Report of the

Blue-Ribbon Task Force

on

Funding Minnesota's Water-Quality Programs

Findings and Recommendations

Pursuant to 1995 Minn. Laws Chap. 220
Sec. 2

December 1995

The Report of the Blue-Ribbon Task Force on Funding Minnesota's Water-Quality Programs was prepared for the Governor and the Legislature, as required by law (Laws of Minnesota 1995, Chapter 220).

This report was prepared under the direction of the task force by the Water Quality Division of the Minnesota Pollution Control Agency (MPCA). The report was written by Jeff Risberg and edited by Ralph Pribble.

Over 70 MPCA staff contributed technical and administrative support to the work of the task force over a period of more than five months. The task force extends special thanks to staff for its outstanding efforts. A total of $161,550 was spent by the MPCA to support the task force (see Appendix D for itemized summary), including consulting costs, staff time, mailing and printing costs. (The actual printing cost for 225 copies of this report was approximately $1,200.)

For a copy of the executive summary of this report, call the Water Quality Division at (612) 296-7202 or write to: MPCA/WQ, 520 Lafayette Road, St. Paul, MN 55155. Copies of the full report are available for purchase at the Minnesota Book Store, (612) 297-3000.

This report can be made available, upon request, in other formats, such as in large type, audio tape or in Braille.

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December, 1995

The Honorable Arne H. Carlson
Governor
State of Minnesota
130 State Capitol
St. Paul, MN 55155

Members of the Legislature
State of Minnesota
St. Paul, MN 55155

Dear Governor Carlson and Members of the Legislature:

As required under Laws of Minnesota 1995, Chapter 220, I am very pleased to submit this report from the Blue-Ribbon Task Force on Funding Minnesota's Water-Quality Programs.

The report is the product of over four months of deliberations by a 13-member task force representing industry, municipalities and the environmental community. The report describes our consensus recommendations on ways to fund and improve the performance of the point-source water-quality programs of the Minnesota Pollution Control Agency (MPCA).

We sincerely hope that our work will help pave a new path for state government programs striving to maintain or provide even better service, but at less cost. This is the reality confronting all levels of government, particularly in light of today's federal budget climate. Our work provides a process to achieve this critical financial goal for the MPCA's point-source programs, while ensuring that the quality of Minnesota's waters will be protected and preserved for future generations.

I look forward to talking with you further about this report and the work of the task force in the weeks ahead. We believe this report represents an exciting opportunity for all Minnesotans to meet the challenges of the future.

Sincerely,

Mike Robertson

Mike Robertson
Task Force Chair

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Membership of the
Blue-Ribbon Task Force on Funding Minnesota's Water-Quality Programs

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Executive Summary

About the task force

The Blue-Ribbon Task Force on Funding Minnesota's Water-Quality Programs was established by actions of the Legislature and Governor in Laws of Minnesota 1995, Chapter 220 (Sec. 2, Subd. 2).

The task force was created (see list of members on facing page) to address a severe funding shortfall in the point-source permitting program administered by the Minnesota Pollution Control Agency's (MPCA) Water Quality Division (WQD). The point-source program is responsible for regulating all discharges of municipal and industrial wastewater (called "point sources" because they have discrete discharge points) into all surface and ground water in the state.

Federal and state general funding sources for this program have declined steadily over the last several years. The 1995 Legislature provided temporary funding for the 1996-97 biennium to prevent a shortfall with the stipulation that a Governor-appointed Blue-Ribbon Task Force investigate the adequacy, costs and other issues related to the program. The task force was charged by the legislation to examine and report on seven specific issues relating to the point-source program:

1. What constitutes an adequate point-source permitting program;
2. What the associated costs are of running an adequate program;
3. How these costs should be allocated and funded;
4. Load-based fees;
5. Fees for permittees that have violations requiring enforcement actions;
6. How to improve public access to information concerning toxic pollutants in permitted discharges; and
7. A time reporting system to improve tracking of resource usage.

We began our work on July 31, 1995, and reached consensus on our recommendations by November 30, 1995. An additional meeting was held on December 6 to review the final recommendations. Our work was guided by the input of an independent study conducted by the consulting firm Arthur Andersen LLP, as well as by two subcommittees, three stakeholder focus groups, and numerous comments from environmental, business, municipal, state agency and legislative representatives.

This report is submitted, as required, to the Governor and Chairs of the Senate Finance and House Ways and Means Committees, as well as the Chairs of the Environmental Policy and Finance Committees and Divisions of the Senate and House of Representatives.

Summary of findings and recommendations

Overarching all of our recommendations is a deep commitment to protect Minnesota's water resources and preserve them for future generations. The point-source program is the primary regulatory tool used to protect the state's surface and ground waters from contamination. We want to assure that the program continues to protect Minnesota's waters for all of their designated-value uses, including safe drinking water, recreation, wildlife habitat, agriculture, and industrial needs.

Our findings and recommendations are reported in terms of six topic areas (Charges 2 and 3 are combined in one topic). The topics and related charges are:

I. Program adequacy (Charge #1)
II. Program costs and funding sources (Charge #2, 3)
III. Permit fee system (Charge #4)
IV. Enforcement fees (Charge #5)
V. Toxics information (Charge #6)
VI. Time reporting (Charge #7)

Following is a summary of our findings and recommendations for each topic.

I. Program Adequacy

The findings and recommendations under this topic relate to Charge #1, "What constitutes an adequate point-source program?" In general, we conclude that an adequate program should meet these criteria:

1. Retain environmental improvements already achieved through the point-source program, and protect and preserve Minnesota's water resources and preserve them for future generations.

2. Assure strong ambient monitoring capabilities to measure and assess water-quality trends statewide.

3. Meet the service-level criteria of its stakeholders — permittees, environmental groups, and the general public — in a cost-effective manner.

4. Promote a positive agency/ stakeholder relationship.

5. Seek continuous improvements in efficiency and effectiveness to improve water quality, including:
   - embracing innovation
   - creating incentives
   - establishing and enhancing partnerships
   - promoting competition by exploring alternative service delivery
   - coordinating and balancing environmental management strategies through basin management
   - ensuring that the benefits gained from improved efficiencies are directed to point-source efforts
   - encouraging pollution prevention to reduce the need for up-front regulation.

6. Maintain the U.S. Environmental Protection Agency's (EPA) point-source program delegation, while continuing to negotiate with the EPA to reduce the administrative workload and unfounded federal requirements.

Bottom line: higher service at less cost

Our deliberations are in response to a "new era" wherein the challenge is to provide a higher level of service at a lower cost. Business and non-profit organizations alike have been faced with this reality for several years and have learned to do more with less. Government at all levels is confronted with this same challenge.

The Andersen report indicates the MPCA has significant opportunities for cost reduction in the program while maintaining and even enhancing the level of service. We conclude, therefore, that the Agency has the potential to meet the above adequacy criteria with existing resources.

In other words, the bottom-line goal of Minnesota's water-quality program should be one of high service and low cost.

This will require meeting specific, measurable goals (described below), to be reached through a number of recommended process reforms. We also recommend a Phase II project, described below, to further assess, design and implement these reforms.

This bottom-line goal is consistent with the state's overall policy to lower the price of government in Minnesota from 18.4 percent of personal income today to no more than 17.7 percent by fiscal year 1999 ("price of government" targets adopted during the 1995 Legislative session).

Recommendations

Goals to achieve an adequate program

We set "stretch goals" for the program, with the overall goal of increasing the level of program service while reducing costs. We define a "stretch goal" as a goal that may be ambitious but is not beyond current capability. We established stretch goals for service levels in each of the four major program activities — permitting, compliance and enforcement, water-quality standards and monitoring, and training and assistance. The goals are based on the results of a state benchmarking study (part of the Andersen study) which compared the MPCA's service and funding levels to 16 other states.

The stretch goals for each functional area are:

1. Permitting

The service-level criteria we examined for permitting were:
- permit backlog percentage
- average weeks to issue a permit
- percentage of facilities receiving pre-permit assistance on new construction.

Considering these criteria, Minnesota's funding level is equal to the mean (or average) of all states surveyed, yet its service is slightly lower than average.

Our stretch goal for permitting is that the MPCA should implement further efficiencies to increase service levels to at least the average of all other states surveyed. Nine actions are recommended to achieve this goal, ranging from reform of the permit approval process to streamlining the technical review process (p. 28).

2. Compliance and enforcement

The service-level criteria for compliance/enforcement were:
- percentage of facilities inspected
- frequency of inspections.

Considering these criteria, Minnesota's funding level is slightly above the average while its service is below the average of all other states surveyed.

Our stretch goal for compliance and enforcement is that the MPCA should seek improvements to increase compliance and enforcement service to at least the average level compared to all other states surveyed. We recommend two key actions to achieve this goal: exploring multi-media inspections and increasing the ratio of inspections to staff (p. 31).

3. Water-quality standards and monitoring

The service-level criteria for water-quality standards and monitoring were:

- number of sites monitored for ambient water quality compared to number of river miles
- percentage of river miles assessed
- percentage of lake acreage assessed
- new effluent limits reviewed as a percentage of permits issued.

Based on these criteria, Minnesota's funding is just slightly below the average and its service level is slightly above the average for all states surveyed.

Our stretch goal in this area is that the MPCA should continue this level of service. In order to maintain this goal, we strongly recommend that the Legislature support and enable the acceleration of the MPCA's plan to acquire 50 more permanent ambient monitoring stations. Two other actions are also recommended to improve efficiencies for this activity: extending the cycle of standards review and using basin management to coordinate data collection (p. 31).

4. Training and assistance

The service-level criteria for training and assistance were:

- number of people receiving training
- number of classes offered
- whether on-the-job training was offered
- percentage of wastewater treatment operators certified in the state.

Based on these criteria, both Minnesota's funding and service levels are above the average for all states surveyed.

Our stretch goal for training and assistance is that the MPCA should maintain this high level of service, however it should make the training function self-supporting. We also recommend the MPCA expand the industrial operators award program (p. 33).

5. Other recommendations

In addition to the functional-area recommendations listed above, we made two additional recommendations for improving service levels in general:

a. Support and assess current process improvements of the Agency and the Water Quality Division to improve efficiencies and effectiveness. Current improvements include basin management, DELTA, Project XL, and self-auditing.

b. Seek opportunities to enhance partnership with the region 5 office of the EPA. The MPCA

should negotiate with the EPA to reduce administrative workloads and unfounded federal requirements.

6. Implementation of program adequacy goals: Phase II

As noted in Arthur Andersen LLP's final report (see Appendix A), in order to determine whether the MPCA can achieve the stretch goals for increased service, significant additional analysis is needed to assess, quantify, design and implement process reforms.

We agree with Andersen's assessment and strongly recommend that a Phase II project be funded by the Legislature and implemented in 1996. With this additional effort, this project has the potential to achieve our ultimate goal of higher service levels at lower cost. By achieving this goal, the MPCA will become a model for both environmental and social service agencies that are facing a steady decline in public funding but must continue to meet an ever-growing demand for service.

The potential long-term budget savings projected in Phase II will guide the Agency's future appropriation recommendations to the Legislature, beginning in 1997.

II. Program Costs and Funding Sources

This topic relates to Charges #2 and #3, "What are the associated costs of running an adequate program?" and "How should these costs be allocated and funded?"

As noted in the program adequacy discussion, we conclude that with the implementation of key process improvements, existing program funding levels (currently $6.9 million) are sufficient to achieve an adequate point-source program. The point-source program has three primary funding sources: 1) state general fund, 2) federal funding, and 3) permit fees.

Recommendations

Specifically, we recommend the following funding strategy for the point-source program:

1. Maintain existing sources.

a. For the next biennium, there should be no increases in overall program funding above FY 96-97 levels ($6.9 million annually), in order for the program to seek efficiencies.

b. The general fund appropriation for the program, as presently constituted, should remain at least at the FY 96-97 level. If

the state's policy allows for inflationary adjustments, then we recommend that this program be granted an inflationary increase as well.

c. After stretch-goal service levels have been met, any additional efficiencies should be used to reduce the overall program costs. We recommend, as a stretch goal, that the Agency reduce the point-source program budget by at least 15 percent through the efficiencies and reforms recommended under "Program Adequacy." The feasibility of this goal will be analyzed as a part of the Phase II work (p. 6) as well as opportunities for further budget reductions.

d. Federal funds should be utilized to the greatest extent possible, but reductions are anticipated.

e. Even with recommended efficiencies, increases in general fund appropriations and fee revenues eventually may be necessary to adequately fund the permit program. The long-term level of fee revenues and general fund appropriations cannot be determined until federal funding levels are known and the Phase II evaluation is completed.

f. When considering fee amounts, municipal and industrial permittees should be considered as separate categories. We recommend that fees should be split between these two categories based on the approximate level of effort required to conduct the four main activities of the point-source program — permitting, compliance and enforcement, training and assistance, and water-quality standards/ monitoring — for each category. The results of Phase II will have a direct impact on the level of MPCA staff resources required for each of these categories. During the development of the next permit fee rule, the MPCA should consider the results of Phase II changes when developing the specific fee amounts for these two permittee categories.

2. Consider new funding sources.

In addition to the existing sources mentioned above, we recommend other new funding sources to recover costs and provide revenue to the point-source program, specifically:

a. *Fee for variance requests.* We believe it is reasonable to charge

a fee to recover costs for the often extraordinary staff resources expended on requests for variances on permitting requirements. Variance fees will be further assessed and designed during the MPCA's next permit fee rulemaking process, beginning in the spring of 1996.

b. *Appropriation increase for the MPCA's Environmental Enforcement Account.* We recommend that the Legislature raise the MPCA's Environmental Enforcement Account appropriation from its current level ($558,000 for FY 97). Further, we recommend that the MPCA commissioner allocate increased resources from this fund to the Water Quality Division to supplement needed efforts in training and enforcement-related monitoring activities.

c. *State lottery proceeds.* Following the sunsetting of constitutional provisions for state lottery proceeds in the year 2001, we recommend that the Legislature consider allocating a portion of these proceeds to the point-source program.

III. Permit Fee System

In regard to Charge #4, "Address load-based fees," we evaluated that system and two others against criteria we established for developing a model system for charging permit fees. The systems evaluated were:

- The *current* fee system, where fees are calculated according to a relatively flat, four-tier cost structure, based upon design size of a facility.
- A *load-based* system, where fees are calculated according to the types and amounts, or "loads," of pollutants discharged.
- A *flow-based* system, where fees are calculated according to the overall volume of a discharge rather than the types of pollutants discharged.

After evaluating the current permit fee system against model criteria, we conclude that the current system of charging fees is inequitable, particularly to small communities, and should be replaced with a new fee system.

In terms of the other two system models, we reached consensus that the flow-based system met the model criteria. The representative for the environmental community, however, believed that the load-

based system met the criteria and stated that the many environmental groups she represented had a strong preference for this system.

Recommendations

1. As a result of our evaluation of the models, we recommend that the MPCA implement a new flow-based fee system. Two separate flow-based models were developed to accommodate the special needs of municipal and industrial permittees. Both models are designed to collect the correct amount of fees approved for the program. One of the key differences between them is that the industrial model has a limited load-based factor for mine-pit dischargers. Further refinement of the flow-based models is continuing and will be finalized during the MPCA's fee rulemaking in 1996.

IV. Enforcement Fees

Our discussions on this topic relate to Charge #5, "Address fees for permittees that have violations requiring enforcement actions." Currently the MPCA does not charge extra fees to cover costs incurred when enforcement actions are necessary.

Recommendations

We discussed several options for implementing enforcement fees, ranging from scaled surcharges on enforcement actions to permit-fee refunds for permittees who are in full compliance.

1. While we conclude that a major portion of the enforcement staff's time is spent on a small number of permittees, we do not believe an enforcement fee is a workable option for recovering costs. Our rationale for this conclusion was that the current amount the Division collects in monetary penalties approximates the cost of enforcement activities, and enforcement fees would be perceived as an incentive for the MPCA to enforce more vigorously in order to fund the program. This perception could complicate and delay penalty negotiations.

2. Although we rejected an enforcement fee mechanism, we recommend that the Water Quality Division recover the reasonable administrative costs of executing stipulation agreements. These costs could be factored into penalty calculations during negotiations. Stipulation agreements require an extraordinary level of staff

time, far beyond normal compliance and enforcement activities. This may require special legislative authorization.

V. Toxics Information

In regard to Charge #6, "Address how to improve public access to information concerning toxic pollutants in permitted discharges," we evaluated a proposal considered by the 1995 Legislature to post signs at discharge sites of permitted facilities to provide the public with better information on the type of pollutants, including toxics, being discharged there.

Recommendations

1. We recommend that this information should be provided on maps created by public agencies, including the Minnesota Department of Natural Resources, and private entities. Information suitable for mapping will be available in approximately four years, following completion of a Water Quality Division project to pinpoint discharge sites via the global positioning system. If the project cannot be completed in this time frame because of funding limitations, its implementation should be re-evaluated.
2. We also recommend that the Division provide this information to the State Emergency Response Commission for possible emergency response use or for general information purposes.

VI. Time Reporting

In considering the final charge to address "A time reporting system to improve tracking of resource usage," we recommend the MPCA use a function-based, rather than a permit-based time reporting system (see sample time reporting form in Appendix G). This system can be used and its effectiveness evaluated through SEMA4 (the state's new computerized personnel payroll system).

Recommendation

1. The Water Quality Division should implement a new, Division-wide time reporting system based on job function. This will help improve the management of the Division and its accountability to MPCA's stakeholders by better tracking staff resources and priorities.

Introduction

About the task force

The Blue-Ribbon Task Force on Funding Minnesota's Water-Quality Programs was established by actions of the Legislature and Governor in Laws of Minnesota 1995, Chapter 220 (Sec. 2, Subd. 2). The task force was created to address a severe funding shortfall in the point-source permitting program, administered by the Minnesota Pollution Control Agency's (MPCA) Water Quality Division.

The MPCA's point-source water-quality program is responsible for regulating all discharges of municipal and industrial wastewater (called "point sources" because they have discrete discharge points) into the surface and ground waters of the state. See Appendix B, "Inventory of Point-Source Program Activities," for a detailed description of the point-source program.

Specifically, the point-source program is responsible for the issuance and enforcement of National Pollutant Discharge Elimination System (NPDES) and State Disposal System (SDS) permits. Currently, a total of 103 staff manages all of the point-source program's industrial and municipal permit activities. These activities fall into the functional areas of:

- Permitting
- Compliance and enforcement
- Water-quality standards and monitoring
- Training and assistance.

The bulk of the point-source work is conducted by the Division's Point-Source Compliance Section. The Monitoring and Assessment Section, Regional staff, and the Division Manager's office also provide support directly related to permit issuance. (See the Divisional organization chart in Appendix B.)

Federal funding sources for the point-source program have declined steadily over the last several years. The 1995 Legislature provided temporary funding for the 1996-1997 biennium to prevent a shortfall with the stipulation that a Governor-appointed Blue-Ribbon Task Force investigate the adequacy, costs and other issues related to the program. Specifically, the authorizing legislation states:

"The Governor shall appoint an advisory task force to examine the point-source permitting program in the Water Quality Division of the Minnesota Pollution Control Agency. The task force must include representatives of industrial and municipal

permittees regulated by the MPCA and environmental interest groups. The task force shall report to the Governor and Chairs of the Senate Finance and House of Representatives Ways and Means Committees, and Chairs of the Environmental Policy and Finance Committees and Divisions of the Senate and House of Representatives by November 30, 1995 . The report must address the following issues:

1. What constitutes an adequate point-source permitting program;
2. What the associated costs are of running an adequate program;
3. How these costs should be allocated and funded;
4. Load-based fees;
5. Fees for permittees that have violations requiring enforcement actions;
6. How to improve public access to information concerning toxic pollutants in permitted discharges; and
7. A time reporting system to improve tracking of resource usage."

The task force was appointed by Governor Carlson in July of 1995. Each of our 13 members represent key stakeholders. They agreed to act as liaison for the groups they represented and work cooperatively together to address the issues contained in the authorizing legislation.

Description of point-source program activities by functional area

As detailed in Appendix B, the following are brief descriptions of the point-source program's four functional areas — permitting, compliance and enforcement, water-quality/monitoring, and training and assistance.

Permitting

Federal law prohibits the discharge of pollutants to surface waters unless a National Pollutant Discharge Elimination System (NPDES) permit has been issued. Similarly, Minnesota law requires a State Disposal System (SDS) permit for the operation of a wastewater disposal system, and for discharges to waters of the state ("waters of the state" include both surface and ground water).

These permits are issued to regulate the discharge of municipal and industrial wastewater, dredge-spoil disposal, feedlots and aquaculture operations, and to restore and protect waters of the state for their designated beneficial uses (e.g., fishable/swimmable

criteria, drinking-water supply, agricultural uses). Facilities that do not have a direct discharge to waters of the state, such as those which irrigate or infiltrate their wastewater as a means of treatment and disposal, do not strictly fall under the NPDES rules; however they still are required to obtain an SDS permit.

The Water Quality Division's permitting activities in the NPDES/SDS program for point-source dischargers comprise the following:

- application review
- technical review
- establishment of effluent limits and conditions
- determination of pretreatment requirements
- preparation of permit documents and fact sheets
- public noticing
- final issuance

The Division coordinates permitting, compliance, standards, and technical assistance for approximately 1,365 existing permits. In addition, the Division issues new permits or permit modifications for new construction (65 municipal and 50 industrial in 1994). The MPCA issues an average of 160 municipal and industrial permits (100 municipal, 60 industrial), plus an additional 600 sewer extension permits, each year.

This activity includes issuing permits for existing facilities with expired permits and for new facilities or those requiring upgrades due to increased development around them. Priority is given to permits for new facilities and expansions of existing facilities. The Division recognizes that economic activity that drives construction is essential for Minnesota's economy, and the MPCA gives top priority to these types of permits. Priority is also given to major permits (those facilities with a design flow greater than one million gallons per day) because they represent the greatest pollutant loading to the state's waters and thus the greatest potential threat to the environment.

Compliance and enforcement

The major activities of the compliance and enforcement program include:

- conducting inspections
- evaluating compliance
- initiating enforcement actions in cases of serious non-compliance
- providing administrative and technical assistance

The workload in this area includes

all permittees. Seventy-nine of the Division's point-source permittees are major facilities. Compliance activities are performed by staff located in the central and regional offices. Specific staffing activities include compliance assistance, inspections, enforcement, technical support, and data entry.

Since 1990, more staff are working in regional offices. In addition, industrial point-source efforts have been strengthened with four additional inspection staff in 1990. These increased resources have helped to keep the industrial permit backlog from significantly increasing by addressing non-compliance issues prior to permit reissuance.

Water-quality standards and monitoring

The purpose of the water-quality standards and monitoring program is to determine, adopt, and implement standards that will ensure protection for the specified uses of waters of the state. Minn. Rules Chapter 7050 are the basis of MPCA programs that control the amount of pollutants entering our waters from point sources such as wastewater treatment facilities and industrial plants, and non-point sources such as runoff from rural and urban areas. These standards dictate the maximum amount of pollutants allowable in a body of water. Activities of the point-source program associated with water-quality standards are broken down into:

- rules and rulemaking
- ambient water-quality standards
- effluent limitations
- ambient water-quality monitoring

The MPCA establishes water-quality standards for all waters of the state by first determining the "designated use" of a given water body, for example drinking-water supply, cold-water fishery, use for human contact such as swimming, etc. Then, using established water-quality criteria of the U.S. EPA, the MPCA determines a water-quality standard, or limit, for each pollutant so that those uses of the water body are protected. The MPCA sets effluent limits for individual permittees based on the standards for the receiving waters, and on the rules and monitoring results. In addition, all permits undergo non-degradation review, which is based on the state's policy to protect waters of the state from further degradation and to maintain existing water-quality standards.

Training and assistance

Within the Water Quality Division, the training and assistance function is organized to perform the following tasks:

- operator training
- State Revolving Fund (SRF) program management
- technical assistance

Operator training provides between 15 and 20 training sessions annually for over 1,500 wastewater operators. In addition, operator certification, on-the-job training and assistance, project review, and the annual evaluation and planning survey are provided. The SRF program currently is providing funding for 114 municipal projects on the project priority list. These projects have estimated construction costs of over $49 million in 1995. Decreases in available construction grant funding have caused an increase in requests for SRF funds.

In general, there has been a growing demand for MPCA's operator training programs. For example, 1,000 people attended training in 1984, while in 1994 the number attending was 1,700. The number of certified operators has increased from 1,500 in 1984 to 2,750 in 1994.

Meeting the charges: the task force work plan

We began our work on July 31, 1995 and reached consensus on recommendations by November 30, 1995. An additional meeting was held on December 6 to review the final recommendations. Over the course of these meetings, we sought the input of many groups including representatives of the Governor's office and department of finance, Senator Steve Morse, and Representative Virgil Johnson. Meeting our charges required an intensive work plan, including seven full meetings, 10 subcommittee meetings and three focus groups. The following is a description of some of our major activities.

Independent outside assessment of program adequacy and costs

At our request, Arthur Andersen LLP, a worldwide auditing and consulting firm, was contracted by the MPCA to conduct an independent assessment of the point-source program's adequacy and cost. Andersen was uniquely qualified for this assessment, having conducted similar projects for the Indiana State Department of Environmental Protection and the Illinois Environmental Protection Agency.

Andersen provided regular updates to the task force. The findings of Andersen's study provided the foundation for our conclusions on program adequacy. The report also gave us the information we needed to set measurable goals to improve the program and identify several specific opportunities for process improvement to meet those goals.

Andersen's findings and methodology are summarized beginning on page 21 of this report. In addition, a complete copy of Andersen's final report is provided in Appendix A.

Subcommittees

We formed two 13-member subcommittees, the Funding Options Subcommittee and the Load-Based Fees Subcommittee (members are listed in Appendix C). Each subcommittee conducted five meetings, developing critical recommendations for the consideration of the overall task force.

Specifically, the Funding Options Subcommittee developed recommendations for Charge #3, related to funding sources and allocation, and Charge #5, related to the issue of enforcement fees. The subcommittee also established criteria to evaluate the viability of funding options. Ten new sources of funding were considered, five of which were recommended to the task force. The subcommittee heard presentations from Laura King, commissioner of the Department of Finance, and Doug Watnemo, the department's executive budget officer covering environmental agencies. It also considered numerous reports on funding issues prepared by MPCA staff.

The Load-Based Fees Subcommittee focused its work on Charge #4, providing the task force with an extensive evaluation of three different permit fee systems. The subcommittee developed criteria for a model fee system in order to evaluate three different fee systems. The subcommittee also considered numerous computerized analyses of these systems, in order to compare their ability to meet the criteria. After extensive analysis, two different systems — a flow-based system and a load-based system —were forwarded to the task force without recommendation. The subcommittee also recommended the initiation of application fees for sludge-site approvals.

Staffing

To complete this intensive assignment, we required significant support from MPCA

staff. A team of four staff in the Water Quality Division worked nearly full-time for five months, and another 66 staff contributed research and expertise as needed throughout the project. (See Appendix D for a summary of all costs related to support the task force.)

Findings and Recommendations

This section of the report details our findings, recommendations, and implementation steps in six topic areas that relate to our legislative charges (Charges 2 and 3 are combined in one topic). The topics and related charges are:

- Program adequacy (Charge #1)
- Program costs and funding sources (Charge #2, 3)
- Permit fee system (Charge #4)
- Enforcement fees (Charge #5)
- Toxics information (Charge #6)
- Time reporting (Charge #7)

The following pages explain our findings and recommendations in these areas, with relevant background material.

Overarching goal: protect and preserve water quality

Overarching all of our recommendations is a deep commitment to protect and preserve Minnesota's water for the benefit of future generations. The point-source program is the primary regulatory tool used to protect the state's surface and ground waters from contamination. Our overarching goal was to ensure that the program continues to protect Minnesota's waters for all of their valued uses, including safe drinking water, recreation, wildlife habitat, agriculture, and industrial needs.

Program Adequacy

The findings and recommendations under this topic relate to Charge #1, "What constitutes an adequate point-source program?"

Background: The Andersen report

At our request, Arthur Andersen LLP, a worldwide auditing and consulting firm, was contracted by the MPCA to conduct an independent assessment of the point-source program. As described on page 3-A of its report (see Appendix A), Andersen's work plan included information gathered through a benchmarking survey, individual and group interviews with a wide range of MPCA stakeholders and staff, three focus group sessions held with stakeholders statewide, and an analysis performed at our request to define the resource and funding requirements associated with permitting programs providing "top," "middle," and "bottom" levels of service.

In addition to assessing the adequacy of MPCA's point-source program, Andersen was also tasked with identifying potential opportunities for improving the point-source program. In order to perform the assessment and identify opportunities for improvement, Andersen first performed a process review of MPCA's point-source program activities in the four major activity areas of permitting, compliance and enforcement, water-quality standards and monitoring, and training and assistance. Specifically, key tasks and subtasks of the process review included:

- Andersen prepared an extensive and detailed benchmarking survey and sent it to 18 states, including Minnesota. The survey was designed to collect information about the funding levels and services provided by each state. The survey did not collect information on the effectiveness of the different state programs in protecting water quality nor did it consider the extent of the resources (number of river miles, lakes, etc.) that the states are charged to protect. (A comparison of program effectiveness is difficult because each state uses different criteria to measure improvements in water quality. EPA and the states have joined in an effort to develop national environmental indicators that would allow for this type of comparison.)

The states chosen included all those comprising U.S. EPA Region 5 as well as others chosen

because of demographic, geographic, environmental, or program attributes which were similar to Minnesota. Sixteen of the 18 states responded to the survey. A full listing of the state participants as well as all survey questions and responses is provided in Exhibit B of Andersen's report (Appendix A). Three of the participating states requested anonymity. Those states are referred to as States X, Y, and Z throughout the Andersen report.

- Andersen interviewed approximately 20 MPCA staff members and managers assigned various point-source program responsibilities.

- Three half-day focus group sessions were held at three locations (Alexandria, Duluth, and St. Paul) and attended by approximately 20 participants representing the range of MPCA stakeholders, including from industry, municipalities, and environmental interest groups. The main focus of these sessions was to identify opportunities for improving the MPCA's permitting performance. Summaries of these focus groups are found in Exhibit C of the Andersen Report.

- Andersen compiled relevant "best business practices" implemented by other leading organizations.

- To compare Minnesota's program with those of the 16 other states surveyed, specific service-level criteria were established and weighted for each functional area of the point-source program. These criteria were used to rank Minnesota's performance in these areas in relation to the 16 other states who responded to the survey. The criteria were (by functional area):

<u>Permitting</u>
Permit backlog percentage; average weeks to issue permit; percentage of facilities receiving pre-permit assistance on new construction.

<u>Compliance & enforcement</u>
Percentage of facilities inspected; frequency of inspections (minors).

<u>Water-quality standards and monitoring</u>
Number of sites monitored for ambient water quality/number of river miles assessed; percentage of river miles assessed; percentage of lake acreage assessed; new effluent limits reviewed as a percentage of permits issued.

Training & assistance
Number of people receiving training; number of classes offered; whether on-the-job training was provided; percentage of wastewater treatment operators certified.

- Based on these service-level criteria, the funding/performance matrices (figures p. 25) were designed to assess the level of service provided in each of MPCA's four key activity areas relative to the funds expended to achieve that level of service. The matrices provide a graphic representation of Minnesota's performance relative to the 16 states that participated in the benchmarking survey.

The position of each state within each matrix represents the convergence of that state's annual program funding and its service-level performance relative to each of the other states in that functional area. Those states near the lower right-hand corner offer the best price (funding)/performance ratio. It should be noted that the funding levels have not been normalized to reflect differences in the size of the various state programs relative to demographics or any other factors.

Major findings of the report

As shown in the matrices, the major findings of the Andersen evaluation are:

Permitting
Minnesota's funding level is equal to the mean (or average), yet its service is slightly lower than average, in comparison to the average for all states surveyed. Specifically, Minnesota's permit backlog is 34 percent versus 28 percent and weeks to issue a permit is 47 weeks vs. 36 weeks. One factor driving this is Minnesota's current permit issuance rate of 6.7 permits per FTE, which is relatively low compared to other states.

Compliance and enforcement
Minnesota's funding level is slightly above the average, while its service is below the average for all states surveyed. Minnesota's percentage of facilities inspected is 32 percent versus 39 percent, which represents the average of all states.

Water-quality standards and monitoring
Minnesota's funding is just slightly below the average and its service level is slightly above the average for all states.

Training and assistance
Both Minnesota's funding and service levels are above the average for all states surveyed. The MPCA currently has more FTEs (3.4) in this area than all but four of the benchmarked states. In addition, many other states out-source their training programs and many others recover a higher percentage of costs. Minnesota currently only recovers a portion of its costs.

Process change analysis and options to improve the program

Following the program evaluation, Andersen performed a "process change analysis" to identify options to improve the program. The analysis was based on the results of the state benchmarking survey and three focus groups held with outside stakeholders. The purpose of these activities was to identify performance improvement opportunities and "best business practices," as well as potential savings and/or efficiencies which might be gained through changing processes or regulations. The Andersen study identifies many important opportunities for reforms that could increase service and reduce costs.

However, the Andersen report cautioned that further examination of the potential savings offered by process reforms would be needed, and that "it would be inappropriate to draw any conclusions or make any recommendations related to staffing levels or funding options based solely on this analysis." (p. 3-D, Andersen report.)

Criteria for adequate program

In the process of reviewing the Andersen findings, we reached consensus on what constitutes an adequate point-source program. We conclude that an adequate program should meet these criteria:

1. Retain environmental improvements already achieved through the point-source program, and protect Minnesota's water resources and preserve them for future generations.

2. Assure strong ambient monitoring capabilities to measure and assess water-quality trends statewide.

3. Meet the service-level criteria of its stakeholders (permittees, environmental groups, and the general public) in a cost-effective manner.

4. Promote a positive agency/ stakeholder relationship.

least the average for these three areas in comparison to other states surveyed.

Actions recommended to reach permitting goals

a. *Issue 10-year permits*. If approved, this federal statutory change of the Clean Water Act would relieve the state of issuing permits on a five-year cycle and spread this effort out over a 10-year period. Opportunities may exist, however, to administratively reissue a permit "as is" for a 10-year period through negotiated EPA approvals. A 10-year permit could in the future be reopened with cause (e.g., changes in effluent or assimilation capacity of receiving water) at any time to ensure that water quality is protected.

b. *Reform permit application process*. Potential changes in the process of permit application include:
   - update the application form and make it more "user friendly;"
   - provide a checklist and better guidance to help permittees better complete application forms;
   - other changes should be considered with program criteria (above) in mind.

c. *Reform permit approval process to increase ratio of permits issued per FTE* (full-time equivalent staff). The Agency 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 efficiencies can be achieved in this area without compromising the quality of the final permit.

d. *Expand the use of general permits*. The MPCA received delegation for the general permit program in 1987. General permits can be issued to a category of permittees whose operations, activities, discharges or facilities are similar. A general permit can create efficiencies because the permit is public-noticed and drafted only once. Since 1987, the MPCA has permitted approximately 250 facilities under four new types of general permits, such as asphalt scrubbers and non-contact cooling water. Additional opportunities are analyzed in Exhibit D of the Andersen report. We recommend greater use of the general permit.

one of providing high service at low cost while still adequately protecting water quality.

Achieving this goal means a new way of allocating resources that will be consistent with the state's overall policy to lower the price of government in Minnesota from 18.4 percent of personal income today to no more than 17.7 percent by fiscal year 1999 ("price of government targets" adopted during the 1995 Legislative session).

Recommendations

We conclude from Andersen's study that existing resources are at least sufficient to provide an adequate point-source program if several process improvements and best business practices are implemented. We identified several opportunities which are described in the recommendations below. A Phase II project also is recommended to further analyze the feasibility of goals and process improvements and begin implementation (p. 35).

Our recommendations for program adequacy are framed in terms of "stretch goals" in each of the four functional areas. We defined a "stretch goal" as a goal that may be ambitious but not beyond current capability. The stretch goals are linked to specific recommended actions. Following are the goals and actions for each functional area.

1. Permitting goals/ recommendations

As the permitting matrix (p. 25) indicates, Minnesota's permitting activities are equal in cost to that of other states surveyed yet slightly lower in the level of service provided. The MPCA should seek efficiencies to increase service levels to be at least equal to the average of the other states surveyed.

The table below shows the current and stretch-goal service levels for three key areas: 1) average weeks to issue a permit, 2) percentage of backlogged permits, and 3) number of permits issued annually per full-time staff. All three of these areas show Minnesota lagging behind other states surveyed. The stretch goal calls for raising service to at

	Avg. weeks to issue	Backlog%	Permits/FTE
Current	47	34	6.7
Min. Goal	36	28	13.6

5. Seek continuous improvements in efficiency and effectiveness to improve water quality including:
   - embracing innovation
   - creating incentives
   - establishing and enhancing partnerships
   - promoting competition by exploring alternative service delivery
   - coordinating and balancing environmental management strategies through basin management
   - ensuring that the benefits gained from improved efficiencies are directed to point-source efforts
   - encouraging pollution prevention to reduce the need for up-front regulation.

6. Maintain the U.S. Environmental Protection Agency's (EPA) point-source program delegation, while continuing to negotiate with the EPA to reduce administrative workloads and unfounded federal requirements.

The bottom line: higher service at less cost

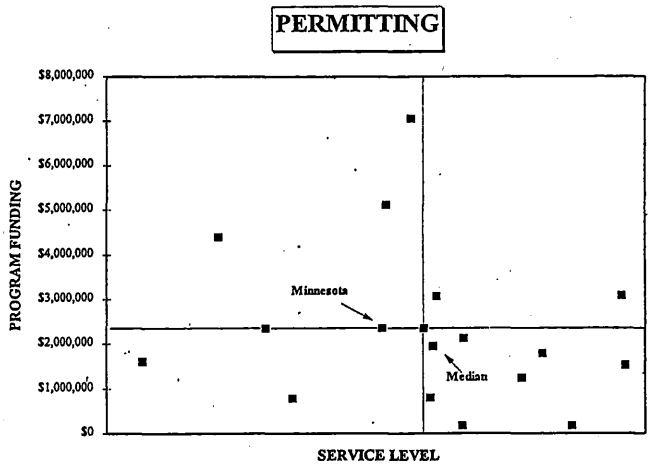
Our deliberations are in response to a "new era" wherein the challenge is to provide higher levels of service at lower cost. Business and non-profit organizations alike have been faced with this reality for several years and have learned to do more with less. Government at all levels is confronted with this same challenge.

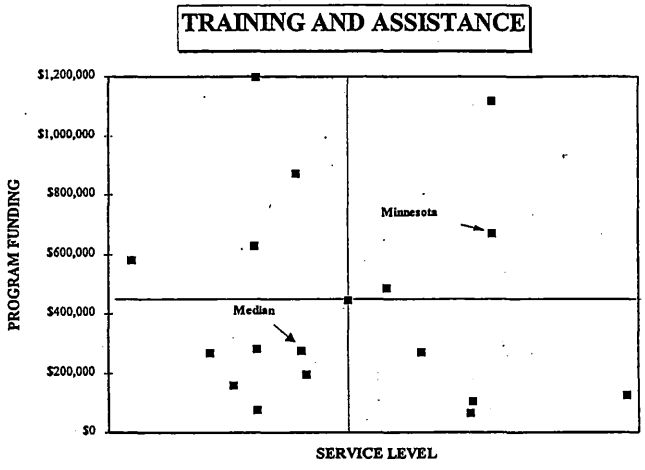
The business sector has found that a high level of service can be maintained and enhanced while at the same time achieving significant cost reductions. We recognize that since 1990, the MPCA has either begun or put in place many important efficiencies and best business practices (see Appendix E). These changes were primarily made in response to reductions in federal support from the phase-out of the constructions grants program, as well as through internal reforms. In total, 40 positions have been eliminated in the Water Quality Division over the last five years.

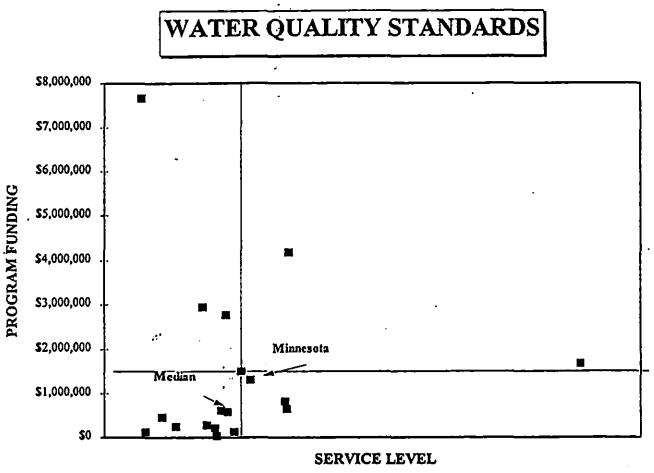
However, we believe the MPCA must achieve further efficiencies in order to meet our state's environmental goals in the most cost-effective manner. The Arthur Anderson report indicates there are significant opportunities for cost reduction in the program while maintaining and even enhancing the level of service.

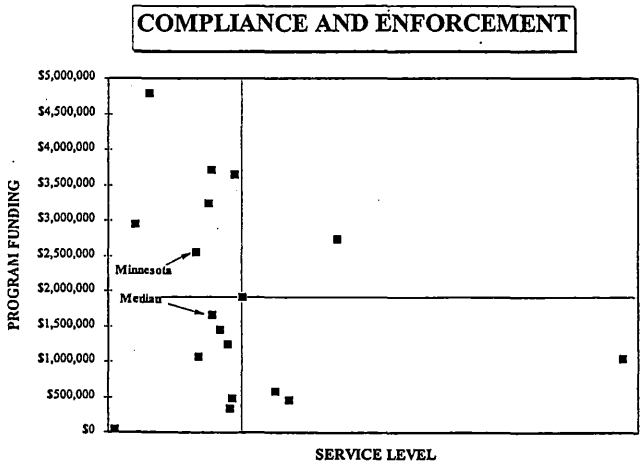
We conclude, therefore, that the bottom-line goal of Minnesota's water-quality program should be

Funding/performance matrices









e. *Increase opportunities for electronic transfer of information.* This will be possible in the long-term through the MPCA's DELTA initiative, an Agency-wide project to integrate and streamline all permitting and compliance programs into one computerized database.

f. *Establish an expedited permit issuance process.* The point-source program can use the model created by MPCA's Air Quality Division as a reference. The Legislature gave that Division the authority to establish an expedited permit process in 1992, allowing the Agency to establish a fee structure for permittees to request air-quality permits within a faster time frame than normal. However, expedited permit requests are not allowed to impact existing permit requests. This model includes a fee-for-service concept. Work is performed either by MPCA staff during overtime, or delegated to a list of pre-contracted consultants. The time frame and estimated fees for processing the permit are negotiated with the applicant in advance and adjusted as necessary to account for public input and environmental review requirements.

g. *Establish a permittee advisory group.* This would be an ongoing group to facilitate dialogue and information exchange between the MPCA and permittees. The MPCA's Air Quality Division has had a similar group in place and their experience would be a helpful reference.

h. *Evaluate the technical review process.* Technical review is required under state and federal law to approve the plans and specifications of new wastewater treatment facilities, and to conduct inspections of those facilities during the construction phase. We recognized that technical review is an important environmental safeguard to ensure the adequacy of facilities. This minimizes violations requiring enforcement actions and prevents environmental damage from occurring in the future. However, we did not reach consensus on the level of technical review that should be conducted by the Agency. Therefore, this issue was delegated to Phase II in order to analyze ways to streamline technical review while ensuring adequate environmental safeguards. Specifically, we recommend that Phase II analyze:

- *Self-certification.* Provide relief from technical review to qualified permittees who meet eligibility requirements for self-certification, such as a consistent record of permit compliance, performance bonds, etc. Certain projects would be ineligible for self-certification because of their potential for water-quality impacts or federal requirements.

- *Dispute resolution.* Consider the experience of the MPCA's Air Quality Division to utilize outside peer review to more quickly resolve potentially lengthy conflicts between permittees and the Water Quality Division on technical issues.

i. *Explore opportunities for multi-media permits.* A multi-media permitting approach would result in issuing a single permit (rather than separate permits for air, water, etc.) to a regulated facility that emits pollution impacting water, air or other resources. This may improve efficiencies for both the MPCA and permittees. Current initiatives in this area need to be assessed, as well as looking at the experience of other states that use multi-media permitting. Basin management and Project XL (described in recommendation 5 below) are program strategies that will facilitate multi-media approaches to permitting.

2. Compliance and enforcement goals/ recommendations

As the compliance and enforcement matrix (p. 25) indicates, Minnesota's compliance and enforcement activities are also somewhat higher in cost when compared with the other states surveyed, yet lower in service levels provided. The MPCA should seek efficiencies to increase service levels to at least the average of other states surveyed.

The table below shows the current and stretch-goal service levels for two key areas: 1) number of facilities inspected, and 2) number of facilities inspected annually per full-time staff. Both of these areas show Minnesota lagging behind more than half of the other states

	% of facilities inspected	Facilities inspected/FTE
Current	32	11.5
Min. Goal	39	24.2

surveyed. The stretch goal for compliance and enforcement calls for raising service to the average for these areas in comparison to other states surveyed. This efficiency improvement should be attained while ensuring appropriate quality assurances.

Actions recommended to reach compliance/enforcement goals

a. *Reform the inspection process to increase the ratio of inspections per FTE.* As identified in the Andersen report, the MPCA conducts a relatively low number of inspections per FTE in comparison to other states. This results in fewer minor facilities being inspected each year. Options should be considered to increase the number of inspections while still ensuring appropriate quality assurance (e.g., split sampling) to adequately assess permit compliance.

b. *Explore opportunities for multi-media inspections.* The MPCA has performed some multi-media inspections; however, the costs and benefits of this type of inspection need to be evaluated. Although we had differing points of view, multi-media inspections could provide a benefit to both the permittee and the MPCA. It may enable permittees to reduce the overall time spent on inspections, while the MPCA would be able to make an overall assessment of facility compliance and pollution-prevention opportunities. The feasibility of multi-media inspections will be analyzed in Phase II. If found feasible, an implementation plan will be developed.

3. Water-quality standards and monitoring goals/ recommendations

The water-quality standards/ monitoring matrix indicates that Minnesota's funding for this component of the point-source program is just slightly below the average and its service level slightly above the average when compared with the other states surveyed. We recommend continuation of this high level of service. However, we strongly support enhancing the MPCA's ambient monitoring program, as described in the recommendation below .

Actions recommended to reach water-quality standards/ monitoring goals

a. *Accelerate the purchase of ambient monitoring stations.* Minnesota has one of the most inadequate ambient monitoring

programs in the nation, due to a lack of monitoring stations. In fact, only about four percent of Minnesota's 92,000 miles of rivers and streams are being monitored for their overall water quality. Ambient monitoring is absolutely essential to measure and assess water-quality trends statewide. The MPCA must be able to better measure the impact of its programs on water quality.

The MPCA has a 10-year plan to construct a statewide network of 60 ambient monitoring stations to provide continuous water-quality data at key river and stream locations throughout the state. Automated continuous monitoring would make it possible for the first time to cost-effectively measure pollutant loadings for Minnesota rivers over a range of flows and seasons. The Legislature appropriated funding for 10 stations in 1994. The remaining 50 stations were to be proposed at a rate of 10 per biennium over the next 10 years. Capital costs are estimated at $20,000 per station (or $1.2 million for 60 stations), and ongoing maintenance and data collection is estimated at $11,000 per year per station (or $660,000 annually plus inflation).

Because these stations provide information on both point-source and nonpoint-source water-quality program results, they provide an important public benefit and should be funded with additional money from the General Fund for capital and operational costs. We recommend that the Legislature consider funding the purchase of these stations at a faster rate than the current 10-year plan. By doing so, the state would save on long-term capital costs while gaining valuable environmental information.

b. *Establish five-year water-quality standard reviews to help reduce workload.* The federal Clean Water Act currently requires review of water-quality standards once every three years. We recommend changing this cycle to five years. Water-quality standards are established for each body of water by first determining the "designated use" of that water, such as drinking-water supply, cold-water fishery, swimming, etc. Then, using EPA's water-quality criteria on the effects of pollutants on humans and

aquatic life, the MPCA determines a standard for each pollutant so that designated uses are protected. Changing this review cycle requires a statutory change to the Clean Water Act.

c. *Use basin management as a means to better coordinate the collection of ambient water-quality data.* A number of state and county agencies, permittees, and volunteer groups conduct water-quality monitoring that could be used to complement MPCA ambient monitoring efforts. We recommend using the basin management process as a tool to better coordinate all of these monitoring efforts. This should help minimize duplication of effort and maximize the use of available ambient monitoring data.

4. Training and assistance goals/recommendations

Minnesota's training and assistance activities rank high on the service level matrix when compared with the other states surveyed. However, the costs for these activities are also higher in comparison to the other states.

The MPCA should seek to maintain a high level of service in this area but should make the training program self-supporting. However, we want to ensure that process changes in this area do not result in a significant reduction in training attendance, particularly for operators from small cities.

Actions recommended to reach training and assistance goals

a. *Make training financially self-supporting while continuing to meet high service levels.* As noted in the goals discussion above, Minnesota's training function is high in service and costs in comparison to other states surveyed. Opportunities to make this activity self-supporting should be assessed, including raising training fees and out-sourcing instruction to technical and community colleges. The MPCA has 3.4 FTEs dedicated to training efforts. Currently, course registration fees pay for less than 0.5 FTE.

b. *Expand the number of permitted facilities that are eligible for industrial operator awards.* This would provide an incentive to improve operator performance and facility operation. Current database limitations result in using general criteria that preclude a number of facilities from

consideration for an award. Better computerization through DELTA will enable the Agency to identify all industrial facilities that are meeting their specific permit requirements.

5. Other recommendations to meet service-level goals

In addition to the functional-area recommendations listed above, we recommend the following for improving service levels in general.

a. *Support and assess current process improvements of the Agency and Water Quality Division to improve efficiencies and effectiveness.* These major reforms include:

- Basin Management. Currently being implemented by the Water Quality Division, this is a new, geographically based approach to managing the point-source and non-point-source programs. Basin management will improve the effectiveness of the MPCA's programs by prioritizing and targeting staff resources to the pollution sources that have the greatest potential environmental impact within Minnesota's nine major drainage basins.

- DELTA. An Agency-wide project to integrate all permitting and compliance programs into one computer database. DELTA will enable the streamlining of permitting and compliance, among many other benefits. The target for implementation of the Water Quality Division's portion is September 1996.

- Project XL. This MPCA/EPA pilot project encourages regulated parties to achieve environmental performance beyond that required by existing regulations in return for regulatory flexibility. Enabling legislation and three to five pilot projects are being planned over the next year.

- Self-Auditing. A program to promote voluntary compliance with environmental requirements, established by the Environmental Improvement Pilot Program Act of 1995.

b. *Seek opportunities to enhance partnership with the region 5 office of the EPA.* The MPCA should negotiate with the EPA to reduce administrative workloads and unfounded federal requirements.

6. Establish Phase II project to achieve program goals

As noted in Arthur Andersen LLP's final report (see Appendix A), a number of process improvement opportunities exist, including the recommendations listed above, which could enable the MPCA to achieve its bottom-line goal of higher service at lower cost. However, to determine whether stretch goals can be achieved without sacrificing gains made to protect water quality, significant additional analysis is needed to quantify, design and implement process reforms.

For example, the stretch goals we established were based upon the initial benchmarking data from other states surveyed. However, no visits or detailed discussions were held with the other states. As noted on page 3-D of the Andersen report, to assess the potential benefits that could result from process changes, a comprehensive analysis and design of key functional activities should be performed. Such an analysis would include a detailed review of potential changes, a conceptual design of the revised processes, as well as an estimate of the cost and effort necessary to implement the changes.

We agreed with Andersen's assessment that additional analysis is needed and recommend that a Phase II project be performed in 1996.

Phase II will require a substantial commitment of resources, from both inside and outside of the Agency. However, the project's long-term benefits clearly outweigh its short-term costs. With this additional effort, this project has the potential to achieve our ultimate goal of higher service at lower cost. By achieving this goal, the MPCA will become a model for both environmental and social service agencies that are facing a steady decline in public funding but must continue to meet ever-growing demands for service.

Phase II activities

Phase II is organized into three distinct steps:

- *Analysis of process improvement opportunities.* This step includes identifying process reforms, analyzing their cost/benefit potential, and determining challenges to implementing the reforms.
- *Design new process improvements and set performance measures.* This step includes designing the specific process changes and developing an implementation plan.

- *Begin implementing process improvements.*

These steps will be completed in a time frame sufficient to guide the MPCA's 1997-1998 legislative budget request. To monitor the design and implementation of Phase II, we recommend that the MPCA create a stakeholder advisory group. This group should represent both permittees and environmental groups.

7. Manage staff transitions

We recognize that some of our recommendations may result in staffing reductions or reassignments. However, there was strong consensus that the MPCA needs to manage this transition so that the impacts are as non-disruptive and considerate of employees as possible. All changes will comply with state labor contract requirements.

Implementation

- Request 1996 Legislature to fund Phase II project to assess and implement process improvements.

- Factor results of potential process improvements and attendant impacts on the Water Quality Division budget into the 1997 legislative appropriation process.

- Implement recommended changes to programs with statutory underpinnings (would require legislative authorization or negotiations with the EPA). Changes to the Clean Water Act are pending.

- The MPCA would organize the two recommended advisory groups: 1) the temporary advisory group to monitor Phase II, and 2) an ongoing permittee advisory group.

Program Costs and Funding Sources

This topic relates to Charges #2 and #3, "What are the associated costs of running an adequate program?" and "How should these costs be allocated and funded?"

Background

As discussed in Charge #1, an analysis was performed to compare Minnesota's point-source program to other states. We conclude from this study that with the implementation of key process improvements, the current funding level of $6.9 million is sufficient to run an adequate point-source program. In addition, if the stretch goals set for the program, as described in the section on program adequacy (p. 27), are exceeded, then the overall costs of the program should decline over time.

The table at right provides a snapshot of the current point-source program budget for the 1996-1997 biennium.

Criteria for a successful funding program

To fulfill the charge of evaluating funding sources for the point-source program, we adopted criteria developed by the Funding Options Subcommittee. These criteria provide the basis from which to judge various options — both new and existing — as being either viable or not viable for funding the point-source permitting program. Our criteria for successful funding are that a program be:

1. **Equitable.** Funding should come from a broad-based payer pool consisting of the state general fund, federal government, the regulated community, and potential new sources of funding. Revenue generated from the fees paid by a particular sector of the regulated community within the point-source permitting program should be proportional to the level of service provided to that sector.

1996-1997 Point-Source Program Budget (dollars in millions)

Fiscal year	1996	1997
Program need	$6.9	$6.9
Funding sources		
federal	1.7	1.2
general fund	2.4	2.4
permit fees	1.8	1.8
bridge funding	1.0	1.3
Total resources	6.9	6.7

2. **Adequate.** Sufficient funds must be made available to fund all costs of running an adequate permitting program. Funding should provide a stable and predictable revenue stream that is not dependent upon penalties collected from enforcement actions.

3. **Accountable.** The permit program shall provide to permittees, elected officials, and the general public an accounting of all revenues and expenditures. There should be adequate legislative oversight of program funding.

4. **Efficient.** The permitting program should implement procedures that promote more efficient use of revenues. Efficiencies can be created in revenue collection and through the development of program priorities. Program costs can be reduced by providing economic incentives that reduce the need for enforcement actions or by allowing permittees to perform some work functions in permit development and other mechanisms.

5. **Simple.** The funding mechanism for the program must be easy to understand, with no additional paperwork.

6. **Politically viable.** The program must use funding sources that have broad public support at both the state and local levels.

Recommendations

1. Maintain existing sources

As noted in the program adequacy discussion (p. 26), we conclude that with the implementation of key process improvements, existing program funding levels (currently $6.9 million) are sufficient to achieve an adequate point-source program. The point-source program has three primary funding sources: 1) state general fund, 2) federal funding, and 3) permit fees. Specifically, we recommend the following funding strategy for the program:

a. For the next biennium, there should be no increases in overall program funding above FY 96-97 levels ($6.9 million annually), in order for the program to seek efficiencies.

b. The general fund appropriation for the program, as presently constituted, should remain at least at its FY 96-97 level. If the state's policy allows for inflationary adjustments, then we recommend that this

program be granted an inflationary increase as well.

c. After stretch-goal service levels have been met, any additional efficiencies should be used to reduce the overall program costs. We recommend, as a stretch goal, that the Agency reduce the point-source program budget by at least 15 percent through the efficiencies and reforms recommended in the discussion program adequacy. The feasibility of this goal will be analyzed as a part of the Phase II work (p. 35) as well as opportunities for further budget reductions.

d. Federal funds should be utilized to the greatest extent possible, but reductions are anticipated.

e. Even with recommended efficiencies, increases in general fund appropriations and fee revenues eventually may be necessary to adequately fund the permit program. The long-term level of fee revenues and general fund appropriations cannot be determined until federal funding levels are known and the Phase II evaluation is completed.

f. When considering fee amounts, municipal and industrial permittees should be considered as separate categories. We recommend that fees should be split between these two categories based on the approximate level of effort required to conduct the four main activities of the point-source program — permitting, compliance and enforcement, training and assistance, and water-quality standards/ monitoring — for each of these permit categories. The results of Phase II will have a direct impact on the level of MPCA staff resources required for each of these categories. During the development of the next permit fee rule, the MPCA should consider the results of Phase II changes when developing the specific fee amounts for these two permittee categories.

2. Consider new funding sources

We also considered two new funding sources to help recover costs and generate new revenue.

a. *Fee for variance requests.* Requests for permit variances take an inordinate amount of time to draft, public notice, and issue. We believe it is reasonable to charge an additional fee to recover the often extraordinary resources expended on variances.

b. *Increase the appropriation for the MPCA's Environmental Enforcement Account.* In each of the last three years, the WQD has collected an average of $316,000 in enforcement penalties. This amount is part of the slightly more than $1 million in penalty moneys (three-year average) that the Agency collects each year. The Legislature appropriates a smaller amount of these moneys back to the Agency's "Environmental Enforcement Account." These funds are used for spills response, internal enforcement training, sampling, enforcement monitoring, and laboratory fees related to enforcement actions. The current appropriation from the general fund for this purpose is $558,000 for FY 97 (includes $116,000 directly appropriated to the Attorney General's Office). Of that amount, the WQD is allocated about $42,000.

   We recommend that the Legislature raise the MPCA's Environmental Enforcement Account appropriation. We further recommend that the WQD receive increased resources through that internal allocation process to supplement needed efforts in training and enforcement-related monitoring activities.

c. *State lottery proceeds.* We consider the proceeds of the State Lottery to be a potential source of point-source program funding after constitutional provisions sunsets in 2001. Funding for water-quality programs should be considered as the Legislature deliberates on new allocations for lottery proceeds.

Implementation

- The 1997 Legislature will consider program appropriation recommendations for the 1998-1999 biennium.
- Fees for variance requests would be finalized through rulemaking to change fee rules in 1996.
- The Legislature should consider increasing the appropriation for the MPCA's Environmental Enforcement Fund.
- The MPCA commissioner should consider devoting more of the Environmental Enforcement Fund's penalty money to the Water Quality Division for training and enforcement-related monitoring activities.

Permit Fee System

This topic relates to Charge #4, "Address load-based fees."

Background

The current permit fee system for the point-source program uses a relatively flat, four-tier cost structure for each class of permittee. The current fee system has some major disadvantages:

- There is no direct correlation between annual fees and either actual facility discharge loading or flow rates, or staff time required to issue each permit.
- The current fee system is inequitable because permittees with similar design flow rates may be charged significantly different fees.
- In general, small cities are burdened with the highest rates of fees (per capita) under the current system in comparison with any of the other systems evaluated.
- The current fee system creates no incentive to improve effluent quality or quantity.

The January 1991 Legislative Auditor's Report on the MPCA recommended that the Water Quality Division consider using a fee system that calculates a fee based on the quantity or "load" of pollutants in a discharge to better reflect the environmental hazards of the discharge. The auditor indicated such a system could more closely match the cost of permitting and enforcement, and might also provide an economic incentive to reduce discharges of harmful substances.

Proposed fee system evaluation criteria

The following criteria, developed by our Load-Based Fee Subcommittee, were used to compare permit fee systems.

1. **Equity.** An equitable fee system should distribute the costs fairly in relation to the level of service and pollutants discharged. A fee system is most equitable if no one permittee or group of permittees bears a disproportionate share of the burden.

2. **Easy to administer and understand.** A fee system should be easy for the state and permittees to administer, with little to no additional paperwork or information required. Permit bills should be easy to calculate and

3. **Predictable and stable.** A fee system should provide a stable fee revenue source. Fee revenues should not vary greatly from year to year. In addition, fees for individual permits should be predictable from year to year so that permittees can budget for decreases or increases in permit fees.

4. **Reward for better-quality discharge.** A load-based fee system should result in a lower fee for a lower level of pollutants discharged.

5. **Environmental impact and potential risk.** A load-based fee system should reflect the environmental impact and potential risk to the environment resulting from the discharge.

Comparison of fee systems

We evaluated three fee systems against the above criteria:

- A *load-based* system, where fees are calculated according to the types and amounts (or load) of pollutants discharged.

- A *flow-based* system, where fees are calculated according to the actual overall volume of a discharge, rather than the pollutants discharged.

- The *current* fee system, where fees are calculated according to four flat fee levels, based on the design size of the facility.

Many computer analyses were generated to compare these three fee models. After evaluating the current permit fee system against model criteria, we conclude that the current system of charging fees is inequitable, particularly to small communities, and should be replaced with a new fee system. In addition, we do not consider the current fee system to be reflective of MPCA's permitting costs.

In terms of the other two system models, we reached consensus that the flow-based system met the above criteria (the flow-based system was not evaluated under the last two criteria points above). The representative of the environmental community, however, believed that the load-based system met the criteria and stated that the many environmental groups she represented had a strong preference for this system.

The following comparisons were made between a flow-based and load-based system:

1. Consensus was reached that a load-based fee system would provide only a weak economic incentive to reduce pollutant loadings because fee rates do not approach the capital and operational costs of reducing discharges below permitted levels.

2. A flow-based fee system is equitable in that it charges the same rate for all users. A load-based fee system creates an inequity in that only those permittees who have a discharge limit for a specific pollutant are charged for it even though other permittees may discharge the same pollutant. On the other hand, a load-based system that calculates fees using BOD (biochemical oxygen demand) as the sole discharge parameter for municipal permittees minimizes this inequity. (A BOD-based system for municipals was supported by the environmental community.)

3. A flow-based system is relatively simple to understand since it uses only one variable, the volume of discharge, as a parameter.

4. A flow-based system advocates no particular social value with regard to effluent discharge.

5. For a load-based system, the fee is based on the inverse of the permit limit for a specific pollutant. For pollutants with very small effluent limits, the unit cost may become disproportionately high relative to the level of effort required of MPCA staff to permit a facility.

Recommendations

As a result of the evaluation above, we recommend the MPCA adopt the following flow-based system (the load-based model we evaluated is included in Appendix F). Two separate flow-based models were developed to accommodate the special needs of municipal and industrial permittees. One of the key differences is that the industrial flow-based model has a limited, load-based factor for mine-pit dischargers (see recommendation #2 below). In general, however, the models calculate fees for permittees in a similar manner with the exceptions recommended below. Further refinement of the flow-based models is continuing and will be finalized during the fee rulemaking in 1996.

As further described in the recommendations for the two models below, here is the basic formula for the flow-based model:

Flow Based Fee = [(Base Fee) + (Total Annual Flow)($/gallon)]*

* Averaged with two previous years of fees (defined as rolling three-year average)

The fee rate ($/gallon) is adjusted annually to collect the correct amount of fees approved for the program.

1. Municipal flow-based model

a. Municipal permittees include all domestic permittees including major facilities (approx. 50 with flow rates greater than one million gallons per day), minor facilities (approx. 600 with flow rates less than 1 mgd), State Disposal System permittees (approx. 30 which land-apply wastewater), and water treatment plants with permitted discharge points (approx. 50 sites), for a total of about 730 permittees.

b. Since many facilities generate such a small volume of flow, a purely flow-based fee system would not recover enough funds to cover the cost of their permit issuance. Therefore, a base fee component was added into the fee model. The fee model calculates total fees as the sum of a base fee plus a flow fee. Base fees were set equal to $2000 for major facilities and $500 for minor facilities; these amounts were estimated to reflect minimal effort for average permit issuance and the relative ratio of permit fees to total program funding.

c. Individual municipal storm-water permits (Minneapolis and St. Paul) are $7,500 per permit per year.

d. General permits are $260 per permit per year.

e. A cap to limit maximum fees was set, equal to $3.00 per person per year. This cap is recommended to protect small communities, which would otherwise have a much higher cost per capita than large cities (large cities average about $0.12 per capita for a flow-based system). At current fee levels, this cap will not significantly impact costs to other permittees.

f. We recommend a rolling three-year average be used as part of the new fee system. This is calculated by averaging the current year's fee with the previous two years of fees. A rolling three-year average will help smooth the transition to a new fee system and reduce

significant fee changes resulting from high flow-rate years. However, it does mask the overall impact of a fee change.

g. The flow-based model should include application fees for approval of sites where sludge is land-applied. Currently no fees are collected for the service required for site approvals. The models used an application fee of $100 per site which was estimated to generate $50,000 from 500 sites. We hope that keeping this fee low will not discourage the beneficial reuse of sludge.

h. For facilities where no actual flow data exists, flow rates were estimated based on 100 gallons per capita or on facilities' permitted design flow rates. Actual data will be included in the model when it becomes available.

2. Industrial flow-based model

a. A limited, load-based factor was used in the industrial model for mine-pit dischargers. The fee rate ($/million gallons) for mine-pit dewatering (when the mine pit is discharging at less than half of its permitted limits for all parameters) and non-contact cooling water was set equal to one-quarter of the rate of other dischargers. This reduction was included to protect dischargers with disproportionately high volumes but low concentrations of pollutants from excessive fees.

b. Total fees to be collected from industrials are set equal to a base fee plus a flow fee component. The base fees are $2,500 for majors, $1000 for minors, and $1,750 for land-application facilities. This was estimated to reflect minimal staff time for average permit issuance and the relative ratio of permit fees to total program funding. In addition, land-application sites were charged at a higher rate to account for staff time on these permits and since they do not have a discharge flow component for their wastewater. This covers primarily food processing and other operations that use managed land treatment for process wastewater. It does not apply to all SDS permits (e.g., infiltration basins for storm water).

c. A rolling three-year average is recommended in the industrial model as well. Again, this is calculated by averaging the current year's fee with the previous two years of fees. A

rolling three-year average will help smooth the transition to a new fee system and reduce significant fee changes resulting from high flow-rate years. However, it does mask the overall impact of a fee change.

d. General permits are $290 per permit per year.

3. Consider increasing permit application fees.

This issue should be considered during the permit fee rulemaking, scheduled to begin in 1996.

Implementation

The MPCA will work with an advisory group to draft a flow-based fee rule in 1996. The Agency budget for the next biennium should include recommendations on fee levels and necessary statutory changes, if any. Fee appropriation levels will then be determined in the 1997 Legislative session.

Enforcement Fees

This topic relates to Charge #5, "Address fees for permittees that have violations requiring enforcement actions."

Background

MPCA currently has the authority to charge fees to help recover the extra administrative costs associated with enforcement actions and other activities required to bring a permittee into compliance. In essence, these enforcement-related fees could be added to the violator's annual permit fee for the previous year's non-compliance. To date, however, the MPCA has not determined how to do this equitably and efficiently.

Enforcement fees differ from enforcement penalties, which are established by state statute to allow the MPCA to assess monetary penalties for environmental violations. In determining the amount of the penalty, MPCA staff consider the willfulness, seriousness, history, and number of violations committed, as well as the economic benefit gained by the violator by not complying. This policy is based on the concept that the violator should not realize an economic benefit for violating Minnesota rules and statutes and that violations may cause environmental harm for which monetary penalties may be appropriate.

Currently, 38 FTEs staff the Division's compliance and enforcement function. Not including management, supervision, support staff and compliance and inspection activities, enforcement activity alone accounts for about 7.5 FTEs, costing approximately $500,000 per year.

Recommendations

We discussed several options for implementing enforcement fees, ranging from scaled surcharges on enforcement actions to permit fee refunds for permittees who are in full compliance.

1. An enforcement fee mechanism is not a workable option for recovering costs.

While we conclude that a major portion of the enforcement staff's time is spent on a small number of permittees, we do not support an enforcement fee concept for the following reasons:

- The current annual penalty amount collected by the Division is approximately reflective of

enforcement program costs.

- The high costs of administering an enforcement fee outweighed its potential benefit.

- Rather than being viewed as a fair way to recover costs, enforcement fees would be perceived as an incentive for the MPCA to enforce more vigorously in order to fund the program. This perception would undoubtedly complicate and delay penalty negotiations between the MPCA and violators.

2. Recover more administrative costs for enforcement activities related to stipulation agreements.

Although an enforcement-fee mechanism was rejected, we recommend that the Water Quality Division recover the reasonable administrative costs of executing stipulation agreements. A stipulation agreement is a negotiated contract between a violator and the MPCA. It contains terms and time schedules for a permittee to return to compliance, monetary penalties for past violations, and potential future penalties should the permittee fail to meet the terms of the agreements. Stipulation agreements require an extraordinary level of staff time, far beyond normal compliance and enforcement activities. These extra administrative costs could be factored into penalty calculations during negotiations.

Implementation

The MPCA should develop specific guidelines and mechanisms for recovering more administrative costs in stipulation agreements. This may require special legislative authorization.

Toxics Information

This topic relates to Charge #6, "How to improve public access to information concerning toxic pollutants in permitted discharges."

Background

During the 1995 Legislative session, a proposal was discussed to post signs at National Pollutant Discharge Elimination System (NPDES) discharge sites to provide the public with greater access to information about the types of pollutants being discharged, including toxic pollutants. The Legislature delegated this issue to the task force for further consideration.

We considered several options for improving access to discharge information and received considerable input from Citizens for a Better Environment (CBE), a non-profit environmental organization that was concerned about this issue. Both the task force and CBE agreed that posting signs at discharge sites was not an effective or workable method for providing discharge information.

However, we recommend another more effective option. The Water Quality Division has an ongoing effort to upgrade the quality of wastewater discharge-site information using global positioning system (GPS) technology. These data will be provided to organizations (e.g., Minnesota Departments of Natural Resources and Transportation, United States Geological Survey) that provide public information in the form of user maps. Private map-making entities could also use the information.

In addition, this information also could be made available to the Emergency Response Commission (ERC) for purposes of emergency response or general information.

Recommendations

1. The MPCA could provide information about discharge points to public and private entities that produce resource maps for the public. We support the Agency's objective to complete the GPS project in a reasonable time frame. The WQD's current plan is to complete the project in four years. If funding does not allow the project to be completed in this time frame, the project's implementation should be re-evaluated.

2. The MPCA should provide permit information including permittee names, addresses of

dischargers, and locations of discharge sites to the ERC for use in its database system. The name and phone number of an MPCA Water Quality Division contact person would also be included for additional information needs.

Implementation

- The MPCA will provide discharge locational information to public and private entities that produce resource maps and to the ERC when the GPS project is completed.

- All public inquiries on wastewater discharges would be directed to the MPCA. For each coded site, the MPCA could provide permit numbers, permit limits (discharge limits for each permitted parameter) and monitoring requirements for each limited discharge element. This information will change if a permit is amended and/or renewed (currently every five years) and will be available in a tabular form (latitude and longitude) and not a specific geographic information system format. With MPCA's DELTA system, the public may eventually be able to access this information directly via an expanded bulletin board system, but for now, the MPCA can produce reports for each permitted discharge point and respond to inquiries accordingly.

- Requests for extensive reports on discharge information would be charged a fee in order to recover staffing and photocopying expenses (according to MPCA's current expense policy). A dedicated fund to return these receipts to the program would need to be established through legislation.

Time Reporting

This topic relates to Charge #7, "Address a time reporting system to improve tracking of resource usage."

Background

To respond to this charge, we reviewed a survey of other divisions within the MPCA as well as other agencies on how different programs tracked staff time. The survey indicated that most programs track time according to job functions, such as permitting and compliance/enforcement, rather than by time spent on individual permits. The only exceptions were those programs that directly bill to a client, which the Water Quality Division does not do. As a result of this evaluation, we conclude that the most efficient and effective time reporting system would be driven by job function.

We considered a time tracking system which tracked the primary job functions across all the programs in the Division. (See Appendix G for a sample time reporting form detailing this functional approach.) This system will be particularly helpful in tracking the time spent on major and minor dischargers for both municipal and industrial permittees. Time spent on major legislative activities and public inquiries will also be tracked. Because this system can be used and its effectiveness evaluated through SEMA4 (the state's new computerized personnel payroll system), we recommend its use to meet the goals of Charge #7.

Recommendation

The Water Quality Division should implement a new, Division-wide time reporting system based on job function. This will help improve the management of the Division and its accountability to MPCA's stakeholders by better tracking staff resources and priorities.

Implementation

The new time reporting system should be implemented by the Division in 1996.

Appendix A

Arthur Andersen Final Report

A Report to the Blue Ribbon Task Force on Funding Minnesota's Water Quality Programs

December 1, 1995

ARTHUR ANDERSEN

ARTHUR ANDERSEN & CO, SC

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ARTHUR ANDERSEN

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EXHIBITS

Section 1.0

Executive Summary

Section 1.0 Executive Summary

Introduction

The Minnesota Pollution Control Agency administers programs to conserve, preserve, improve and protect Minnesota's natural resources and environment. MPCA's Water Quality Point Source Program is one such key program. The Point Source Program governs a range of activities related to the management and oversight of direct dischargers into Minnesota waterways, rivers, lakes, and streams.

MPCA has experienced a funding shortfall for Point Source Program activities in the past two years. With declining State and Federal funding contributions, the funding shortfall has escalated into a funding crisis. The Governor of Minnesota, the Honorable Arne Carlson, appointed a task force to study the crisis with a directive to report findings and recommendations to the State Legislature by the end of November 1995. As part of this charter, the Blue Ribbon Task Force on Funding Minnesota's Water Quality Programs authorized the MPCA to contract with Arthur Andersen LLP (AA) to perform a scope of work which included an assessment of the adequacy of MPCA's current Point Source Program. This Report offers the details and findings associated with the scope of work.

Approach

The main inputs to the point source program assessment performed by Arthur Andersen for MPCA included information gathered through a benchmarking survey, individual and group interviews with a wide range of MPCA stakeholders, focus group sessions held with stakeholders, and an analysis performed at the request of the Blue Ribbon Task Force to define the resource and funding requirements associated with "top", "middle", and "bottom" service level permitting programs.

While assessing the adequacy of MPCA's point source program, Arthur Andersen was also tasked with identifying potential opportunities for improving the Point Source Program. In order to perform the assessment and identify opportunities for improvement, AA first performed a high level process review of MPCA's Point Source Program activities in four major activity areas: Permitting, Compliance and Enforcement, Water Quality Standards and Monitoring, and Training and Assistance. Specifically, key tasks and subtasks of the process review included:

- An extensive and detailed benchmarking survey which was prepared and sent to eighteen state participants, including Minnesota. The survey was designed to collect information about the funding levels and services provided by each state. The survey did not collect information on the effectiveness of the different state programs in protecting water quality nor did it consider the extent of the resources

(number of river miles, lakes, etc.) that the state's are charged to protect. The states chosen included all the states comprising U.S. EPA Region 5 and other states which were chosen because of some demographic, geographic, environmental, or program attribute(s) which were similar to those existing in Minnesota. Sixteen of the eighteen states responded to the survey. A full listing of the state participants as well as all survey questions and responses is provided in Exhibit B to this report. Note that three of the participating states requested anonymity. Those states are referred to as States X, Y, and Z throughout this report.

- Interviews held with approximately twenty MPCA staff members and managers assigned various point source program responsibilities.

- Three half-day focus group sessions held at three locations across the state and attended by approximately twenty participants representing the range of MPCA stakeholders, including representatives from industry, municipalities, and environmental interest groups. The Focus Group Summaries are provided as Exhibit C.

- A compilation of "best business practices" implemented by other leading organizations.

Findings

During its scope of work, Arthur Andersen was asked to perform two primary tasks: 1.) assess the adequacy of MPCA's current Point Source Program, and 2.) assess the potential impact and implications of possible process changes which could be made to improve program performance. To assess the adequacy of the program, AA benchmarked MPCA's performance against other states to establish the foundation of data needed to objectively support the assessment. Using data gained through the benchmarking survey, AA designed and developed a series of "Funding vs. Service Level Performance Indices" to "map" individual states' performance, including Minnesota's, relative to each other. These analyses serve as the backdrop against which the Minnesota ***program evaluation*** was performed.

Following the program evaluation, AA performed a ***process change analysis***. The goal of this analysis was to assess the impact and implications of change if Minnesota could target its performance to achieve the levels of performance achieved by states mapping out in the top quartile, the middle, and the bottom quartile for each of the four service level performance indices.

A summary of results for both the program evaluation and the process change analysis follows.

Program Evaluation

Using data and information from the benchmarking survey, the Arthur Andersen program evaluation is based on a comparative analysis of the different state programs in

terms of funding and service level performance. It is important to note that the analysis did not consider the effectiveness of the different state programs but rather the level of services provided. In addition, AA performed an analysis of the funding and resource requirements which would be needed by Minnesota if it were to perform at the top, middle, and bottom service levels relative to the other states in the benchmarking survey.

The funding/performance indices provided in Section 2 are designed to assess the level of service provided in each of MPCA's four key activity areas relative to the funds expended to achieve that level of service. Ultimately, the matrices provide a graphic representation of Minnesota's performance relative to the states which participated in the benchmarking survey.

The position of each state within each matrix represents the convergence of that state's annual program funding and its service level performance relative to each of the other states in that functional area. Those states near the lower right hand corner offer the best price (funding)/performance ratio. It should be noted that the funding levels have not been normalized to reflect differences in the size of the various state programs relative to demographics or any other factors.

A summary of Minnesota's performance in each of the four functional areas in terms of service level and funding is provided below. Details to support these conclusions can be found in Section 2.

- Permitting: Minnesota's funding charts out at the mean and its service level maps out slightly below the mean for all states,
- Compliance/Enforcement: Minnesota's funding maps out slightly above the mean and its service level maps out below the mean for all states,
- Water Quality Standards: Minnesota's funding charts out slightly below the mean and its service level maps out slightly above the mean for all states,
- Training/Assistance: Both Minnesota's funding and service levels map out above the mean for all states.

Pursuant to a request made by the Blue Ribbon Task Force, Arthur Andersen also performed an analysis of the resource and funding requirements which would be needed for MPCA to raise or lower its level of performance to match that represented by states performing at the top, middle, and bottom service levels for each of the four main functional areas. While details are provided in Section 2 on Page 19, in summary, MPCA's resource and funding requirements to achieve those levels of performance are as follows:

		Performance Levels		
	Current Program	Top Level	Middle Level	Bottom Level
FTEs	102 FTEs	160 FTEs	118 FTEs	94 FTEs
Funding	$6.9 million	$10.8 million	$7.9 million	$6.3 million

Process Change Analysis

At the request of the Blue Ribbon Task Force, AA performed a "Process Change Analysis" to analyze and assess the opportunities for improvement in terms of both service and performance as well as quantifying their potential impact on current resources and funding. The "permitting" and "compliance and enforcement" functional areas were selected because they are the two largest in terms of resources and funding needs (together they represent approximately 75% of current program resource and funding requirements), and because these areas presented the greatest opportunity for improving service levels relative to the other states. The analysis did not include the "water quality standards" or "training and assistance" areas.

The purpose of the analysis is to look at potential savings and/or efficiencies which might be gained through successful implementation of process or regulatory changes. It should be noted that this analysis is based only on results gained from the state benchmarking survey. Significant additional analysis would need to be completed before any determinations could be made as to the extent of savings that Minnesota could achieve as a result of process or regulatory changes. Hence, in Arthur Andersen LLP's professional opinion, it would be inappropriate to draw any conclusions or make any recommendations related to staffing levels or funding options based solely on the process change analysis.

Top Level Program With No Process Changes

In its simplest terms, this analysis shows that if Minnesota desired to achieve the permitting and compliance/enforcement performance levels of other high service level states without instituting any changes in their current process, (i.e. they continue to issue permits at a rate of 6.7 permits per FTE and continue to perform inspections at the rate of 11.5 facilities per FTE), they would need to increase staffing from 73 FTEs to approximately 128 FTEs. This would translate into the need for additional funding of approximately $3.7 million per year in these two functional areas.

Top Level Program With Process Changes

Without necessary additional information from other states, in its simplest terms, this analysis shows that if Minnesota desired to achieve the permitting and compliance/enforcement performance levels of the high service level states and if MPCA was able to garnish the full effectiveness, efficiencies, and cost savings associated with the full range of process change opportunities, it could potentially perform at those higher levels of performance with fewer FTEs than are currently involved. However, because the analysis is based only on preliminary information gained through the surveys, more information would be needed to determine specifics associated with potential efficiencies. As an example, survey data indicates that the state of Washington issues a higher number of permits per FTE than Minnesota. Data also shows that Washington did not issue any major industrial permits for the year surveyed, while Minnesota issued 8 major industrial permits. This data is just one of the factors that is impacting the comparison of program efficiency ratios.

It should be noted that in order to assess the potential benefits that could result from such process changes, a comprehensive analysis and design of the permitting and compliance and enforcement processes should be performed. Such an analysis would include a detailed review of potential changes, a conceptual design of the revised processes as well as an estimate of the cost and effort necessary to implement the changes. Although many possible opportunities for process improvements are identified in Sections 3 and 4 of this report, no attempt to quantify the potential impact or cost of these changes has been made.

Section 2.0

Program Evaluation

Section 2.0 Program Evaluation

Background

The main inputs to the point source program assessment performed by Arthur Andersen for MPCA included information gathered through a benchmarking survey, individual and group interviews with a wide range of MPCA stakeholders, focus groups with stakeholders, and an analysis performed at the request of the Blue Ribbon Task Force to define the resource and funding requirements associated with "top", "middle", and "bottom" service level programs. The charts, tables, and graphs provided in this and each of the following sections offer findings and details related to each of these major tasks and related subtasks. Additional details, including the full data compilation from the benchmarking survey, are provided in the "Exhibits" section of this report.

Using data and information from the inputs detailed above, Arthur Andersen's major tasks included the performance of a comparative analysis of the different state programs in terms of funding and service level performance and, as was mentioned earlier, an analysis of funding and resource requirements needed to perform at the top, middle, and bottom service levels. Given the significance of each these major tasks, each is discussed in more detail below.

Service Level vs. Funding Indices/Matrices

The funding/performance indices provided in this section are designed to assess the level of service provided in each of MPCA's four key activity areas relative to the funds expended to achieve that level of service. Ultimately, these matrices/indices enable us to graphically represent Minnesota's performance relative to the states which participated in the benchmarking survey.

The position of each state within each matrix represents the convergence of that state's annual program funding and its service level performance relative to each of the other states in that functional area. Those states nearer the lower right hand corner offer the best price (funding)/performance ratio. It should be noted that the funding levels have not been normalized to reflect differences in the size of various state programs relative to demographics or any other factors.

AA's service level rating is built from weighted scores in several different service level categories with criteria weighted according to importance and relevancy to each of the functional areas. The specific service level criteria for each of the four functional areas is provided on **Page 5,** immediately preceding the matrices.

To calculate the service level ranking for each state, Arthur Andersen first looked at the maximum and minimum ratings/data points in each category to arrive at a mean score.

The next step was to divide each state rating by the mean for all scores in that functional area. That rating was then weighted along with all the others to reach a total of 100 percent for the functional activity area. The weighted scores were then summed according to their weighted measures and divided by the total. That number was then normalized to achieve a service level ranking and position on the matrix.

The four functional activity areas studied and analyzed include:

1. Permitting
2. Compliance and Enforcement
3. Water Quality Standards and Monitoring, and
4. Training and Assistance

An individual matrix is provided for each of these four functional areas. Chart data to support each matrix is provided on the page following each specific matrix. In addition to the above mentioned matrices, a matrix is also provided to graphically depict "Program Funding" versus "% Funding From Fees" generated through the issuance of permits.

Analysis of Top, Middle, and Bottom Service Level Programs

Pursuant to a request made by the Blue Ribbon Task Force, Arthur Andersen performed an analysis of the resource and funding requirements which would be needed for MPCA to raise or lower its level of performance to match that represented by states performing at the top, middle, and bottom service levels for each of the four main functional areas (refer to matrices provided on pp. 8, 10, 12, and 14.)

For ease of discussion, the best way to describe this task might be to use an example. Looking at Page 16, we can see that MPCA's "permitting backlog" is approximately 34% (this percentage as well as all other data used in the performance of this analysis is taken directly from data that was provided by each state which completed the benchmarking survey.) States in the top quartile had an average backlog of 4.5%; states in the middle averaged 28%; and states in the bottom quartile averaged 58%. By comparison, Minnesota's backlog performance placed it between the middle and bottom state performers relative to the other states using the service level criteria for this one activity. If backlog was the only factor used to perform the analysis in the permitting area (backlog was one of three factors used, "weeks to issue" and "percentage of facilities receiving pre-permit assistance" were the others), the objective would be to determine the funding and resource requirements need by MPCA to raise or lower its performance to the backlog percentages realized by the top, middle, and bottom averages in this example: 4.5%, 28%, and 58%, respectively.

To assess the resource and funding requirements needed for MPCA to raise or lower its performance in the "permitting" and other functional areas, the goal (defined by the Blue Ribbon Task Force) was to determine what it would take, given MPCA's current performance levels and capacity, to raise or lower (depending on where Minnesota charts out in each area) its level of performance, *with no process or regulatory driven*

changes, in each of the four functional areas to that representative of the state performing at "bottom of the top" quartile; the middle or mean; and the "top of the bottom quartile." **Each of the analyses performed on Pages 19-23 is based on these assumptions and definitions.**

Total Program

Page 19 provides summary level program information reflecting the analyses performed for each functional area on Pages 20 through 23. It is important to note that the information presented for funding and FTEs are Minnesota numbers, not numbers from the states charting out at the top, middle, and bottom service levels. In other words, and using "permitting" as an example, MPCA currently has 35 FTEs assigned to permitting activities. For it to achieve the performance levels in "weeks to issue" and "permit backlog" realized by the state performing at the bottom of the top quartile of benchmarked states (Washington in this case), Minnesota would need 62.5 FTEs. Funding numbers in all cases are simply a function of the number of FTEs multiplied times MPCA's fully loaded annual rate of $67,317 per FTE. Loaded rates includes salary and benefits as well as indirect agency charges.

As can be seen in the summary level table, Minnesota's performance for each of the four functional areas in terms of FTEs and funding are as follows:

- Permitting: Minnesota's funding charts out slightly higher and its service level maps out slightly below the mean for all states,
- Compliance/Enforcement: Minnesota's funding maps out slightly above the mean and its service level maps out below the mean for all states,
- Water Quality Standards: Minnesota's funding charts out slightly above the mean and its service level maps out at the mean for all states,
- Training/Assistance: Both Minnesota's funding and service levels map out above the mean for all states.

Pages 20 through 23 provide the details for the analyses performed in each of the four functional areas. Each is described in more detail in the following sections.

Permitting

Analysis: Minnesota's current service level in the permitting area is below the average of other states: permit backlog is 34% versus 28% (mean) and weeks to issue is 47 weeks vs. 36 weeks. One factor driving this is Minnesota's current permit issuance rate of 6.7 permits per FTE. Many other states have higher rates. In order to reach an average service level at its current rate, Minnesota would need 11 additional FTEs.

To determine how many FTEs it would take for MPCA to perform at the levels representative of the top, middle, and bottom states for permitting, Arthur Andersen focused on two key criteria: "weeks to issue permits" and "permitting backlog."

As can be seen in the top portion of the table, the state performing at the bottom of the top quartile for permitting is Washington state. Washington currently takes

approximately 24 weeks to issue a permit -- roughly half the amount of time it takes Minnesota to accomplish the same. For Minnesota to improve its level of performance and issue its permits in half the amount of time, with no process improvements, it would take approximately twice as many FTEs (69) to achieve that level of performance.

Permitting backlog for the state at the bottom of the top quartile is currently approximately 20% compared to Minnesota at approximately 34%. For Minnesota to improve its performance by reducing backlog to 20%, it would need to issue 273 permits annually (assuming no new permits are added to the pool of existing permits.) While the difference between what MPCA currently has in its backlog (467 permits) and what it would need to issue to achieve 20% (273) is 194 permits, because it would require a significant influx of resources to improve its performance that dramatically in one year and because MPCA funding is cycled on a biennial basis, Arthur Andersen assumed that that difference would be eliminated over two years. In other words, MPCA, in addition to issuing 273 permits would also have to issue 97 additional permits each year (half of 194) to achieve the level of performance currently realized by Washington. Hence, in order to issue a total of 370 permits at a rate of 6.7 permits per FTE (MPCA's current rate) it would require approximately 55 FTEs.

In conclusion, for Minnesota to match its performance to that of the top state, it would need 69 FTEs to improve its "weeks to issue" performance and 55 FTEs to do the same for "permitting backlog." Consistent with the weighting criteria used for the funding vs. service level indices, these factors were then weighted to arrive at 62.5 FTEs needed overall for the entire permitting function.

The same logic and calculations can be applied to analyze the middle and bottom states as well.

<u>Compliance and Enforcement</u>

Analysis: Minnesota's current service level in the Compliance and Enforcement area is below the average of other states for this area; Minnesota's "% facilities inspected" is 32% versus 39% which represents the average of all states (except Maryland which was excluded because its percentage was significantly higher than any other state). At its current rate of approximately 11.5 inspections performed per FTE, Minnesota would need approximately 8 additional FTEs to improve its level of service to 39% of facilities inspected.

Similar logic is used to assess program requirements in the compliance and enforcement area. The main differences for this area are the states which chart out at top, middle, and bottom for this functional area and the service level criteria used as a yardstick for performance -- in this case, number of facilities inspected. Using the top state as an example once again, Oregon inspected 55% of its facilities in 1994 versus Minnesota at 32% of its facilities. For Minnesota to raise its level of service to 55%, it would need to inspect 753 facilities versus the 437 it inspected in 1994. At its current rate of approximately 11.5 inspections per FTE it would require 65.5 FTEs versus the current staffing pool of 38.

The same logic and calculations can be applied to analyze the middle and bottom states as well.

Water Quality Standards

Analysis: Minnesota's current service level in the Water Quality Standards and Monitoring area is relatively consistent with the average for all states.

The logic associated with the analysis for Water Quality Standards is somewhat different than that which was applied to the permitting and compliance and enforcement analyses. This is due primarily to the type of service level criteria and associated data which define activities in this area. Instead, this analysis is performed using Minnesota's current program staffing levels as the starting or reference point and adding and/or subtracting FTEs from that base depending on the performance levels and associated FTEs for each the top, middle, and bottom states. As an example, State Y, the state at the bottom of the top quartile in this area, performs new effluent determinations on 17% of its permits (as a % total of new permits issued) versus Minnesota' 77% with 4.4 FTEs. Assuming all else stays the same, If Minnesota were to only perform determinations on 17% of its permits it would require 3.4 fewer FTEs, thus, as can be seen in the "Top" column, 3.4 FTEs are subtracted from the base of 18.9. The same logic and calculations are applied for each of the following: "% river miles assessed" and "% lake acres assessed"; and as a result, the top level program would require approximately 22.3 Minnesota FTEs versus Minnesota's current staffing level of 18.9.

The same logic and calculations can be applied to analyze bottom state as well. Note that Minnesota represents the middle state in this functional area.

Training and Assistance

Analysis: Minnesota is currently the high level service provider in this area. MPCA currently has more FTEs in this area than all but four of the benchmarked states. In addition, many other states outsource their training programs and many others recover a higher percentage of costs. Minnesota currently only recovers a portion of their costs.

Like the Water Quality Standards area, the logic associated with the analysis for Training and Assistance is different than that which was applied to the permitting and compliance and enforcement analyses. This, too, is due primarily to the type of service level criteria and associated data which define activities in this area. As such, this analysis is also performed using Minnesota's current program staffing levels as the starting or base reference level and adding and/or subtracting FTEs from that base depending on the performance levels and associated FTEs for each the top, middle, and bottom states.

As an example, the mean or middle state will be used (Minnesota charts out at the top of the bottom quartile in the training and assistance area.) Using Minnesota's staffing level here of 10 FTEs as the base or reference level, the mean state would achieve a ratio of 0.57 for "number of people trained per number of permitted facilities" versus

Minnesota's ratio of 1.25 achieved with 10 FTEs. For Minnesota to reduce its ratio to 0.57, it could do so with 5.4 fewer FTEs, thus 5.4 is subtracted from the starting point of 10. For "number of classes offered," the mean state offers 19 classes versus Minnesota's 16 classes with 10 FTEs. If Minnesota were to increase the number of classes offered to 19, it would require 1.9 additional FTEs, thus this number is added in the column. In total, and weighting each of the two service level criteria equally, the training and assistance area would require 6.4 Minnesota FTEs if Minnesota were to lower its performance here to that represented by the mean state.

The same logic and calculations can be applied to analyze bottom state as well. Note that Minnesota represents the top state in this area.

Service Level Criteria

Permitting

- Permit backlog percentage
- Average weeks to issue permit
- Percentage of facilities receiving pre-permit assistance on new construction

Compliance & Enforcement

- Percentage of facilities inspected
- Frequency of inspections (minors)

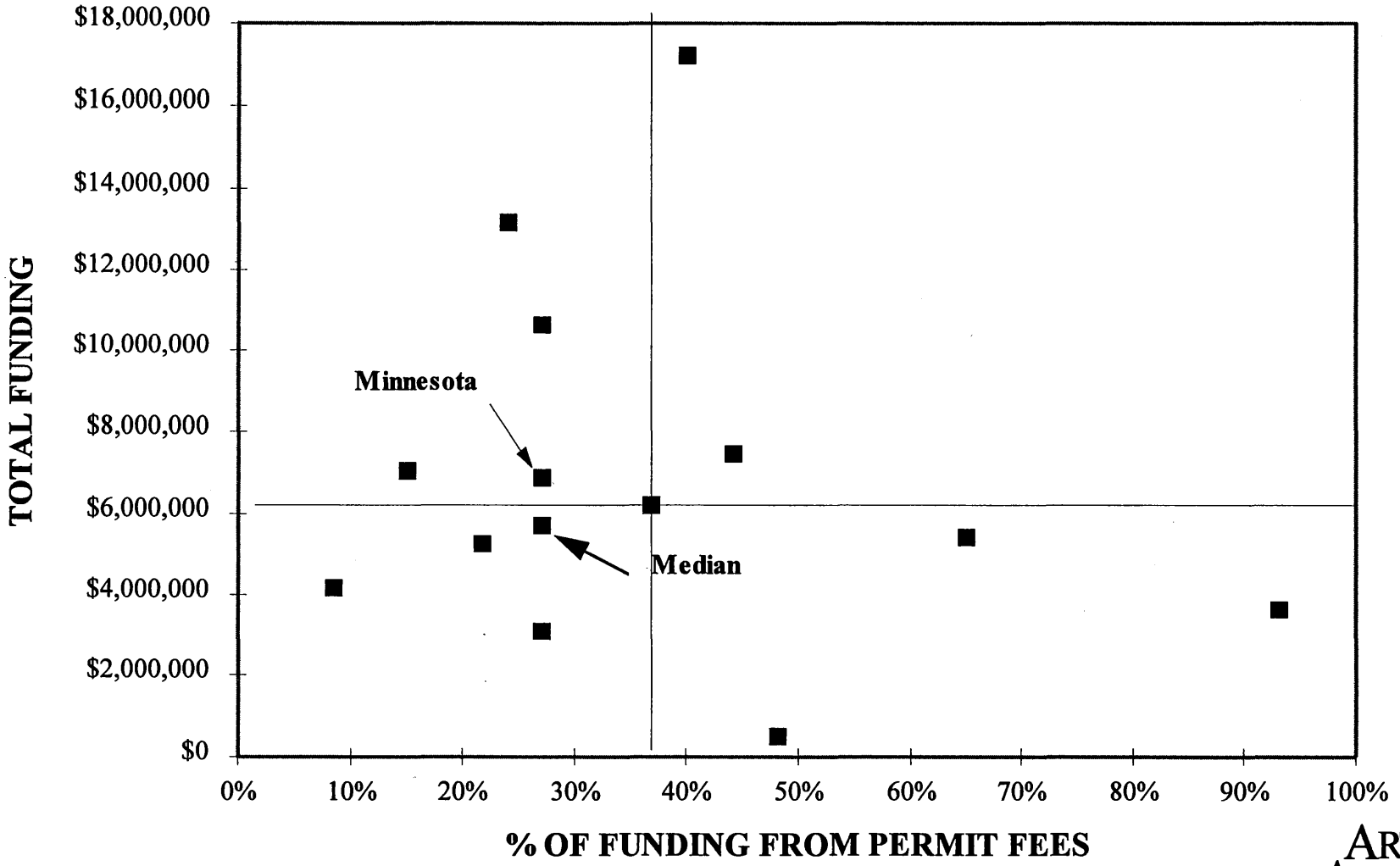
Water Quality Standards

- Number of sites monitored for ambient water quality/Number of river miles
- Percentage of river miles assessed
- Percentage of lake acreage assessed
- New effluent limits reviewed as a percentage of permits issued

Training & Assistance

- Number of people receiving training
- Number of classes offered
- Provide On-the-Job Training (Y / N)
- Percentage of WWT operators certified

FUNDING



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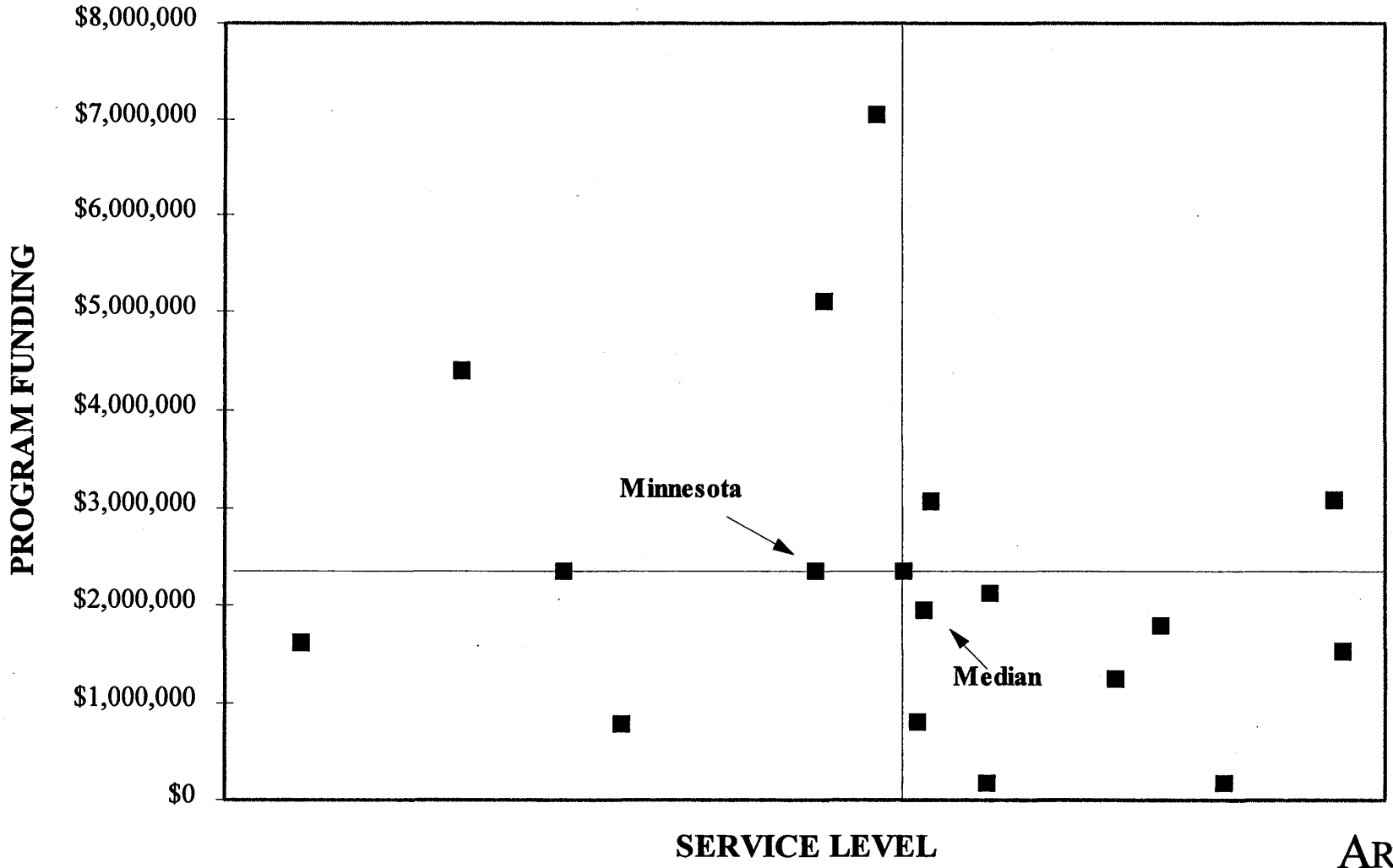
Funding Chart Data		
Participating State	% of Funding From Permit Fees	Total Funding
Colorado	27%	$ 3,122,965
Connecticut	22%	$ 5,285,238
Indiana	44%	$ 7,499,629
Kentucky		$ 6,037,536
Maryland	8%	$ 4,221,558
Massachusetts		$ 843,600
Michigan	15%	$ 7,100,211
Minnesota	27%	$ 6,934,000
Montana	48%	$ 547,619
North Carolina	27%	$ 10,654,118
Ohio	24%	$ 13,216,837
Oregon	65%	$ 5,441,176
Washington	93%	$ 3,683,688
State X	40%	$ 17,248,189
State Y		$ 6,727,105
State Z		$ 1,616,000
Mean	37%	$ 6,261,217
Median	27%	$ 5,739,356

PERMITTING



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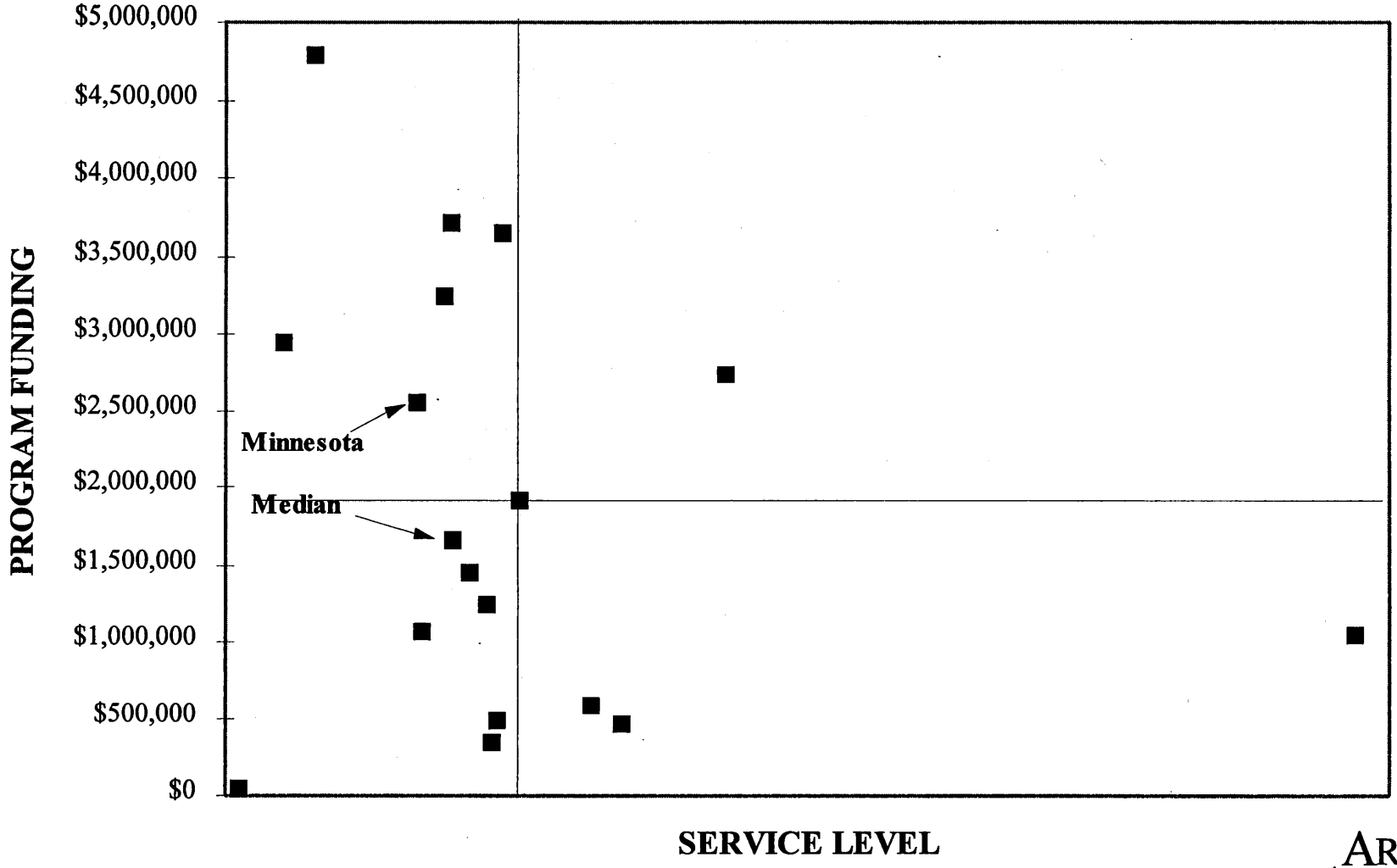
Permitting Chart Data			
Participating State	Permit Backlog %	Average Weeks to Issue Permit	Pre-Permit Assistance % on New Facilities
Colorado	18%	29	5%
Connecticut	24%	26	20%
Indiana	56%	72	75%
Kentucky	3%	26	90%
Maryland	9%	26	30%
Massachusetts	34%	26	75%
Michigan	55%	32	20%
Minnesota	34%	47	90%
Montana	8%	22	50%
North Carolina	2%	24	75%
Ohio	51%	27	80%
Oregon	6%	113	100%
Washington	20%	24	80%
State X	30%	45	90%
State Y	26%	22	30%
State Z	70%	11	20%
Mean	28%	36	58%
Median	25%	26	75%

COMPLIANCE AND ENFORCEMENT



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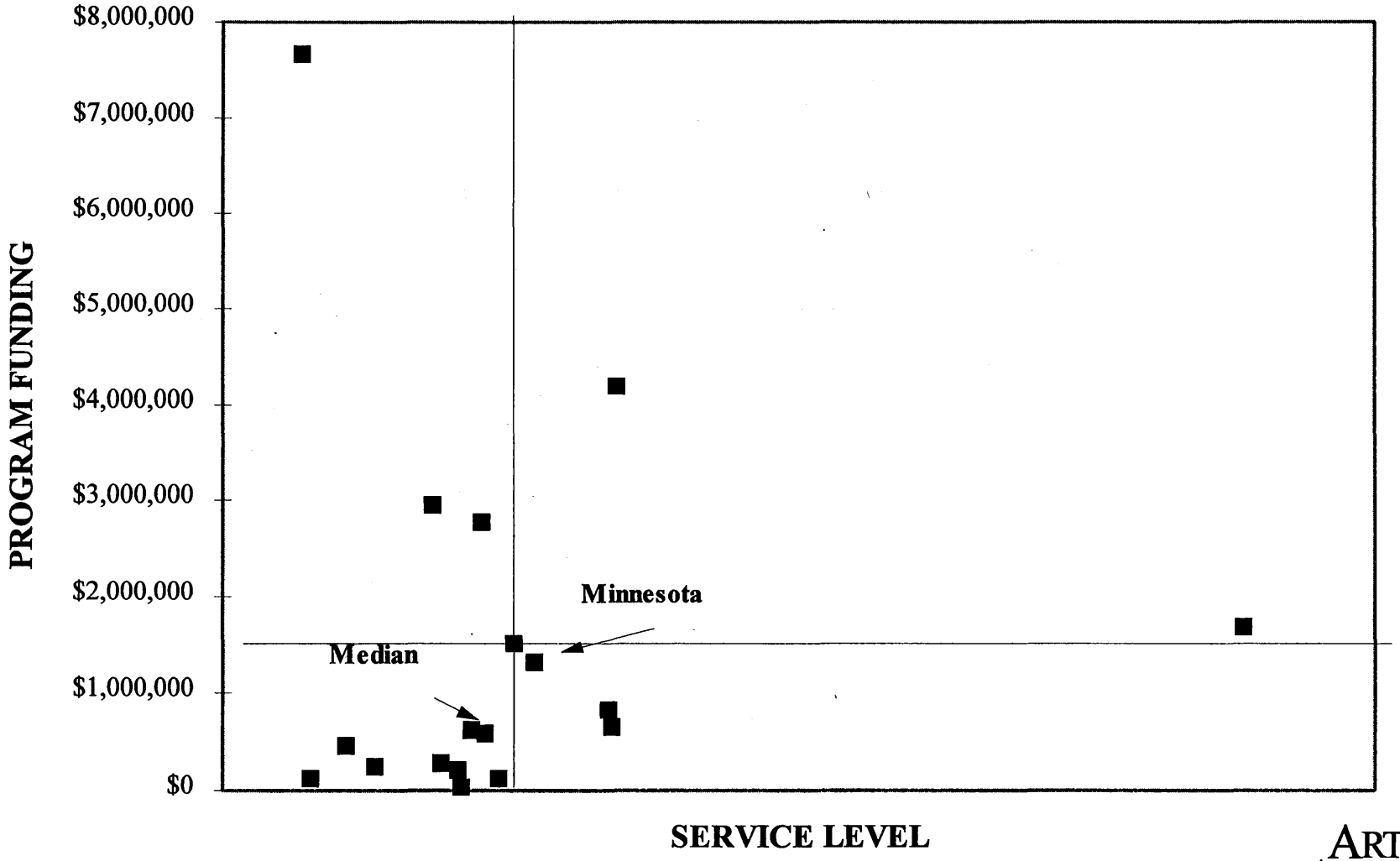
Compliance Chart Data		
Participating State	% of Facilities Inspected	Frequency of Minor Inspections
Colorado	53%	Other
Connecticut	51%	Other
Indiana	78%	Bi-annually
Kentucky	32%	Annually
Maryland	181%	Semi-Annually
Massachusetts	52%	Other
Michigan	44%	Other
Minnesota	32%	Tri-annually
Montana	8%	Other
North Carolina	16%	Other
Ohio	21%	Other
Oregon	55%	Bi-annually
Washington	45%	Other
State X	26%	Bi-annually
State Y	24%	Annually
State Z	68%	Tri-annually
Mean	49%	
Median	45%	

WATER QUALITY STANDARDS



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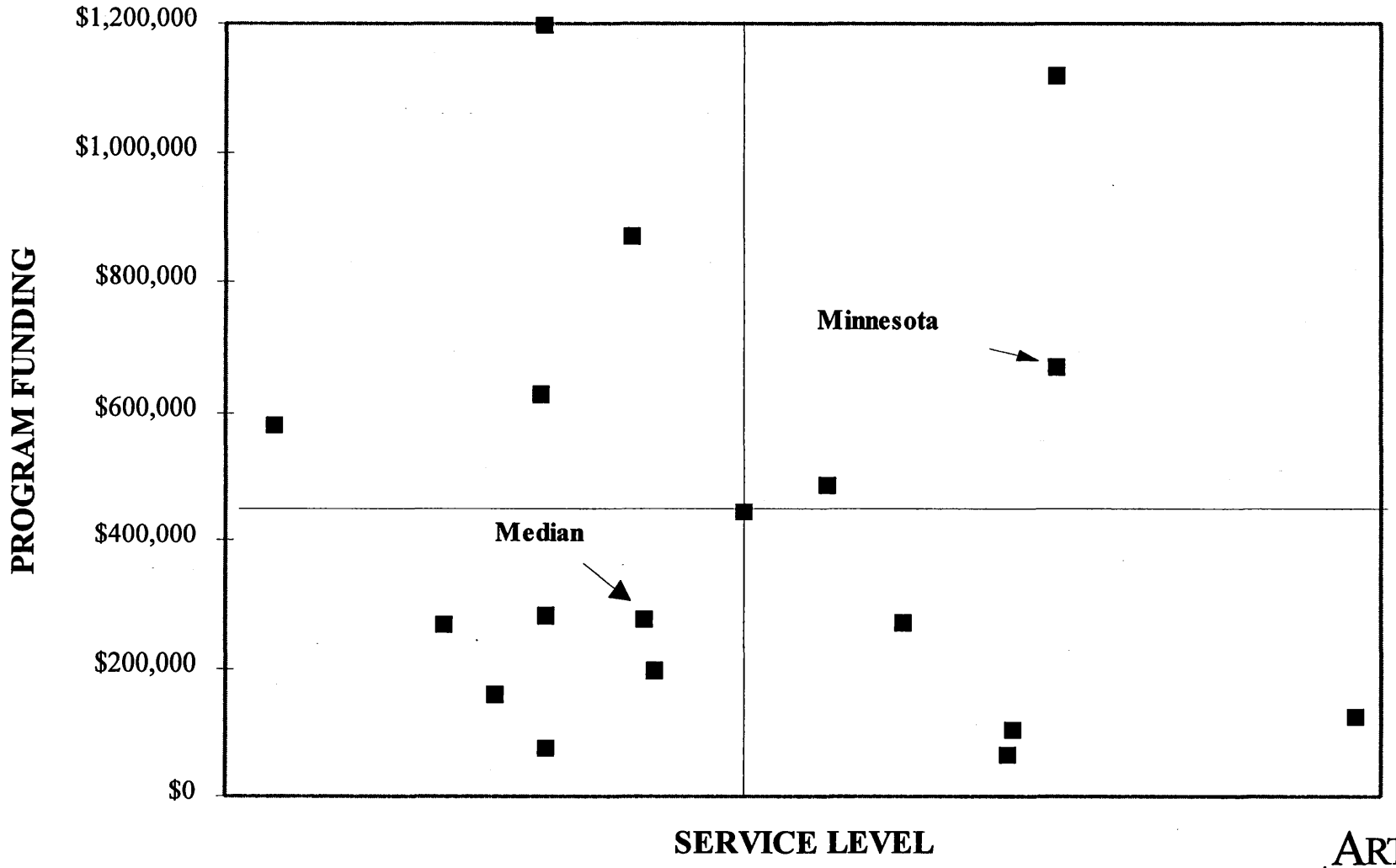
Water Quality Standard Chart Data				
Participating State	# Sites Monitored for Ambient Water Quality/ 1000 River Miles	% of River Miles Assessed	% of Lake Acreage Assessed	Effluent Limits as % of Permits Issued
Colorado	2.41	86%	100%	28%
Connecticut	4.76	11%	52%	1%
Indiana	10.00	19%	71%	26%
Kentucky	6.77	11%	0%	34%
Maryland	79.41	100%	27%	100%
Massachusetts	6.21	18%	14%	57%
Michigan	3.85	40%	51%	37%
Minnesota	0.99	5%	88%	77%
Montana	0.35	36%	100%	15%
North Carolina	9.40	93%	100%	6%
Ohio	4.44	27%	66%	17%
Oregon	7.44	32%	82%	
Washington	6.03	14%	13%	
State X	0.00	20%	22%	4%
State Y	26.63	40%	67%	17%
State Z	0.63	10%	87%	59%
Mean	10.58	35%	59%	34%
Median	5.39	24%	67%	27%

TRAINING AND ASSISTANCE



Training and Assistance Chart Data				
Participating State	# of People Receiving Training/ Total Permit Facilities	# of Course Administered	On-the-Job Training	% of Certified Operators
Colorado	0.46	32	NO	80%
Connecticut		0	YES	98%
Indiana			YES	100%
Kentucky	0.03	5		
Maryland	0.95	53	YES	
Massachusetts	1.63	36	YES	100%
Michigan	0.78	40	YES	80%
Minnesota	1.25	16	YES	92%
Montana	0.84	25	YES	100%
North Carolina	0.12	45	YES	90%
Ohio		0	NO	85%
Oregon			YES	80%
Washington	0.00	0	YES	100%
State X		0	YES	99%
State Y	0.07	14	YES	91%
State Z	0.15	5	YES	99%
Mean	0.57	19		92%
Median	0.46	15		95%

Program Adequacy Approach

DATA SUMMARY						
		Permitting			*Compliance & Enforcement*	
		Permit Backlog %	**Average Weeks to Issue Permit**	**Pre-Permit Assistance % on New Facilities**	**% of Facilities Inspected**	**Frequency of Minor Inspections**
State Benchmarking Results	TOP 25%	4.51%	20	93%	96%	Annually
	MEAN	28%	36	58%	49%	Tri-Annually
	BOTTOM 25%	58%	69	16%	17%	When Needed
	MINN	34%	47	90%	32%	Tri-Annually

Program Adequacy Approach

		# Sites Monitored for Ambient Water Quality/ 1000 River Miles	% of River Miles Assessed	% of Lake Acreage Assessed	Effluent Limits as % of Permits Issued
State Benchmarking Results	TOP 25%	31.36	80%	97%	73%
	MEAN	10.58	35%	59%	34%
	BOTTOM 25%	0.49	9%	12%	7%
	MINN	0.99	5%	88%	77%

Program Adequacy Approach

DATA SUMMARY					
		Training and Assistance			
		# of People Receiving Training/ Total Permit Facilities	**# Courses Administered**	**On-the-Job Training**	**% of Certified Operators**
State Benchmarking Results	TOP 25%	1.28	43.5	YES	100%
	MEAN	0.57	19.4	YES	92%
	BOTTOM 25%	0.03	0.0	NO	81%
	MINN	1.25	16.0	YES	92%

Program Adequacy Funding Analysis

	FTEs	Minnesota	FTEs	Top	FTEs	Middle	FTEs	Bottom
Permitting	35.0	$2,356,095	62.5	$4,210,588	46.3	$3,117,822	37.1	$2,496,137
C&E	38.0	$2,558,046	65.5	$4,408,027	46.3	$3,118,751	38.0	$2,558,046
WQS	18.9	$1,272,291	22.3	$1,499,858	18.9	$1,272,291	16.8	$1,133,811
T&A	10.0	$673,170	10.0	$673,170	6.4	$433,185	2	$134,634
Total Program	101.9	$6,859,602	160.3	$10,791,643	118.0	$7,942,050	93.9	$6,322,628

Permitting

Weeks to Issue	State	Avg. Wks To Issue	Minn. Permits Issued/Yr	Minn. FTEs Total
Top	Washington	24	121	69
Middle	Mean	36	181	46
Bottom	Michigan	32	161	51
Minnesota - Current	Minnesota	47	236	35

Permit Backlog	State	Permit Backlog %	Minn. Backlog Permits #	Add'tl Permits	Minn. Permits Needed To Issue	Minn. FTEs Total
Top	Washington	20%	273	97	370	55
Middle	Mean	28%	382	42	315	47
Bottom	Michigan	55%	751	-142	131	20
Minnesota - Current	Minnesota	34%	467	0	0	35

Minnesota Funding	FTEs	Total Funding	Add'tl Funding
Top	62.5	$4,210,588	$1,854,493
Middle	46.3	$3,117,822	$761,727
Bottom	37.1	$2,496,137	$140,042
Minnesota - Current	35.0	$2,356,095	$0

Compliance and Enforcement

C&E Activities	State	1994 Inspections	Total Facilities	% of Facilities Inspected	Minn. # of Facilities	Minn. FTEs Needed
Top	Oregon	2007	3638	55%	753	65.5
Middle	Mean	1121	2872	39%	533	46.3
Bottom	Minnesota	437	1365	32%	437	38.0

Minn. Funding	State	FTEs	Total Funding	Add'tl Funding
Top		65.5	$4,408,027	$1,849,981
Middle		46.3	$3,118,751	$560,705
Bottom		38.0	$2,558,046	$0

Water Quality Standards

	State	New Eff. Limits as %Total of New Permits Issued	Req'd FTEs	Minn. FTEs	Top 18.9	Bottom 18.9
Top	State Y	0.17	1.0		-3.4	
Middle	Minnesota	0.77	4.4			
Bottom	Kentucky	0.34	1.9			-2.5
		% of River Miles				
	State	**Assessed**				
Top	State Y	0.4	8.0		7.0	
Middle	Minnesota	0.05	1.0			
Bottom	Kentucky	0.11	2.2			1.2
		% of Lake Acreage				
	State	**Assessed**				
Top	State Y	0.67	0.6		-0.2	
Middle	Minnesota	0.88	0.8			
Bottom	Kentucky	0	0.0			-0.8
				Total FTEs ...	22.3	16.8

Minn. Funding	Minn. FTEs	Total Funding	Add'tl Funding
Top	22.3	$1,499,858	$227,566
Middle	18.9	$1,272,291	$0
Bottom	16.8	$1,133,811	($138,481)

Training and Assistance

Training	State	# People Trained/ # Permitted Facilities	Minn. FTEs	Minn. FTEs ...	Mean	Bottom
					10	10
Top	Minnesota	1.25	10.0			
Middle	Mean	0.57	4.6		-5.4	
Bottom	Oregon	0	2.0			-8.0
	State	# Classes Offered				
Top	Minnesota	16	10.0			
Middle	Mean	19	11.9		1.9	
Bottom	Oregon	0	2.0			
				Total FTEs ...	6.4	2.0

Minn. Funding	FTEs	Total Funding	Add'tl Funding
Top	10.0	$673,170	$0
Middle	6.4	$433,185	($239,985)
Bottom	2.0	$134,634	($538,536)

Section 3.0

Options for Improving the Point Source Program

Section 3.0 Options for Improving the Point Source Program

Background

The purpose of this section is to highlight potential alternatives for making improvements to the point source program. Two of the main inputs to the point source program assessment performed by Arthur Andersen for MPCA were information gathered through a benchmarking survey and information and ideas gained through individual and group interviews with a wide range of MPCA stakeholders as well as from focus group sessions held with a similarly wide range of stakeholders. More specifically, Arthur Andersen:

- Conducted an extensive and detailed benchmarking survey which was prepared and sent to eighteen state participants, including Minnesota. The states chosen included all the states comprising U.S. EPA Region 5 and other states which were chosen because of some demographic, geographic, environmental, or program attribute(s) which were similar to those existing in Minnesota. Sixteen of the eighteen states responded to the survey. A full listing of the state participants with all survey questions and responses is provided in Exhibit B to this report. Note that three of the participating states requested anonymity. Those states are referred to as States X, Y, and Z throughout this report.

- Conducted interviews with approximately twenty MPCA staff members and managers assigned various point source program responsibilities.

- Facilitated three half-day focus group sessions held at three locations across the state and attended by approximately twenty participants representing the range of MPCA stakeholders.

Details from these activities are discussed in this section as well as in several of the exhibits to this report.

Focus Groups

Arthur Andersen facilitated three focus groups as part of its scope of work for MPCA. The primary goal for these focus group sessions was to open up and expand the process review being performed to include the range of MPCA customers and stakeholders. The focus groups were held on three consecutive days in three cities across Minnesota: Alexandria, Duluth, and St. Paul. Participants included representatives from the following types of organizations:

- Environmental interest organizations
- MPCA permittees
- Public and city administrators
- Municipalities, and
- Industrial organizations

The main focus for each of the three sessions was on opportunities for improving MPCA's permitting performance. As a result, many significant performance improvement opportunities were discussed and debated at length. A summarization of these opportunities (in table form) is provided in this section. Additional focus group summary material, including attendance lists, is provided in Exhibit C.

Benchmarking Survey Data

In addition to the focus group opportunities detailed in this section, a number of charts are provided to summarize data gained from the benchmarking survey. In many cases, the raw data has been converted into ratios and percentages related to key activities and subactivities for the different functional areas. Further, a series of charts is provided which look at options and opportunities for process improvement in terms of cost reduction and service improvement. The opportunities which are highlighted on pages 37 - 40 in this section were based on a review of the other state's performance and funding levels as reported in the benchmarking surveys.

The complete benchmarking survey database is provided in Exhibit B.

Focus Group Summary - Options to Consider

Permitting	Process	Legislative
Evaluate permit type / length		X
Revise permit process	X	
- Application package		
- Organization		
- Permit		
- Staffing		
- Information exchange		
Fee for expedited permits	X	X
Additional education / training	X	
Accountability of permittee	X	X

Focus Group Summary - Options to Consider

Compliance & Enforcement	Process	Legislative
Evaluate / coordinate inspection process	X	
- Scheduling		
- Checklist		
Improve information exchange	X	
Additional training / education	X	
Evaluate use of enforcement actions	X	X
- Matrix		
- APOs		

Focus Group Summary - Options to Consider

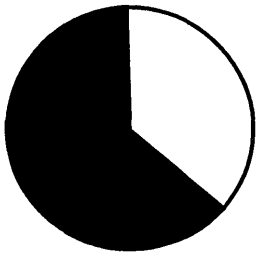
Water Quality Standards	Process	Legislative
Review standard setting process - Triennial review	X	
Align cross media WQ planning	X	
Establish state-wide benchmarking	X	
Evaluate ambient water quality monitoring process	X	X
Review effluent limit determination process	X	

Focus Group Summary - Options to Consider

Training & Assistance	Process	Legislative
Evaluate cost/benefit of providing training	X	X
Review funding sources for training		X
Evaluate need for additional/targeted training	X	

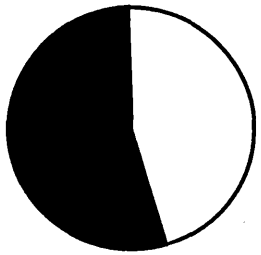
Minnesota Municipal/Industrial Comparison

Resources



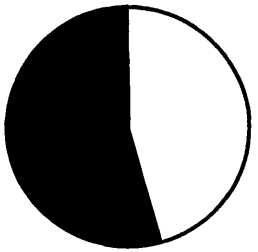
Industry $2,510,000
Municipal $4,408,000

Fees



Industry $ 851,000
Municipal $1,032,000

Facilities



Industry 622
Municipal 743

Municipal ■ Industrial □

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Minnesota Municipal/Industrial Comparison

	Municipal	Industrial
Permits per FTE	35.4	47.8
Percent of General Permits	8.2%	30.5%
Inspections per Permit	24.6%	6.9%
Inspections per FTE	13.6	7.3
Training and Assistance Total FTEs	9.4	.6
Percent of Training Attendees	88%	12%

State Summary

	EPA Delegated	Total Permits	Total River Miles	Total FTEs	Total Funding
Colorado	YES	1,087	31,470	44	$ 3,122,965
Connecticut	YES	2,861	8,400	55	$ 5,285,238
Indiana	YES	1,877	20,000	134	$ 7,499,629
Kentucky	YES	10,231	13,295	114	$ 6,037,536
Maryland	YES	1,353	17,000	67	$ 4,221,558
Massachusetts	NO	736	8,053	19	$ 843,600
Michigan	YES	2,000	36,350	120	$ 7,100,211
Minnesota	YES	1,365	91,944	103	$ 6,934,000
Montana	YES	775	51,212	10	$ 547,619
North Carolina	YES	7,622	37,222	162	$10,654,118
Ohio	YES	2,959	43,917	165	$13,216,837
Oregon	YES	3,638	90,000	74	$ 5,441,176
Washington	YES	1,965	40,492	53	$ 3,683,688
X State	YES	3,106	> 30,000	142	$17,248,189
Y State	YES	3,728	< 30,000	101	$ 6,727,105
Z State	YES	655	<30,000	24	$ 1,616,000

Program Staffing

	Permitting	Compliance & Enforcement	Water Quality Stds	Training & Assistance	Total
Colorado	11.6	7	11.8	13.3	44
Connecticut	32	13	5	5	55
Indiana	29	49	50	6	134
Kentucky	29	69	5	11	114
Maryland	20	16.8	27	3	67
Massachusetts	4.25	8	5	2	19
Michigan	40	55	10	15	120
Minnesota	35	38	19.8	10	103
Montana	3.5	1.1	0.9	4.1	10
North Carolina	47	45	64	6	162
Ohio	64	60	37	4	165
Oregon	60	8	4	2	74
Washington	26	24	0	3	53
X State	59	9	64	10	142
Y State	32	56	10	3	101
Z State	12	7	2	2.5	24

Permitting Activity Drivers

	Issued Permits as % of Total Permits	Permits Issued Per FTE	Current Backlog	General Permits as % of Total Permits
Colorado	37%	34.5	18%	42%
Connecticut	33%	29.4	24%	70%
Indiana	14%	9.4	56%	10%
Kentucky	10%	35.4	3%	76%
Maryland	22%	14.9	9%	0%
Massachusetts	4%	7.1	34%	7%
Michigan	17%	8.7	55%	14%
Minnesota	17%	6.7	34%	18%
Montana	55%	121.7	8%	62%
North Carolina	63%	102.5	2%	77%
Ohio	18%	8.4	51%	0%
Oregon	11%	6.8	6%	80%
Washington	18%	13.6	20%	58%
X State	42%	22.0	30%	49%
Y State	20%	23.5	26%	12%
Z State	24%	13.1	70%	14%

Compliance/Enforcement Activity Drivers

	Inspections as % of Total Permits	Inspections per FTE	Formal Enforcement Actions	Formal Enforcement Actions as % of Total Permits
Colorado	53%	82.3	14	1%
Connecticut	51%	113.1	364	13%
Indiana	78%	30.0	67	4%
Kentucky	32%	48.1	1918	19%
Maryland	182%	146.8	355	26%
Massachusetts	52%	48.1	95	13%
Michigan	44%	15.9	38	2%
Minnesota	32%	11.5	43	3%
Montana	8%	59.1	2	0%
North Carolina	16%	27.2	2264	30%
Ohio	21%	10.5	2707	91%
Oregon	55%	250.9	80	2%
Washington	45%	37.1	196	10%
X State	26%	89.0	90	3%
Y State	24%	15.7	54	1%
Z State	68%	63.3	102	16%

Water Quality Standards Activity Drivers

	Effluent Limits Per Issued Permits	Percent of General Permits Issued	Ambient Sites Monitored Per 1000 River Miles	Number of Water Quality Standards Finalized
Colorado	28%	42%	2.415	50
Connecticut	1%	70%	4.762	0
Indiana	26%	10%	10.000	0
Kentucky	34%	76%	6.769	0
Maryland	100%	0%	79.412	0
Massachusetts	57%	7%	6.209	0
Michigan	37%	14%	3.851	0
Minnesota	77%	18%	0.990	6
Montana	15%	62%	0.351	0
North Carolina	6%	77%	9.403	0
Ohio	17%	0%	4.440	0
Oregon	0%	80%	7.444	0
Washington	0%	58%	6.026	0
X State	4%	49%	Not Avail.	1
Y State	17%	12%	26.634	0
Z State	59%	14%	0.625	0

Training & Assistance Activity Drivers

	Total FTEs	Total Certified Operators	Training Attendees Per Facility	Municipal OJT Offered	Industrial OJT Offered
Colorado	13.3	350	0.46	NO	NO
Connecticut	5	Not Avail.	-	YES	NO
Indiana	6	2800	-	YES	NO
Kentucky	11	159	0.03	NO	NO
Maryland	3	644	0.95	YES	YES
Massachusetts	2	1500	1.63	YES	NO
Michigan	15	1404	0.78	YES	YES
Minnesota	10	779	1.25	YES	NO
Montana	4.1	500	0.84	YES	NO
North Carolina	6	1388	0.12	YES	YES
Ohio	4	453	-	NO	NO
Oregon	2	1600	-	YES	YES
Washington	3	1900	-	YES	NO
X State	10	3314	-	YES	YES
Y State	3	540	0.07	YES	YES
Z State	2.5	95	0.15	YES	NO

Benchmarking Opportunity Analysis

Permitting	Reduce Cost	Improve Service
Increase permits issued per FTE - Streamline permit process - Use more general permits - Evaluate ratio of regional staff - Adopt basin planning	X	X
Decrease permit backlog		X
Reduce time required to issue a permit	X	X
Consider outsourcing certain responsibilities	X	X

Benchmarking Opportunity Analysis

Compliance & Enforcement	Reduce Cost	Improve Service
Increase inspections performed per FTE - Evaluate ratio of regional staff - Provide access to available data - Adopt basin planning	X	X
Revise scheduling and coordination of inspections	X	X
Consider outsourcing certain functions	X	X

Benchmarking Opportunity Analysis

Water Quality Standards	Reduce Cost	Improve Service
Increase percent of river miles assessed		X
Evaluate process for obtaining and monitoring water quality data.Evaluate process and criteria for revising water quality standards.	X X	X
Consider availability of existing data	X	X
Review consistency of effluent limit determinations	X	X

Benchmarking Opportunity Analysis

Training & Assistance	Reduce Cost	Improve Service
Outsource training development and/or delivery	X	
Recover additional costs through increased tuition	X	
Increase number of classes offered		X
Perform training needs analysis		X

Section 4.0

Permitting Best Practices

Section 4.0 Permitting Best Practices

Background

Throughout this report, the four main functional areas comprising the MPCA Water Quality Division's Point Source Program are discussed and analyzed in different ways. In this section, special focus is placed on the "permitting" function -- for two primary reasons: 1.) permitting activities at MPCA consume 35 full-time equivalents (FTEs) in staffing resources. This represents approximately 35% of MPCA's total resource pool assigned to point source program activities, and 2.) all point source program activities center around the issuance and maintenance of a permit or permits. Hence, the "permitting" function is both the starting point and the cornerstone of the program.

As part of its assessment of MPCA's point source program, Arthur Andersen identified opportunities for improvement in the permitting functional activity area. To accomplish this, AA first performed a process review (at a high level) of MPCA's permitting function. The process review entailed:

- An extensive and detailed benchmarking survey which was prepared and sent to eighteen state participants, including Minnesota. The states chosen included all the states comprising U.S. EPA Region 5 and other states which were chosen because of some demographic, geographic, environmental, or program attribute(s) which were similar to those existing in Minnesota. Sixteen of the eighteen states responded to the survey. A full listing of the state participants as well as all survey questions and responses is provided in Exhibit B to this report. Note that three of the participating states requested anonymity. Those states are referred to as States X, Y, and Z throughout this report.

- Interviews held with approximately twenty MPCA staff members and managers assigned various point source program responsibilities.

- Three half-day focus group sessions held at three locations across the state and attended by approximately twenty participants representing the range of MPCA stakeholders. The Focus Group Summaries are provided as Exhibit C.

- A compilation of "best business practices" implemented by other leading organizations.

Following the process review, Arthur Andersen, at the request of the Blue Ribbon Task Force, performed a "Process Change Analysis" to analyze and assess the opportunities for change in terms of both service and performance and their potential impact on resources and funding for the "permitting" and "compliance and enforcement" functional areas. The analysis was performed solely on these two areas. It did not include the water quality standards and monitoring or training and assistance areas.

Permitting Improvement Opportunities

Pages 42 through 49 (in this section) detail the many opportunities identified through the range of process review activities mentioned above. In tabular form, the opportunities are categorized in four areas: 1.) people, 2.) process, 3.) technology, and 4.) other. Included on these tables is an indication of the extent to which MPCA has currently implemented these practices. In some cases, MPCA's performance is marked with an "I" representing efforts are substantially underway to make improvements in that area. It should be noted that the absence of any remark in the Minnesota column does not mean that MPCA hasn't started to implement changes in that area. ***While efforts have started in several of these areas,*** in our opinion, not enough progress has been made to warrant an "I" (substantially underway) or an "X" (fully implemented.) It should also be noted that the purpose of these tables was not to provide an analysis of all the efforts currently underway at MPCA, but rather to focus on items which could provide opportunities for process improvements.

Process Change Analysis

The purpose of the analysis is to look at potential savings and/or efficiencies which might be gained through successful implementation of process or regulatory changes. It should be noted that this analysis is based only on results gained from the state benchmarking survey. Significant additional analysis would need to be completed before any determinations could be made as to the extent of savings, if any, that Minnesota could achieve as a result of process or regulatory changes. Hence, **in Arthur Andersen LLP's professional opinion, it would be inappropriate to draw any conclusions or make any recommendations related to staffing levels or funding options based solely on this analysis.**

As was discussed in Section 2, MPCA's point source program performance was benchmarked against fifteen other states who responded to the benchmarking survey. Through the benchmarking database and the Funding vs. Service Level indices detailed in Section 2, Arthur Andersen determined the top (bottom of the top), middle (mean), and bottom (top of the bottom) performing states in each of the four functional areas. For this process change analysis, focus was placed only on the top and middle programs. The impact of process change to move MPCA's performance to the top of the bottom quartile was not assessed.

Page 50 offers a program summary based on process changes which if effectively designed and implemented could potentially move MPCA's performance in the direction of that of the top performing state in the permitting area: Washington state; and in the compliance and enforcement area: Indiana/Oregon. Note that while supporting charts and spreadsheets include an assessment of process change to a middle level program, the summary page only shows details for the top level program. Note also that only the most relevant, important, and measurable service level criteria for each of these areas was used to assess impact of process change.

Top Level Program With No Process Changes

In simplest terms, this analysis shows that if Minnesota desired to achieve the permitting and compliance/enforcement performance levels of the top performing states without instituting any changes in their current process, i.e. they continue to issue permits at a rate of 6.7 permits per FTE and they continue to perform inspections at the rate of 11.5 facilities per FTE, they would need to grow staffing from 73 FTEs to approximately 128 FTEs. This would translate into the need for additional funding of approximately $3.7 million per year in these two areas.

Top Level Program With Process Changes

In its simplest terms, this analysis shows that if Minnesota desired to achieve the permitting and compliance/enforcement performance levels of the top performing states and if MPCA was able to garnish the full effectiveness, efficiencies, and cost savings associated with the full range of potential process change opportunities, it could potentially perform at those higher levels of performance with 17 fewer FTEs. This could translate into a net annual savings (from current staffing levels) of approximately $1.2 million per year from process changes effectively implemented in these two areas alone.

For this analysis, the following assumptions for process change were made:

Permitting:

- MPCA increases its permit issuance rate from 6.7 to 13.6 per FTE (Washington's current rate),
- MPCA improves turnaround time for the issuance of permits from 47 weeks to 24 weeks (Washington's current rate),

Compliance and Enforcement:

- MPCA increases the number of facilities inspected per FTE from 11.5/FTE to 30/FTE (Indiana's current number per FTE), and
- MPCA increases the number (percentage) of facilities inspected from 32% to 55% (Oregon's current percentage.)

Sample of Permitting *Critical Success Factors*

- Protect and Maintain Environmental Quality
- Maintain a Qualified and Motivated Staff
- Ensure Initial Application Sufficiency and Technical Adequacy
- Process Applications Efficiently and Consistently
- Ensure Quality Permits
- Effectively Communicate Application Requirements and Permit Information
- Ensure Effective Public Participation

Permitting Improvement Opportunities

People	Minnesota
❑ Provide one primary contact point for each permittee or type of permit.	
❑ Define responsibility and accountability of staff and management involved in permitting process.	X
❑ Assure staff, management, applicant and consultant accountability for quality and timeliness.	
❑ Assure that management and staff are aware of the technical and legal criteria for decision making.	
❑ Provide a formal job rotation program.	

Note: This is not an evaluation of the MPCA permitting process.
It is designed to highlight potential process improvement opportunities.

I = In progress

Permitting Improvement Opportunities

People

Minnesota

- Make best use of the expertise of all staff (i.e. focus technical expertise on technical matters; non-tech staff on admin tasks, including initial completeness review).
- Minimize number of persons reviewing permits (draft to final), while maintaining appropriate quality control by managers.
- Maximize use of team approach to create consistency and coordination, eliminating redundancies. I
- Develop formal training programs for staff and management with identified curriculum and requirements. I

Note: This is not an evaluation of the MPCA permitting process.

It is designed to highlight potential process improvement opportunities.

I = In progress

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Permitting Improvement Opportunities

Process — Minnesota

- Assure timely and thorough application reviews and high quality permits.
- Provide clear, concise and complete application instructions and forms.
- Determine as early as practicable in application review whether all requirements can be met and reject for incompleteness or deny as appropriate.
- Revise process to eliminate unnecessary information request-response cycles.
- Establish efficient schedules for permit renewals and reviews.

Note: This is not an evaluation of the MPCA permitting process.
It is designed to highlight potential process improvement opportunities.

I = In progress

Permitting Improvement Opportunities

Process	Minnesota
❑ Evaluate centralized/regionalized activities.	I
❑ Develop guidance manuals and checklists for procedures, policies and rules for consistency and training.	I

Note: This is not an evaluation of the MPCA permitting process.
It is designed to highlight potential process improvement opportunities.

I = In progress

Permitting Improvement Opportunities

Technology	Minnesota
❑ Utilize a centralized computer tracking system.	I
❑ Access to uniform and centralized compliance history reviews.	I
❑ EDI with permittees to automate information exchanges.	I
❑ Maintain a computer system which has permit information available to public.	I

Note: This is not an evaluation of the MPCA permitting process.
It is designed to highlight potential process improvement opportunities.

I = In progress

Permitting Improvement Opportunities

Other — Minnesota

❑ Incorporate basin planning management.	I
❑ Incorporate use of pollution prevention and waste minimization in permits.	I
❑ Maximize use of general permits where applicable and practical.	I
❑ Maximize consistency between media programs where appropriate: - procedural steps in permit process - method of tracking contact with applicants - form and language of permits and other documents - duration of permits - self-reporting requirements for permittees - timing of submission of application	

Note: This is not an evaluation of the MPCA permitting process.
It is designed to highlight potential process improvement opportunities.

I = In progress

Permitting Improvement Opportunities

Other

Minnesota

- Evaluate activities for additional surcharge (expedited permits, training).
- Evaluate various outsourcing opportunities (including permittee training program).
- Develop measurement systems to assess adequacy of permitting process, including customer satisfaction index. — I

Note: This is not an evaluation of the MPCA permitting process.
It is designed to highlight potential process improvement opportunities.

I = In progress

Process Change Analysis

	Top Level Service No Process Changes		Top Level Service Process Changes		Minnesota Current	
	Funding	FTEs	Funding	FTEs	Funding	FTEs
Permitting	$4,210,000	62.5	$2,073,000	31	$2,356,000	35
Compliance & Enf.	$4,408,000	65.5	$1,683,000	25	$2,558,000	38
	$8,618,000	128	$3,756,000	56	$4,914,000	73

Note:
The purpose of this analysis is to look at potential savings and/or efficiencies which might be gained through successful implementation of process or regulatory changes. This analysis is based only on results gained from the state benchmarking survey. Significant additional analysis would need to be completed before any determinations could be made as to the extent of savings that Minnesota could achieve as a result of process or regulatory changes. Hence, in Arthur Andersen LLP's professional opinion, it would be inappropriate to draw any conclusions or make any recommendations related to staffing levels or funding options based solely on the analysis provided on these pages.

Process Change - Permitting

Permitting	Top		Middle		Minnesota
	Current	Revised	Current	Revised	
% Backlog	20.0%	20.0%	28.0%	28.0%	34.0%
Permit Issuance (Weeks)	24	24	36	36	47
Permits Issued	370	370	315	315	236
Permits/FTE	6.7	13.6	6.7	13.6	6.7
FTEs	62.5	31	46.3	23	35
Funding	$4,210,588	$2,072,720	$3,116,777	$1,535,471	$2,356,095
Net		($2,137,868)		($1,581,306)	

Note:
The purpose of this analysis is to look at potential savings and/or efficiencies which might be gained through successful implementation of process or regulatory changes. This analysis is based only on results gained from the state benchmarking survey. Significant additional analysis would need to be completed before any determinations could be made as to the extent of savings that Minnesota could achieve as a result of process or regulatory changes. Hence, in Arthur Andersen LLP's professional opinion, it would be inappropriate to draw any conclusions or make any recommendations related to staffing levels or funding options based solely on the analysis provided on these pages.

Process Change - C&E

Compliance & Enforcement	Top		Middle		Minnesota
	Current	Revised	Current	Revised	
Inspections Performed	751	751	532	532	437
% Facilities Inspected	55%	55%	39%	39%	32%
Facilities/FTE	11.5	30.0	11.5	24.2	11.5
FTEs	65.5	25	46.3	22	38
Funding	$4,408,027	$1,682,925	$3,118,751	$1,480,974	$2,558,046
Net		($2,725,102)		($1,637,777)	

Note:
The purpose of this analysis is to look at potential savings and/or efficiencies which might be gained through successful implementation of process or regulatory changes. This analysis is based only on results gained from the state benchmarking survey. Significant additional analysis would need to be completed before any determinations could be made as to the extent of savings that Minnesota could achieve as a result of process or regulatory changes. Hence, in Arthur Andersen LLP's professional opinion, it would be inappropriate to draw any conclusions or make any recommendations related to staffing levels or funding options based solely on the analysis provided on these pages.

Exhibits

Exhibit A	Statutory Program Analysis
Exhibit B	Benchmarking Survey Data
Exhibit C	Process Review & Focus Group Summaries
Exhibit D	General Permit Analysis

Exhibit A

Statutory Program Analysis

Exhibit A

Statutory-Driven Program Requirements
Assumptions and Definitions

The Arthur Andersen project team, in response to a request made by the Blue Ribbon Task Force, performed an assessment of statutory-driven program requirements for MPCA's Water Quality Point Source Program. This narrative offers the underlying assumptions used to determine statutory-driven program requirements. The statutory-driven program itself is provided on the following pages in spreadsheet format. Individual spreadsheets are offered for each of four functional areas as follows: 1.) Permitting, 2.) Compliance and Enforcement, 3.) Water Quality Standards, and 4.) Training & Assistance.

It should be noted that in the performance of this task, Arthur Andersen LLP has not taken the position that a statutory-driven program is an adequate program. We have simply responded to a request by the Blue Ribbon Task Force to define what is specifically required by regulation or statute. Other variables and factors, including requirements for delegation, adequate quality control, and what service level must be provided to meet customer and stakeholder wants and needs, would have to be studied and addressed to define an adequate program. These factors were not addressed during this assessment of statutory-driven program requirements.

1.0 Statutory-Driven: Definition and Regulatory Citations

At its meeting in early October, the Blue Ribbon Task Force directed Arthur Andersen LLP to define a statutory-driven Point Source program as part of the scope of work then underway. During the discussion related to this request, "statutory-driven" was defined by the BRTF as: *Point Source Program activities managed and performed by MPCA (excluding feedlot and stormwater activities) which are mandated by federal and/or state requirements.*

Adhering strictly to the aforementioned definition of statutory-driven program requirements, the Arthur Andersen project team reviewed the following federal and state sources to determine the regulatory requirements and mandates which are currently driving MPCA's Point Source Program activities:

- The Clean Water Act of 1970 (various sections),
- Code of Federal Regulations, Title 40, "Protection of Environment," (various parts),
- Minnesota Statute 115, "Water Pollution Control,
- Minnesota Statute 116, "Pollution Control Agency",
- State of Minnesota Rules; "Pollution Control Agency Water Quality Rules," Chapters 1001 to 7100.

2.0 General

In an effort to make specific citations for the many activities and functions performed and managed by MPCA staff, the Arthur Andersen project team looked very closely at the previously mentioned federal and state statutes and requirements which serve as drivers for MPCA Point Source Program activities. For those cases where specific citations could not be found by the project team, Arthur Andersen worked with MPCA staff to review the regulatory citations for the activities in question.

For many activities, specific citations were found to warrant adding those activities to the statutory-driven program as it was being defined. For activities where it was evident that the activity/activities were not driven by federal or state mandate, the FTEs associated with the activity were removed from statutory-driven program requirements.

For several key activities, however, citations were not apparent. On a case by case basis for these activities, the Arthur Andersen team either: 1.) kept the complete activity out of the statutory-driven program because no relevant regulatory citation could be found or 2.) built part or all of the activity or activities in question into the statutory-driven program based on some level of "interpretational" understanding of the regulations. Details and assumptions made for each of these interpretational cases are provided in the sections that follow.

2.1 Permitting

To perform the statutory-driven assessment in the "permitting" functional area, Arthur Andersen, consistent with MPCA's Inventory of Point Source Program Activities," split the permitting functional area into two major categories: 1.) document development activities, and 2.) technical review activities.

2.1.1 Document Development

Federal and state mandates for most activities in the "document development" area were clearly defined and with a few exceptions, most of the FTEs assigned in this area were defined as statutory-driven. Exceptions include several "Application Review" subactivities where approximately 1.7 FTEs (out of 3.9) are not required by federal or state mandates. These activities include compliance history reviews and site visits specifically related to permit issuance/reissuance. In addition, the activity of negotiating permit conditions with permittees during "Pre-Public Notice" was also excluded (approximately 2.3 FTEs out of 4.1). Further, because it is assumed that managers and supervisors are performing tasks not directly related or required by federal or state mandates, the administrative/management component of 5.5 FTEs was reduced by the number of managers and supervisors assigned in this area (approximately 2.8 FTEs). Although the supervisors play an important role in the current process, the majority of supervision and review is not statutory-driven.

2.1.2 Technical Review Activities

"Technical review" related activities at MPCA currently involve approximately 14 FTEs. Approximately 75% of these activities are required by federal and state requirements which involve projects funded by the federal government. Because approximately 3.6 FTEs are involved in projects not related to these requirements, the component of 14 FTEs was adjusted downward to a statutory-driven component of approximately 10.4 FTEs to account for both review and assistance provided on non-federally financed projects as well as for supervisory time spent in this area.

2.2 Compliance and Enforcement

In the compliance and enforcement functional area, there were several activities performed which are not mandated by federal or state requirement. For these activities the associated FTEs are taken out of the statutory-driven program. For the "minor inspections" subactivity, a downward adjustment from 2.9 FTEs to 1.5 FTEs was made to the statutory-driven program. This was done to reflect an assumption made that while the Agency must have a program to verify the permittee's reporting and monitoring that minor inspections are not necessarily required to be completed every three years -- the current MPCA goal for minor inspections.

As was done in the permitting area, because it is assumed that managers and supervisors are performing tasks not directly related or required by federal or state mandates, the administrative/management component of 9.5 FTEs was reduced by the number of managers and supervisors assigned in this area to approximately 4.8 FTEs.

2.3 Water Quality Standards

In the Water Quality functional area, Arthur Andersen determined that federal and state requirements mandate all activities except those in the Ambient WQ Monitoring area where specific requirements are not well defined. Currently, there are approximately 5.4 FTEs involved in these ambient water quality monitoring activities.

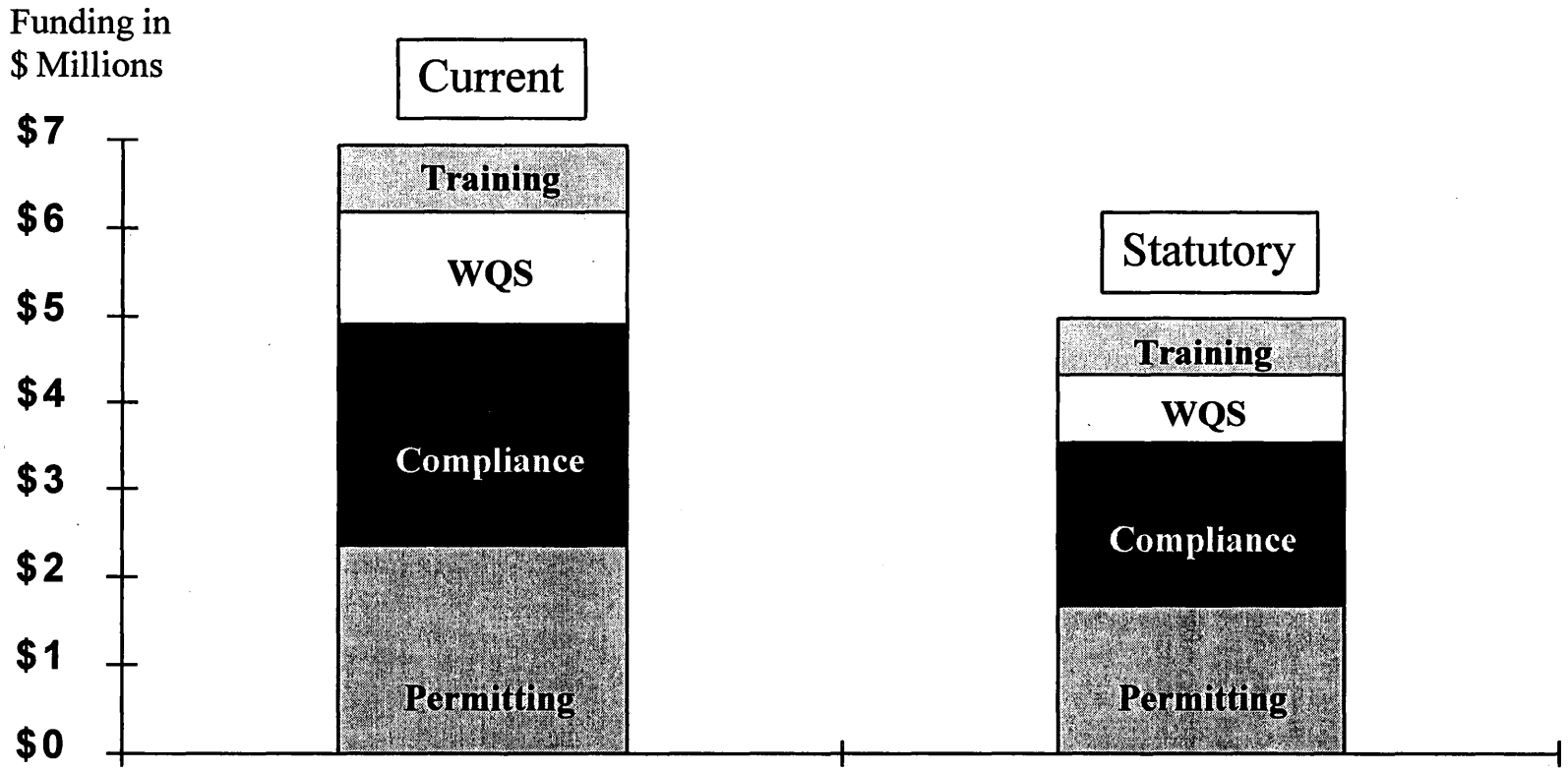
Of the 5.4 FTEs performing ambient monitoring activities, approximately 1.1 FTEs perform mandated monitoring activities related to "fixed station" monitoring of sites which are part of the National Network of Sites. The 5.4 FTEs assigned here have been adjusted downward to 1.1 FTEs to reflect this interpretation. It should be noted, however, that many of the activities performed by this contingency of 5.4 FTEs, while not specifically mandated by federal or state regulation, are performed in response to model program monitoring guidelines developed by U.S. EPA to assist states in meeting the funding requirements of Section 106 of the federal Clean Water Act. While not specifically required by mandate, elimination of some or all of these FTEs could jeopardize future federal funding opportunities.

As was done in the other areas, because it is assumed that managers and supervisors are performing tasks not directly related or required by federal or state mandates, the administrative/management component of 4.7 FTEs was reduced by the number of managers and supervisors assigned in this area to approximately 2.4 FTEs.

2.4 Training and Assistance

All activities in this area are mandated at a minimum by state requirements with the exception of managers and supervisors performing tasks not directly related or required by federal or state mandates. Hence, the administrative/management component of 2.7 FTEs was reduced by the number of managers and supervisors assigned in this area to approximately 1.4 FTEs. It should be noted that the majority of the 9.8 FTEs that are included in the statutory-driven program are primarily driven by state, not federal, requirements.

Current vs. Statutory Funding Comparison



	Current	Statutory
Funding	$ 6,934,000	$ 4,981,709
FTEs	103	74

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Statutory Program Funding Summary

	1994		Statutory	
	$$	FTEs	$$	FTEs
Permitting	$2,356,214	35.3	$1,683,010	25.0
Compliance & Enforcement	2,558,175	38.0	1, 851,311	27.5
Water Quality Standards	1,272,355	18.9	787,649	12.0
Training and Assistance	747,256	11.1	659,740	9.8
TOTALS	$6,934,000	103.3	$ 4,981,710	74.3*

* Includes 50% reduction in management/administration.

Permitting Activity Analysis		FTEs	Fed	State	Base	Comments
	Activity					
Application Review		**3.9**			**2.2**	
	Mail Application	0.1			0.1	
	Review Application	0.9	x	x	0.9	40CFR122-124, Minn. R. 7001
	Review Existing Permit Conditions	0.3	x	x	0.3	40CFR122-124, Minn. R. 7001
	Compliance History Review	0.8				CWA 401, 40CFR121.26, 40CFR123.26
	Site Visits	0.9				CWA 401, 40CFR121.26, 40CFR123.26
	Review Changes From Existing Permit	0.9	x	x	0.9	40CFR122-124
Permit Limit Determination		**2.8**			**2.8**	
	Determine Water Quality Based Effluent Limits	1.1	x	x	1.1	40CFR122 and 401, Minn. R. 7001.1080
	Determine Technology Based Limits (INDUSTRIAL)	1.7	x	x	1.7	40CFR122 and 401, Minn. R. 7001.1080
Draft Permit and Fact Sheet		**2.8**			**2.8**	
	Determine Monitoring Freq. and Sampling Protocols	0.2	x	x	0.2	40CFR124 and 401, Minn. R. 7001.0100
	Draft Permit Language and Public Notice	1.7	x	x	1.7	40CFR124 and 401, Minn. R. 7001.0100
	Draft Fact Sheet	0.9	x	x	0.9	40CFR124 and 401, Minn. R. 7001.0100
Pre Public Notice		**4.1**			**1.8**	
	Coordinate w/WQD Enforcement & Regional Staff	0.5		x	0.5	Minn. R. 7001.0100
	Coordinate w/Other Divisional PCA Staff	0.8		x	0.8	Minn. R. 7001.0100
	Negotiate Permit Conditions w/Permittee	2.3				
	Complete Revisions to Draft Permit	0.6	x	x	0.6	40CFR122-124, Minn. R. 7001
Public Notice		**1.2**			**1.2**	
	Prepare Notice and Draft Permit	0.3	x	x	0.3	40CFR124, Minn. R. 7001.0100
	Comment Period	0.0	x	x	0.0	40CFR124, Minn. R. 7001.0100
	Responding to Comments	0.9	x	x	0.9	40CFR124, Minn. R. 7001.0100
Public Informational Meetings		**0.6**			**0.6**	
	Meetings Held to Clarify and Resolve Issues	0.6	x	x	0.6	40CFR124, Minn. R. 7001.0120
Contested Case Hearings		**0.2**			**0.2**	
	Meetings Held In Response to Petition By Any Person	0.2	x	x	0.2	40CFR124, Minn. R. 7001.0130
Processing and Mailing		**0.1**			**0.1**	
		0.1	x	x	0.1	40CFR123, Minn. R. 7001.0090 and 0140
Admin/Management		**5.5**			**2.8**	
		5.5			2.8	50% Supervision and Management
Total Document Development Activities		**21.3**			**14.6**	

Permitting Activity Analysis, Page 2 of 2			Fed	State	Base	
Technical Review		**14.0**			**10.4**	
	Facility Plans	1.6	x	x	1.3	Minn R. 7077 20% Non-Financial Assistance Projects
	Plans & Specifications	2.5	x	x	2.4	Minn. Stat. 115.03; Minn. R. 7077 38% Non-Financial Assistance Projects
	Permit Assistance	2.0	x	x	2.0	51% Non Financial Assistance Projects
	Constr. Assistance	0.6	x	x	0.4	Minn. Stat. 115.03; Minn R. 7077 10% Non-Financial Assistance Projects
	Training	0.7	x		0.3	52% Non-Financial Assistance Projects
	Special Projects	1.0	x		0.5	55% Non-Financial Assistance Projects
	Q&A Resolution	1.3	x		0.9	25% Non-Financial Assistance Projects
	Sewer Extensions	1.0	x		1.0	Minn. Stat. 115.03; 115.07
	Admin/Management	3.3			1.65	50% Supervision and Management
Total Technical Review Activities		**14.0**			**10.4**	
TOTAL PERMITTING ACTIVITIES		**35.3**			**25.0**	

Compliance and Enforcement Activity Analysis						
	Activity	FTEs	Fed	State	Base	Comments
Compliance Assistance		**5.4**			**1.0**	
	Help understanding permit	2.9				
	Training/Admin/Other	0.5				
	Special Projects	2.0		x	1.0	Performance Reports, Internal Audits, etc.
Inspections		**10.0**			**8.6**	
	Annual major facility inspection	1.5	x		1.5	CWA 308; 40 CFR 123.26
	Minor inspections	2.9	x	x	1.5	CWA 308; 40 CFR 122.41, 123.26; Minn. Statute 115.03
	Complaints	1.4	x		1.4	CFR 123.26
	Compliance Determination	2.9	x		2.9	CWA Sec. 401; 40 CFR 123.26
	Pretreatment compliance	1.3	x		1.3	CFR 403.10
Enforcement		**5.8**			**5.8**	
	Formal actions	2.9	x	x	2.9	CWA 309; 40 CFR 123.27; Minn. Statute 115.03, 116.07
	Informal actions	2.9	x	x	2.9	CWA 309; 40 CFR 123.63; Minn. Statute 115.071, 116.07
Technical Support		**4.3**			**4.3**	
	Engineers Tech Review	2.3	x	x	2.3	40 CFR 123; Minn. Rule 7077.02
	Hydrol/Soils	2.0	x	x	2.0	40 CFR 123; Minn. Rule 7077.02
Data Entry		**3.0**			**3.0**	
	Manual entry of monitoring rep	2.5	x		2.5	40 CFR 123.26, 123.43
	EPA report submission	0.1	x		0.1	40 CFR 123.26, 123.43
	Reporting assistance	0.1	x		0.1	40 CFR 123.26
	Information requests / distributi	0.3	x		0.3	40 CFR 123.26
Admin/Mgmt		**9.5**			**4.8**	
		9.5			4.8	
TOTAL COMPLIANCE & ENFORCEMENT		**38.0**			**27.5**	

Water Quality Standards, Rulemaking, and Monitoring Activity Analysis						
		FTEs	Fed	State	Base	Comments
	Activity					
Rules and Rulemaking		2.2			2.2	
	Triennial Standards/Rulemaking					
	Developing New Rules	1.7	x	x	1.7	40CFR131.20
	Public Comment	0.4	x	x	0.4	40CFR131.20
	Citizen Board Approval	0.0		x	0.0	Minn. Statutes 115 and 116
	EPA Review and Approval	0.0	x		0.0	40CFR131.20
Ambient WQ Standard Determination		2.2			2.2	
	Determine Appropriate Ambient Standards	1.9	x	x	1.9	40CFR131; CWA; Minn. R. 7050.0220
	Procedures for Criteria Calculation	0.3			0.3	Minn. R. 7050.0217-.0218
Effluent Limit Determination		4.4			4.3	
	Determine Effluent Limits	3.3	x	x	3.3	40CFR131; CWA 301, 303, 402; Minn. R. 7050.0210-.0216
	Whole Effluent Toxicity Testing	0.2	x	x	0.2	40CFR131; CWA 303, 402; Minn. R. 7050.0210-.0212
	Toxicity Reduction Evaluations	0.1	x	x	0.1	40CFR131; CWA 308; Minn. Statute Ch. 115
	Nondegradation and Variance Requests	0.7	x	x	0.7	40CFR131; CWA 303; Minn. R. 7050.0180-.0190
	Other	0.1				
Ambient WQ Monitoring		5.4			1.1	
	Reference Site Monitoring	0.5				CWA 106
	Fixed Station Monitoring	1.1	x		1.1	CWA 305
	Random-Site Monitoring	0.5				CWA 305
	Longitudinal Integrated Assessments	0.5				CWA 303
	Lake Monitoring	0.8				CWA 314
	Toxics Assessments	1.4				CWA 304
	Other	0.6				Minn. Stat. 115.01; Minn R. 7050.02
Administrative/Management		4.7			2.4	
		4.7			2.4	50% Management/Supervision
TOTAL WQ, STANDARDS, AND MONITORING ACTIVITIES		18.9			12.0	

Training and Assistance Activity Analysis						
	Activity	FTEs	Fed	State	Base	Comments
Training Program		**3.4**			**3.4**	
	Develop training	1.4		x	1.4	CWA 104; Minn. Statute 116.41
	Supply/conduct training	2.0		x	2.0	Minn. Statute 115.03
Certification Program		**1.0**			**1.0**	Minn. Statute 115.7
	Certify WWT Operators	1.0	x	x	1.0	Minn Statute 115.7; Minn. Rule 9400.12
Technical Assistance		**2.0**			**2.0**	
	On-the-job Training Assistance	1.6		x	1.6	CWA 104: Minn. Rule 116.41
	O & M	0.4		x	0.4	Minn. Rule 7077.02
SRF		**1.0**			**1.0**	
	Administration	1.0		x	1.0	Minn. Statute 116.16
Annual Planning and Evaluation Survey (APES)		**1.0**			**1.0**	
		1.0		x	1.0	Minn. Statute 115.03
Admin/Mgmt		**2.7**			**1.4**	
		2.7			1.4	
TOTAL TRAINING ACTIVITIES		**11.1**			**9.8**	

Exhibit B

Benchmarking Survey Data

I. General

1. Does your state have delegation for ...

	NPDES	Pretreatment	Sludge
Colorado	YES	NO	NO
Connecticut	YES	YES	YES
Indiana	YES	NO	NO
Kentucky	YES	YES	NO
Maryland	YES	YES	NO
Massachusetts	NO	NO	NO
Michigan	YES	YES	NO
Minnesota	YES	YES	NO
Montana	YES	NO	NO
North Carolina	YES	YES	NO
Ohio	YES	YES	NO
Oregon	YES	YES	NO
Washington	YES	YES	NO
X State	YES	YES	NO
Y State	YES	NO	NO
Z State	YES	YES	NO
YES	15	11	1
NO	1	5	15
No Response	0	0	0

2. Do you issue state permits for discharges to groundwater and land application?

Colorado	YES
Connecticut	YES
Indiana	YES
Kentucky	YES
Maryland	YES
Massachusetts	YES
Michigan	YES
Minnesota	YES
Montana	YES
North Carolina	YES
Ohio	NO
Oregon	YES
Washington	YES
X State	YES
Y State	YES
Z State	YES
YES	15
NO	1
No Response	0

I. General

3. Does your state have a statute or rule which requires both a permit and agency approval of plans and specifications before construction can begin on a waste treatment facility?

Colorado	Municipal
Connecticut	Both
Indiana	Both
Kentucky	Both
Maryland	Municipal
Massachusetts	Both
Michigan	Municipal
Minnesota	Both
Montana	Both
North Carolina	Both
Ohio	Both
Oregon	Both
Washington	Both
X State	Both
Y State	Both
Z State	Both

4. Does your state have any other unique statutes or rules which impact the level of resources in your permitting program?

Colorado	YES
Connecticut	YES
Indiana	NO
Kentucky	YES
Maryland	NO
Massachusetts	YES
Michigan	YES
Minnesota	NO
Montana	YES
North Carolina	YES
Ohio	NO
Oregon	NO
Washington	YES
X State	YES
Y State	YES
Z State	NO
YES	10
NO	6
No Response	0

I. General

5. Does your state set its own surface water quality standards?

Colorado	YES
Connecticut	YES
Indiana	NO
Kentucky	YES
Maryland	YES
Massachusetts	YES
Michigan	YES
Minnesota	YES
Montana	YES
North Carolina	YES
Ohio	YES
Oregon	YES
Washington	YES
X State	YES
Y State	YES
Z State	YES
YES	15
NO	1
No Response	0

a. Do you rely exclusively on federal criteria?

Colorado	NO
Connecticut	NO
Indiana	YES
Kentucky	NO
Maryland	NO
Massachusetts	NO
Michigan	NO
Minnesota	NO
Montana	NO
North Carolina	NO
Ohio	NO
Oregon	NO
Washington	NO
X State	NO
Y State	NO
Z State	NO
YES	1
NO	15
No Response	0

II. Process
A. Permitting

1. How many point source permits does your state have overall management responsibility for? Please provide by category (as appropriate) in the chart below.

	Major Industrial NPDES	Minor Industrial NPDES	State Industrial Permits	General Industrial Permits	Major Municipal NPDES (>1MGD)	Minor Municipal NPDES (< 1MGD)	State Municipal Permits	General Municipal Permits	Total Industrial Permits	Total Municipal Permits	Total General Permits	Total Permits
Colorado	37	250		420	70	270		40	707	380	460	1087
Connecticut	56	217	490	2000	64	22	12	0	2763	98	2000	2861
Indiana	66	596	8	194	110	832	71		864	1013	194	1877
Kentucky	59	935		7414	63	187	1260	313	8408	1823	7727	10231
Maryland	42	580	265		56	330	80		887	466	0	1353
Massachusetts	60	500		50	99	27			610	126	50	736
Michigan	91	1091		275	92	451		0	1457	543	275	2000
Minnesota	26	353	53	190	53	596	33	61	622	743	251	1365
Montana	19	130	35	450	26	85		30	634	141	480	775
North Carolina	100	1332		1293	139	170		4588	2725	4897	5881	7622
Ohio	119	1355		5	180	1300		0	1479	1480	5	2959
Oregon	24	117	83	2821	49	162	308	74	3045	593	2895	3638
Washington	40	204	269	1138	45	212	57	0	1651	314	1138	1965
X State	56	500	340	1500	82	480	133	15	2396	710	1515	3106
Y State	87	1547	626	315	181	473	374	125	2575	1153	440	3728
Z State	26	201	0	93	42	293	0	0	320	335	93	655
Mean	57	619	217	1211	84	368	233	404	1946	926		2872
Median	56	500	174	420	67	282	76	30	1468	568		1983

II. Process
A. Permitting

2. How many permits did your division issue/reissue or modify during your 1994 fiscal year? Please provide by category (as appropriate) in the chart below.

Participating State	Major Industrial NPDES	Minor Industrial NPDES	State Industrial Permits	General Industrial Permits	Major Municipal NPDES (>1MGD)	Minor Municipal NPDES (< 1MGD)	State Municipal Permits	General Municipal Permits	Total Industrial Permits	Total Municipal Permits	Total Permits
Colorado	5	71		233	3	67		21	309	91	400
Connecticut	10	10	100	800	10	10	0	0	920	20	940
Indiana	1	13	0	146	6	105	1		160	112	272
Kentucky	8	251		497	14	58	173	27	756	272	1028
Maryland	10	108	32		9	114	24		150	147	297
Massachusetts	5	5			15	5			10	20	30
Michigan	40	121		188					349	0	349
Minnesota	8	84		22	11	111			114	122	236
Montana	3	22	6	345	15	35			376	50	426
North Carolina	38	426	1467	140	45	56	445	2201	2071	2747	4818
Ohio	23	230		1	65	220			254	285	539
Oregon	2	18	11	319	6	15	36		350	57	407
Washington	0	26	39	246	6	28	8	0	311	42	353
X State	6	25	25	1000	12	105	22	100	1056	239	1295
Y State	34	244	28	127	53	161	24	82	433	320	753
Z State	5	22	0	97	10	23	0	0	124	33	157
Mean	12	105	171	297	19	74	73	304	484	285	769
Median	7	49	27	211	11	58	23	24	330	102	404

II. Process
A. Permitting

3. Please estimate the average elapsed time (in weeks) it takes to issue a permit from the time an application is received to the time the permit is issued?

	New Industrial Construction	Major Modifications Industrial	Reissued Industrial Permits	New Municipal Construction	Major Modification Municipal	Reissued Municipal Permits	Average Weeks to Issue/ Reissue Industrial	Average Weeks to Issue/ Reissue Municipal	Overall Average Weeks to Issue/ Reissue
Colorado	30	30	35	26	20	35	32	27	29
Connecticut	26	26	26	26	26	26	26	26	26
Indiana	20	45	150	20	45	150	72	72	72
Kentucky	26	26	26	26	26	26	26	26	26
Maryland	26	26	26	26	26	26	26	26	26
Massachusetts	26	26	26	26	26	26	26	26	26
Michigan	26	17	52	26	17	52	32	32	32
Minnesota	40	24	80	32	24	80	48	45	47
Montana	24	24	18	24	24	18	22	22	22
North Carolina	24	24	24	24	24	24	24	24	24
Ohio	30	20	30	30	20	30	27	27	27
Oregon	85			140			85	140	113
Washington	24	20	24	32	20	24	23	25	24
X State	52	35	60	52	35	35	49	41	45
Y State	21	17	27	21	17	27	22	22	22
Z State	12	12	10	10	12	10	11	11	11
Mean	31	25	41	34	24	39	34	37	36
Median	26	24	26	26	24	26	26	26	26

II. Process
A. Permitting

4. Please estimate the average amount of staff effort in hours needed to issue a single permit.

	New Industrial	Major Industrial Mods	Reissued Industrial	New Municipal	Major Municipal Mods	Reissued Municipal	Avg. Hours to Issue New	Avg. Hours to Issue Major Mods	Avg. Hours to Reissue	Average Hours (aggregate)
Colorado	60	20	65	50	8	55	55	14	60	43
Connecticut										
Indiana	20	25	40	20	25	40	20	25	40	28
Kentucky	160	120	60	160	120	60	160	120	60	113
Maryland	165	150	135	138	125	113	152	138	124	138
Massachusetts	20	10	10	20	10	10	20	10	10	13
Michigan	100	80	60	100	80	60	100	80	60	80
Minnesota	1000	410	107	800	425	140	900	418	124	480
Montana	85	62	62	85	62	62	85	62	62	70
North Carolina	70			70			70			70
Ohio	240	75	260	240	75	220	240	75	240	185
Oregon	750	120	250				750	120	250	373
Washington	350	200	150	400	240	180	375	220	165	253
X State	200	60	130	100	40	100	150	50	115	105
Y State	30	30	30				30	30	30	30
Z State	40	45	35	30	40	30	35	43	33	37
Mean	219	101	100	170	104	89	209	100	98	135
Median	100	69	64	100	69	61	100	69	61	80

II. Process
A. Permitting

5. Please estimate program staffing levels (in full time equivalents) assigned to each permitting category.

	Industrial	Municipal	General/ Other	Total Permitting
Colorado	4	3	4.6	11.6
Connecticut	27	2	3	32
Indiana	14	15		29
Kentucky	12	13	4	29
Maryland	10	9	1	20
Massachusetts	1	3	0.25	4.25
Michigan	33	7		40
Minnesota	13	21	1	35
Montana	1.5	1.5	0.5	3.5
North Carolina	20	10	17	47
Ohio			64	64
Oregon	40	20		60
Washington			26	26
X State	--	--	--	59
Y State	10	11	11	32
Z State	5	6	1	12
Mean	14	9	10	29
Median	12	9	3	29

Permitting includes: 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. 1 FTE=2,080 working hours.

6. Please estimate your current permit backlog number of expired permits plus applications for new or modified permits.)

Colorado	200
Connecticut	700
ndiana	1045
Kentucky	300
Maryland	120
Massachusetts	250
Michigan	1100
Minnesota	467
Montana	60
North Carolina	127
Ohio	1500
Oregon	208
Washington	393
X State	932
Y State	954
Z State	458
Mean	551
Median	426

II. Process
A. Permitting

7. Does your permitting process provide the permit applicant with an opportunity to review the draft prior to Public Notice?

Colorado	NO
Connecticut	YES
Indiana	YES
Kentucky	YES
Maryland	YES
Massachusetts	YES
Michigan	YES
Minnesota	YES
Montana	YES
North Carolina	NO
Ohio	NO
Oregon	YES
Washington	YES
X State	YES
Y State	YES
Z State	NO
Yes	12
No	4
No Response	0

8. Please estimate the percentage of permittees receiving pre-application assistance prior to their submittal of a permit application.

	New Construction	Existing Facilities
Colorado	5	10
Connecticut	20	20
Indiana	75	40
Kentucky	90	10
Maryland	30	20
Massachusetts	75	75
Michigan	20	10
Minnesota	90	5
Montana	50	5
North Carolina	75	100
Ohio	80	10
Oregon	100	65
Washington	80	10
X State	90	50
Y State	30	10
Z State	20	10
Mean	58	28
Median	75	10

II. Process
B. Compliance / Enforcement

1. Please estimate the number of inspections Performed in 1994.

	Industrial Pretreatment Audits	Industrial Recon Inspections	Industrial CMS	Industrial CMS with Sampling	Industrial Other	Municipal Pretreatment Audits	Municipal Recon Inspections	Municipal CMS	Municipal CMS with Sampling	Municipal Other	Total Inspections
Colorado	15	100	90			11	150	210			576
Connecticut		350	625	410			85				1470
Indiana		233	35	2	44	17	1009	67	44	19	1470
Kentucky											3320
Maryland			1120					1330			2450
Massachusetts		80	80	5		10	100	100	10		385
Michigan	0	303	40	53	16	20	195	75	94	81	877
Minnesota		29	62	5		8	163	162	8		437
Montana		10		20			10		25		65
North Carolina	50		457	396		20		187	113		1223
Ohio	0	17	75	22	77	18	14	136	51	221	631
Oregon	20			30	1957						2007
Washington				45	425					420	890
X State	75	10	250	50		6	10	300	100		801
Y State		230	70	60		9	330	60	120		879
Z State	59		198	41				123	22		443
Mean	31	136	259	88	504	13	207	250	59	185	1120
Median	20	90	85	41	77	11	125	136	48	151	878

II. Process
B. Compliance / Enforcement

2. Please estimate program staffing levels (in full time equivalents) assigned to each compliance/enforcement category.

	Industrial	Municipal	General Other	Total C/E
Colorado	3.5	3.5		7
Connecticut	10	3	0	13
Indiana	25	24		49
Kentucky	28	31.5	9.5	69
Maryland	8.9	7.9		17
Massachusetts	4	4		8
Michigan	45.5	9.5		55
Minnesota	13	25		38
Montana	0.5	0.5	0.1	1
North Carolina	12	33		45
Ohio			60	60
Oregon	5	3		8
Washington				24
X State	--	--	--	9
Y State	18	23	15	56
Z State	3.5	3.5		7
Mean	13	13	15	30
Median	11	9	7	25

Compliance/enforcement includes: conducting inspections, evaluating compliance, initiating enforcement actions in cases of serious non-compliance, and providing administrative and technical assistance.

3. What is your scheduling criteria for inspections? (annually, every 2 years, every 3 years, other)

Colorado	Other
Connecticut	Other
Indiana	Bi-annually
Kentucky	Annually
Maryland	Semi-Annually
Massachusetts	Other
Michigan	Other
Minnesota	Tri-annually
Montana	Other
North Carolina	Other
Ohio	Other
Oregon	Bi-annually
Washington	Other
X State	Bi-annually
Y State	Annually
Z State	Tri-annually
Annually	2
2 Yeasr	3
3 Years	2
Other	9

II. Process
B. Compliance / Enforcement

4. Please estimate the number of industrial enforcement actions taken in 1994.

	Enforcement Letter Industrial	NOV Industrial	Unilateral Agreement Industrial	Stip Agreement Industrial	Other Industrial	Industrial Enforcement Actions
Colorado		4				4
Connecticut	0	282	63	19		364
Indiana	46	5	8			59
Kentucky						
Maryland	250	50	4	4		308
Massachusetts	20	10	10	2		42
Michigan	500	9	1	5		515
Minnesota		7	8	3		18
Montana	48	1	0	0		49
North Carolina	30	1560		28		1618
Ohio		2650	25	32		2707
Oregon		25		23	32	80
Washington		55	84	57		196
X State	60	30	10	5		105
Y State	86		17	14		117
Z State		51	6	2		59
Mean	116	339	20	15	32	416
Median	48	28	9	5	32	105

II. Process
B. Compliance / Enforcement

4. (cont.) Please estimate the number of municipal enforcement actions taken in 1994.

	Enforcement Letter Municipal	NOV Municipal	Unilateral Agreement Municipal	Stip Agreement Municipal	Other Municipal	Municipal Enforcement Actions	Total Enforcement Actions
Colorado		10				10	14
Connecticut							364
Indiana	87	13	28		13	141	200
Kentucky							1918
Maryland	250	260	1	36		547	855
Massachusetts	40	50	15	8		113	155
Michigan	100	20		3		123	638
Minnesota		15	7	3		25	43
Montana	48	1	0	0		49	98
North Carolina	114	643		33		790	2408
Ohio							2707
Oregon							80
Washington							196
X State	60	30	10	5		105	210
Y State	57		17	6		80	197
Z State		41	1	1		43	102
Mean	95	108	10	11	13	184	637
Median	74	25	9	5	13	105	199

II. Process

C. Water Quality Standards

1. Please estimate program staffing levels (in full time equivalents) assigned to each water quality program area.

	Industrial	Municipal	General/ Other	TOTAL
Colorado	4	2	5.8	12
Connecticut	4	1	0	5
Indiana	25	25		50
Kentucky			5	5
Maryland	14	13		27
Massachusetts	1	4		5
Michigan			10	10
Minnesota	10.7	9.1		20
Montana			0.9	1
North Carolina	41	23		64
Ohio			37	37
Oregon			4	4
Washington				0
X State			64	64
Y State	2	2	6	10
Z State	1	1		2
Mean	11	9	12	18
Median	4	4	6	10

Water Quality program activities include: developing rules and rulemaking, ambient water quality standard determinations, effluent limit determinations, and ambient water quality monitoring.

2. In 1994, how many new numerical water quality standards were:

	Proposed Numerical Standards	Finalized Numerical Standards
Colorado	51	50
Connecticut	0	0
Indiana	0	0
Kentucky	0	0
Maryland	0	0
Massachusetts	0	0
Michigan	0	0
Minnesota	8	6
Montana	0	0
North Carolina	2	0
Ohio	0	0
Oregon	0	0
Washington	0	0
X State	2	1
Y State	3	0
Z State	0	0
Mean	4	4
Median	0	0

II. Process
C. Water Quality Standards

3. In 1994, how many new narrative water quality standards were proposed or finalized?

	Proposed Narrative Standards	Finalized Narrative Standards
Colorado	1	1
Connecticut	0	0
Indiana	0	0
Kentucky	0	0
Maryland	3	3
Massachusetts	0	0
Michigan	0	0
Minnesota	1	1
Montana	0	0
North Carolina	0	0
Ohio	0	0
Oregon	0	0
Washington	0	0
X State	0	0
Y State	0	0
Z State	0	0
Mean	0	0
Median	0	0

4. How many full time equivalents were involved with water quality standards in your state in 1994?

	Numerical Water Quality Standards	Narrative Water Quality Standards	TOTAL in Standards
Colorado			2.5
Connecticut	3	2	5
Indiana	1	1	2
Kentucky			
Maryland	3	3	6
Massachusetts	0.25	0.25	0.5
Michigan	0.2	1	1.2
Minnesota	3	0.1	3.1
Montana		0.4	0.4
North Carolina	1	1	2
Ohio			2.5
Oregon	3		3
Washington	1.9	0.2	2.1
X State	2		2
Y State	2	0.2	2.2
Z State	1	1	2
Mean	2	1	2
Median	2	1	2

II. Process
C. Water Quality Standards

5. How many new effluent limit determinations were made/performed in your state during 1994 in each of the following permitting areas?

	New Facilities	Modified for Existing Facilities	Reissued for Existing Facilities	Total Effluent Limits
Colorado	17	50	45	112
Connecticut	2	0	10	12
Indiana	24		47	71
Kentucky	75	25	250	350
Maryland	15	30	252	297
Massachusetts	5	2	10	17
Michigan				130
Minnesota				181
Montana	10	5	50	65
North Carolina	70	30	200	300
Ohio	3	88		91
Oregon				
Washington				
X State	3	10	40	53
Y State	5	5	120	130
Z State	8	6	79	93
Mean	20	23	100	136
Median	9	10	50	103

6. Please indicate the total number of ambient water quality sites monitored during 1994.

	# of Ambient Sites
Colorado	76
Connecticut	40
Indiana	200
Kentucky	90
Maryland	1350
Massachusetts	50
Michigan	140
Minnesota	91
Montana	18
North Carolina	350
Ohio	195
Oregon	670
Washington	244
X State	
Y State	375
Z State	15
Mean	260
Median	140

II. Process
C. Water Quality Standards

7. Do you have a mechanism for measuring and tracking the overall water quality in your state?

Colorado	YES
Connecticut	YES
Indiana	YES
Kentucky	YES
Maryland	YES
Massachusetts	YES
Michigan	YES
Minnesota	YES
Montana	YES
North Carolina	YES
Ohio	YES
Oregon	YES
Washington	YES
X State	YES
Y State	YES
Z State	YES
Yes	16
No	0
No Response	0

II. Process
D. Training and Assistance

1. Please estimate program staffing levels (in full time equivalents) assigned to training and technical assistance activities in each program area.

	Industrial	Municipal	General
Colorado	2.75	10.55	
Connecticut	2	3	0
Indiana	2	4	
Kentucky			11
Maryland			3
Massachusetts	0.5	1.5	
Michigan	2.5	3.5	9
Minnesota	0.6	9.4	
Montana	0.1	4	
North Carolina	1.5	1.5	3
Ohio		4	
Oregon		2	
Washington		3	
X State	--	--	10
Y State			3
Z State	0.5	6	
Mean	2	4	5
Median	2	4	3

Training and technical assistance activities include: operator training and certification programs State Revolving Fund (SRF) program management; Operations and Maintenance (O&M) manual reviews; and technical assistance.

2. Do you certify wastewater treatment operators?

If yes, how many operators were certified in 1994?

	Certification Required	# of Certified Operators
Colorado	YES	350
Connecticut	YES	
Indiana	YES	2800
Kentucky	YES	159
Maryland	YES	644
Massachusetts	YES	1500
Michigan	YES	1404
Minnesota	YES	779
Montana	YES	500
North Carolina	YES	1388
Ohio	YES	453
Oregon	YES	1600
Washington	YES	1900
X State	YES	3314
Y State	YES	540
Z State	YES	95
Mean		1162
Median		779

II. Process
D. Training and Assistance

3. What percent of wastewater treatment plants in your state have certified operators?

Colorado	80
Connecticut	98
Indiana	100
Kentucky	
Maryland	
Massachusetts	100
Michigan	80
Minnesota	92
Montana	100
North Carolina	90
Ohio	85
Oregon	80
Washington	100
X State	99
Y State	91
Z State	99
Mean	92
Median	95

4. How many training courses did you administer in 1994?

Colorado	32
Connecticut	0
Indiana	
Kentucky	5
Maryland	53
Massachusetts	36
Michigan	40
Minnesota	16
Montana	25
North Carolina	45
Ohio	0
Oregon	
Washington	0
X State	0
Y State	14
Z State	5
Mean	19
Median	15

II. Process
D. Training and Assistance

5. How many people attended these courses (total # in 1994)?

Colorado	500
Connecticut	
Indiana	
Kentucky	280
Maryland	1289
Massachusetts	1200
Michigan	1564
Minnesota	1700
Montana	650
North Carolina	900
Ohio	
Oregon	
Washington	0
X State	
Y State	277
Z State	100
Mean	769
Median	650

6. Do you charge a fee for attendance at training courses?
   a. If yes, what percentage of total training costs (including staff time) are covered by the attendance fee?

	Charge a Fee	% of Training Costs Covered
Colorado	YES	
Connecticut		
Indiana		
Kentucky	NO	
Maryland	YES	80
Massachusetts	YES	10
Michigan	YES	50
Minnesota	YES	40
Montana	YES	
North Carolina	YES	50
Ohio		
Oregon	NO	
Washington		
X State		
Y State	YES	54
Z State	YES	100
Mean		55
Median		50

II. Process
D. Training and Assistance

7. Do you provide on-the-job training and assistance for:

	Municipal	Industrial
Colorado	NO	NO
Connecticut	YES	NO
Indiana	YES	NO
Kentucky		
Maryland	YES	YES
Massachusetts	YES	NO
Michigan	YES	YES
Minnesota	YES	NO
Montana	YES	NO
North Carolina	YES	YES
Ohio	NO	NO
Oregon	YES	YES
Washington	YES	NO
X State	YES	YES
Y State	YES	YES
Z State	YES	NO
YES	13	6
NO	2	9
No Response	1	1

III. Program Costs / Funding

1. Please provide a breakdown of the annual costs for managing all of your point source permit program activities, e.g. all permitting, compliance/enforcement, water quality standards, and training and technical assistance.

	Direct Payroll & Benefits	Indirect Agency Charges	Non-Payroll Expense	Other	Total Budget
Colorado	$4,739,000	$980,000	$314,000		$6,033,000
Connecticut	$2,500,000	$892,000	$644,000		$4,036,000
Indiana	$7,115,353			$1,727,493	$8,842,846
Kentucky	$4,354,830	$1,682,706			$6,037,536
Maryland	$9,840,435	$275,125	$1,793,013		$11,908,573
Massachusetts	$520,000	$52,000	$5,200		$577,200
Michigan	$4,665,000	$718,000	$238,000		$5,621,000
Minnesota	$4,707,000	$1,506,000	$721,000		$6,934,000
Montana	$690,000	$138,000	$322,000		$1,150,000
North Carolina	$7,103,255	$564,180	$2,052,015	$5,669,832	$15,389,282
Ohio	$10,300,000	$2,400,000	$3,000,000		$15,700,000
Oregon				$5,000,000	$5,000,000
Washington	$7,700,000			$2,100,000	$9,800,000
X State					$17,248,189
Y State					
Z State	$522,000	$243,000	$43,000		$808,000
Mean					$7,672,000
Median					$6,037,536

III. Program Costs / Funding

2. What percentage of your program is funded from each of the following sources?

	% From State Funding	% From Federal Funding	% From Permit Fees	% From Other Funding
Colorado	23	50	27	
Connecticut	44	34	22	
Indiana	38	18	44	
Kentucky	85	15		
Maryland	60	29	8	2
Massachusetts	75	25		
Michigan	32	53	15	
Minnesota	49	18	27	
Montana	8	44	48	
North Carolina	27	32	27	15
Ohio	39	37	24	
Oregon	20	15	65	
Washington	5	2	93	
X State	45	15	40	
Y State				
Z State	20	80		
Mean	38	31	30	1

3. If fees are collected, do you have a fee system or structure that bases fees on pollutant loadings from the permitted facility?

Colorado	NO
Connecticut	YES
Indiana	NO
Kentucky	
Maryland	YES
Massachusetts	NO
Michigan	NO
Minnesota	NO
Montana	YES
North Carolina	NO
Ohio	NO
Oregon	NO
Washington	NO
X State	YES
Y State	NO
Z State	NO
YES	4
NO	11
No Response	1

III. Program Costs / Funding

4. Are enforcement fees/fines retained by your agency or are they returned to your state's general fund?

Colorado	NO
Connecticut	NO
Indiana	YES
Kentucky	NO
Maryland	YES
Massachusetts	NO
Michigan	NO
Minnesota	NO
Montana	NO
North Carolina	NO
Ohio	YES
Oregon	NO
Washington	NO
X State	NO
Y State	NO
Z State	NO
YES	3
NO	13
No Response	0

5. In 1994, what was the level of enforcement fees/fines collected by your agency?

Colorado	$120,000
Connecticut	$423,600
Indiana	$500,000
Kentucky	
Maryland	$1,099,320
Massachusetts	$50,000
Michigan	$567,490
Minnesota	$
Montana	$
North Carolina	$378,606
Ohio	$2,000,000
Oregon	$113,944
Washington	$662,900
X State	$600,000
Y State	$454,150
Z State	$7,500
Mean	$465,167
Median	$423,600

III. Program Costs / Funding

6. Do you administer any portion of the State Revolving Fund (SRF) program for your state?

Colorado	YES
Connecticut	YES
Indiana	YES
Kentucky	YES
Maryland	YES
Massachusetts	NO
Michigan	YES
Minnesota	YES
Montana	YES
North Carolina	
Ohio	NO
Oregon	YES
Washington	YES
X State	YES
Y State	YES
Z State	YES
YES	14
NO	1
No Response	1

7. What staffing levels (full time equivalents) are dedicated to administering SRF loans for municipal wastewater treatment dischargers?

Colorado	15
Connecticut	11
Indiana	24
Kentucky	7
Maryland	8
Massachusetts	15
Michigan	29
Minnesota	1
Montana	5.5
North Carolina	
Ohio	34.16
Oregon	11
Washington	6
X State	
Y State	
Z State	4
Mean	13
Median	11

III. Program Costs / Funding

8. Do you have any incentive programs for "good" permittees?

Colorado	NO
Connecticut	NO
Indiana	NO
Kentucky	NO
Maryland	NO
Massachusetts	NO
Michigan	YES
Minnesota	
Montana	YES
North Carolina	
Ohio	NO
Oregon	YES
Washington	NO
X State	NO
Y State	NO
Z State	NO
YES	3
NO	11
No Response	2

IV. Organizational

1. Do you have permit program staff working in regional offices?
   a. Total number of central office staff:
      Total number of regional staff:

	Permit Program Staff	Central Office Staff	Regional Office Staff	Total Office Staff
Colorado	YES	69	16	85
Connecticut	NO	42	0	42
Indiana	NO	158		158
Kentucky	YES	89	25	114
Maryland	NO	189		189
Massachusetts	NO	3	10	13
Michigan	YES	49	46	95
Minnesota	YES	97.5	5.5	103
Montana	NO	20	1	21
North Carolina	YES	155	79	234
Ohio	YES	165	31	196
Oregon	YES	28	40	68
Washington	YES	57	84	141
X State	YES	35	64	99
Y State	YES			
Z State	YES	11	1	12
Mean		78	31	105
Median		57	25	99

b. What activities are performed in the regional offices?

	Permitting	Compliance Enforcement	Water Quality Stds	Train & Tech Assist
Colorado	YES	YES	NO	YES
Connecticut	NO	NO	NO	NO
Indiana				
Kentucky	NO	YES	NO	YES
Maryland	NO	YES	NO	NO
Massachusetts	NO	YES	NO	NO
Michigan	YES	YES	NO	NO
Minnesota	YES	YES	YES	YES
Montana	NO	YES	NO	YES
North Carolina	NO	YES	NO	YES
Ohio	YES	YES	NO	YES
Oregon	YES	YES	NO	YES
Washington	YES	YES	NO	YES
X State	YES	YES	NO	YES
Y State	NO	YES	NO	YES
Z State	NO	YES	NO	NO
YES	7	14	1	10
NO	8	1	14	5
No Response	1	1	1	1

IV. Organizational

2. Are your permits drafted Manually or Electronically?

Colorado	Manually
Connecticut	Electronically
Indiana	Manually
Kentucky	Electronically
Maryland	Electronically
Massachusetts	Electronically
Michigan	Electronically
Minnesota	Electronically
Montana	Electronically
North Carolina	Electronically
Ohio	Manually
Oregon	Manually
Washington	Manually
X State	Electronically
Y State	Electronically
Z State	Manually

3. Do you use a computerized compliance and permit management system other than PCS?

Colorado	NO
Connecticut	YES
Indiana	YES
Kentucky	NO
Maryland	YES
Massachusetts	NO
Michigan	NO
Minnesota	NO
Montana	YES
North Carolina	YES
Ohio	YES
Oregon	YES
Washington	YES
X State	YES
Y State	YES
Z State	NO
YES	10
NO	6
No Response	0

IV. Organizational

4. Do you use a time reporting system?
   a. If yes, do you track time by major activity and/or subactivity?

Colorado	YES	YES
Connecticut	YES	YES
Indiana	NO	
Kentucky	YES	YES
Maryland	YES	YES
Massachusetts	YES	YES
Michigan	YES	YES
Minnesota	YES	YES
Montana	NO	
North Carolina	YES	YES
Ohio	YES	YES
Oregon	YES	YES
Washington	YES	YES
X State	YES	YES
Y State	YES	YES
Z State	YES	YES
YES	14	14
NO	2	0
No Response	0	2

5. Do you use basin planning to facilitate permit issuance and/or reissuance?

Colorado	NO
Connecticut	NO
Indiana	YES
Kentucky	NO
Maryland	NO
Massachusetts	YES
Michigan	YES
Minnesota	NO
Montana	NO
North Carolina	YES
Ohio	YES
Oregon	YES
Washington	YES
X State	NO
Y State	YES
Z State	YES
YES	9
NO	7
No Response	0

6. Please circle any services that your permittees want or need and that they are willing to pay a fee for.
   a. expedited permits
   b. tech. assistance/engineering review
   c. variance requests
   d. environmental reviews
   e. other

Colorado	A
Connecticut	
Indiana	A and B
Kentucky	A, B, C, and D
Maryland	
Massachusetts	Most hire consultants to negotiate with US EPA & MADEP
Michigan	
Minnesota	
Montana	
North Carolina	A, B, and Engineering Alternatives Analysis
Ohio	
Oregon	B
Washington	
X State	They want all of these, but we have never asked them if they would pay.
Y State	A
Z State	A

Exhibit C

Process Review and Focus Group Summaries

PERMITTING
Focus Group Opportunity Matrix

	Opportunity	Alexandria	Duluth	St. Paul
1.	Lengthen/extend the time frame of its permits, i.e. 10 year permits.	X	X	X
2.	Review/revise the permit application package, i.e. simpler, clearer requirements, more and better information, template.	X	X	X
3.	Expedite and/or eliminate "technical reviews", i.e. hold the permittee more accountable for technical and engineering aspects of their permit application.	X		X
4.	Expedite permits for a fee.	X	X	
5.	Offer incentives to reduce turnover of permit staff.	X	X	
6	Issue more General Permits.		X	X
7.	Institutionalize a system or mechanism to promote the exchange/flow of information and feedback between the applicant and PCA during the permit application process.			X
8.	Offer technical assistance and training workshops to the public and environmental organizations.			X
9.	Set Pollution Prevention as a higher priority.			X
10.	Involve the public in the process earlier.			X
11.	Build more intra- and interagency cross function into the permitting process.			X
12.	Offer continuing education on new technology issues to PCA staff.		X	
13.	Develop application packages for specific industries and/or facility types.		X	
14.	Issue cross/multi-media permits.		X	
15.	Issue "simpler" Permits, i.e. eliminate boilerplate and "old baggage" etc.		X	
16.	Implement a stronger, more timely environmental review process.		X	
17.	Establish utilization goals for permit staff resources.		X	
18.	Evaluate the timeliness and effectiveness of decisionmaking processes.		X	
19.	Use more/better long term planning, including more use of Env. Quality Board recommendations		X	
20.	Build more variety into permit staff assignments in an effort to reduce turnover.	X		
21.	Institutionalize a Customer Satisfaction Survey to evaluate its performance.	X		
22.	Decentralize/regionalize the permitting function.	X		
23.	Shorten the Public Comment period, i.e. from one month to two weeks.	X		

COMPLIANCE and ENFORCEMENT
Focus Group Opportunity Matrix

	Opportunity	Alexandria	Duluth	St. Paul
1.	Institutionalize a system or mechanism to promote the exchange/flow of information and feedback between the permittee and PCA.		X	X
2.	More balance between formal (announced) and informal (unannounced) inspections.		X	X
3.	Systemize transmission, exchange, and maintenence of data and information, i.e. electronic data information (EDI).		X	X
4.	More use of Administrative Penalty Orders (APOs).		X	X
5	Use existing tools, including enforcement matrix, more effectively and consistently.			X
6.	Raise APO ceiling.		X	
7.	Allow greater recognition of opinions for evaluating penalties.		X	
8	Perform more split sampling.		X	
9.	Develop an Inspection Checklist to help permittees' with self reporting.		X	
10.	Coordinate (more) compliance/inspection processes.		X	
11.	Revise inspection scheduling criteria.		X	
12.	Computerize inspection forms for more timely dissemination of inspection results.		X	
13.	Provide more timely access to data (other than from PCS.)		X	
14.	Perform more multimedia/general inspections.		X	
15.	Eliminate visits unless there is a problem.	X		
16.	Use Annual Planning Surveys and Discharge Monitoring Reports to trigger inspections.	X		
17.	Tie inspections to performance.	X		
18.	Provide training to inspectors.	X		

WATER QUALITY STANDARDS
Focus Group Opportunity Matrix

	Opportunity	Alexandria	Duluth	St. Paul
1.	Establish state-wide benchmarks for water quality.			X
2.	Align WD division activities with objectives and benchmarks.			X
3.	Merge good science with acceptable risk for reasonable, risk-based decisionmaking.			X
4.	Eliminate unfunded mandates.			X
5.	Align/merge cross-media Water Quality planning activities between DNR and MPCA.			X
6.	Evaluate need for triennial standards review.		X	
7.	Review waste load allocation by permittee.		X	
8.	Link data management with Right-to Know program/initiatives.		X	
9.	Seek funding for Ambient WQ and WQ Standards activities from Non-Point Source program.		X	
10.	Look at inter-basin transfer issue, coordinate with Point Source Program.		X	
11.	Use federal limits only.	X		
12.	Set standards for fixed number of years or life of facility when building plant, i.e. grandfathering.	X		
13.	Look at statistical classifications of exceedances, example: South Dakota groundwater.	X		

TRAINING and ASSISTANCE
Focus Group Opportunity Matrix

	Opportunity	Alexandria	Duluth	St. Paul
1.	Evaluate the costs, benefits, and value of training and assistance provided.	X	X	X
2.	Evaluate additional training needs, including need for both more specific training (versus the general training currently provided) and more advanced training (for new technologies, etc.)	X		X
3.	Establish benchmarks for training and use best available training technology.			X
4.	Privatize the training function (model after Air Quality program.)		X	
5.	Evaluate who should pay for the training, i.e. should industry subsidize training aimed mainly at municipal operators?		X	
6.	Offer targeted training to smaller industries (look at Hazardous Waste program.)		X	
7.	Update training manuals.	X		
8.	Train MPCA staff.	X		

ST. PAUL FOCUS GROUP

October 13, 1995

Key Facilitator: Gary Rodrigues, Arthur Andersen LLP

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PERMITTING (St. Paul)

Strengths	Weaknesses
• Forces treatment • Strong philosophy • Openness of the process • Effluent limits, i.e. first part of permit format good, but requirements are buried • 180 day advance • Prioritization	• MPCA doesn't follow time req'ts – "EPA made us do it" - poorly defined roles and accountability for requirements • Timeliness • Prioritization • Agency cross function • User friendliness

Opportunities

- ♦ Feedback loop
- ♦ More general permits
- ♦ Eliminate technical review - hold permitee accountable
- ♦ Time frame of permit
- ♦ Let public in earlier
- ♦ Technical assistance for public/workshops
- ♦ Public training
- ♦ Prioritize Pollution Prevention
- ♦ Inter/intra agency cross function
- ♦ More clearly defined permit requirements

COMPLIANCE AND ENFORCEMENT (St. Paul)

Strengths	Weaknesses
• Follow up on big violations • Appropriate penalties on big violators - sizable stips • People in regions • Inspections improving • Citizen suit enforcements • Technical assistance	• Don't use matrix all time • Informal action consistency • Follow through on noncompliance • No deterrence with informal • Not enough APOs, low $$ amount • Fines continue during approved upgrade construction, i.e. "Catch 22" • Late reviews (DMR) • Perception of importance to agency • Better use of automation • Compliance backlog • Info. available to appropriate individuals (regional vs. central office) • Need more on-site visits • Lack of EDI • More sampling inspections • Technical assistance not available to citizens • Program is designed for permittee not citizens - does not include all stakeholders

Opportunities

- Use enforcment matrix
- Feedback loop
- More use of APOs
- Effective use of tools (standardization consistent)
    - Balanced formal vs. informal

WATER QUALITY STANDARDS (St. Paul)

Strengths	Weaknesses
• Basin planning - better able to tell quality • Lab certification self monitoring	• Ambient monitoring is deficient • Poor/lack of state wide-benchmarks for WQ • Cross media WQ planning between DNR/MPCA • Reasonable, risk based limits/decision making • Need unmeasurable/treatable cost benefit analysis

Opportunities

- ♦ Environmental benchmarks
- ♦ Align activities with objectives/benchmarks
- ♦ Look at good science vs. acceptable risk
- ♦ Unfunded mandates
- ♦ Align/merge WQ activities with other similar state agency functions

TRAINING AND ASSISTANCE (St. Paul)

Strengths	Weaknesses
• Good Public Relations • Good value • Strong certification program • MPCA controlled • Good interaction/networking opportunities • Good coverage • Training and certif. combined • Strong technical expertise • Low staff turnover in training • Proactive, i.e. "ounce of prevention" • Current	• Underpriced • Not state of art training technology • Out dated training materials • Not advanced enough • Lack of industry/facility specific training

Opportunities

- ♦ Evaluate costs, benefit, value
- ♦ Benchmark, utililize best available training technology
- ♦ More specific training topics
- ♦ More advanced training subjects

OTHER OPPORTUNITIES (St. Paul)
• Use more General Permits • Length of permit by classification • PCS staff/salary assessment • Organizational assessment/ "jobs for life" • Staff retention/turnover • Activity analysis - value • Agency accountability • Technical qualifications • Program redundancy • Technical review • Electronic data input (EDI) • Decision making • Multimedia • Unfunded mandates • Strategic stakeholder participation • Pollution prevention • Reasonable risk based rulemaking • Deregulate where possible

DULUTH FOCUS GROUP

October 12, 1995

Key Facilitator: Ron Van Epps, Arthur Andersen LLP

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PERMITTING (Duluth)

Strengths	Weaknesses
• Good people, dedicated/ hardworking people/technically competent • Willingness to put forth extra effort (particularly in Water Quality) • Good buffer with EPA • More stable staff situation	• Cross media problem • Decision making • Permit package (old baggage) ⇨ streamline/simplify • Lack of expertise in new technology areas • Timeframes for permit renewals • Extra effort • Need more proactive assistance (anticipate instead of react) • Standard setting process/not enough public involvement in other negotiations (stips/variances) • Timeliness of permit issuance • Permit application package

Opportunities

- ♦ Continuing education on new technology (PCA staff)
- ♦ 10 yr. permits
  - ◊ Permit Classification
- ♦ More general permits
- ♦ Review/revise permit application (more information)
- ♦ Industry (specific) applications
- ♦ Expedited permits/fees
- ♦ Cross-media permits
- ♦ Facility permitting
- ♦ Permits simplified
- ♦ Stronger, more timely environmental review program/process
- ♦ Permit resources utilization goals
- ♦ Incentives for PCA staff
- ♦ Better long term planning state/agency use of EQB
- ♦ Evaluate decisionmaking process

COMPLIANCE AND ENFORCEMENT (Duluth)

Strengths	Weaknesses
• Stip agreement (can be a strength) • Move to be more consistent through use of compliance management guide and enforcement forum process • Like balanced inspections (unannounced vs. announced) • Regionalization • Use of APO's to settle enforcement actions	• Stips are not open enough • Compliance monitoring (self reporting) • Coordination/timing C & E Inspections • Timeliness of inspection reports • Not enough industrial inspectors • Announced inspections (balance) • Decisionmaking in St. Paul • No feedback loop on ambient monitoring • APO (review use/process) • Too much data handling (multiple)

Opportunities

- ♦ Electronic data information (EDI) transmission
- ♦ Increased use of APO's vs. Stip's
- ♦ Consider concept of raising APO ceiling ⇨ (longer to negotiate)
- ♦ Greater recognition of opinions for evaluating penalties
- ♦ More split sampling
- ♦ Develop inspection checklist
- ♦ Ability to coordinate compliance/inspection process
- ♦ Feedback loop on results of ambient water quality
- ♦ Increased use of checklist(s) to speed-up inspection reports
  - ◊ Computerize inspection forms
- ♦ Consider revisions to inspection scheduling (criteria: municipal/industrial and major/minor)
- ♦ More timely access to data (other than PCS)
- ♦ Look at balance of announced versus unannounced inspections
- ♦ More multimedia inspections/more generalist

WATER QUALITY STANDARDS (Duluth)

Strengths	Weaknesses
• Ambient WQ monitoring is occurring • "Rule revision" is a public process	• Availability of Water Quality data (continue to move forward) • Triennial review • Use community "right to know" (applies across all areas) • No agency support /funding for envir. oversight groups/initiatives • Lack of effluent limit consistency within/across industries and processes • WQ variance process is questionable

Opportunities

- ♦ Evaluate timing of standards review (triennial)
- ♦ Waste load allocation by permittee (review by PCA or outsource)
- ♦ Data management, link to Right-to-Know
- ♦ Non-point source should fund Ambient Water Quality & WQ Standards
- ♦ Look at Inter Basin transfer issue --> coordinate with Point Source

TRAINING AND ASSISTANCE (Duluth)

Strengths	Weaknesses
• Agency provided training more readily facilitates feedback (loop) • Agency control • Certification process	• Training subsidized by industry • Not self sufficient • Duplication of effort (community colleges etc.) • Cost effectiveness

Opportunities

- ♦ Privatize training (model after Air Quality)
- ♦ Evaluate who should pay
- ♦ Look at usefulness/duplication of training
- ♦ Don't subsidize across municipal and industrial.
- ♦ Offer targeted training to smaller industries (look at hazwaste program)

OTHER OPPORTUNITIES (Duluth)

• Structured plan/updates/measures
• Feedback to stakeholders
• Address blackhole projects
  – Stronger environmental review/assess
  – Training on new technology
  – General fund plays significant role (need to understand legislative impact and accountability)
• Better communication within agency, re: initiatives
• Improve communication (broader issues) between PCA/stakeholders including activists
• Coordinate billing to facilities (DOH, DNR, PCA (air, hazwaste, water) one bill/all media)
• PCA should "respectfully" challenge unfunded mandates (EPA) and directives
  – Gen'l fund plays role (understand legislative impact accountability)
• Maintain balanced funding source (include use of Gen'l Fund)
• More effective time reporting
• Cost recovery on black holes
• More clearly incorporate Great Lakes initiative (zero discharge) into process ⇨ persistent toxics

ALEXANDRIA FOCUS GROUP

October 11, 1995

Key Facilitator: Ron Van Epps, Arthur Andersen LLP

ALEXANDRIA FOCUS GROUP PARTICIPANTS

Name	Organization	Telephone
Dick Higgins	Hutchinson Technology	612-587-1950
Jeff Muehler	Breckinridge Public Utilities	218-643-4681
Jim Nelson	People Service	612-289-1912
Bev Eckmann	Otter Tail Power Company	218-739-8249
Chris Fisher	Elf Atochem	507-583-6641

PERMITTING (Alexandria)

Strengths	Weaknesses
• Industrial turnover low (stable) • Permit writer/one source point of contact • Facility visits (whenever there's an issue) • Flexibility and willingness to work with facility	• Municipal turnover • Support staff (technical) • More stringent state regulations • Responsiveness to questions (timeliness) • Field people can't make recommendations/training to make recommendations ⇨ Empowerment needed • Use of outdated data • Plans & Specs review very slow • New constructions too slow

Opportunities

- Length of permit ... 10 yr./lifetime
  - threshold
  - classifications
- Incentives for staff
- More variety in permit staff assignments
- Classifications/prioritization for modifications
  - 2 to 3 months goal
- Comment period 1 month ⇨ 2 weeks (Federal requirement)
- Company build permit ⇨ template would be helpful
- Speedier Facility Plan and Plans & Specifications reviews
- Customer satisfaction survey (service/relationship)
- Decentralize/regionalize Permitting function
- Fast track permitting program
  - Wisconsin ... $1,000 fee

COMPLIANCE AND ENFORCEMENT (Alexandria)

Strengths	Weaknesses
• Cooperative inspectors ... assistance/time • Clear line between C & E • Enforcement is fair (if you cooperate) • Enforcement offers thorough explanation	• C & E turnover (getting better?) • Inexperienced hires (value/quality of inspectors) • Frequency of inspections

Opportunities

- ♦ No visit unless problem
- ♦ Use Annual Planning Survey or Discharge Monitoring Report to trigger inspections
- ♦ Recordkeeping/tracking (DMR) data input
- ♦ (Agency developed) electronic data submission
- ♦ Reevaluate when inspections should be done (consider tying to performance)
  - ◊ Majors 1 yr to ⇨ less frequent
  - ◊ Minors 3 yrs to ⇨ less frequent
- ♦ Training/ OJT

WATER QUALITY STANDARDS (Alexandria)

Strengths	Weaknesses
	• Do more stringent standard's really benefit the environment? ... need Cost-Benefit Analysis • Standards too lax for some small mechanical facilities (trickling plants) • Standards are a moving target (advancing technology) ⇨ financial capacity to keep up?

Opportunities

- Statistical classifications of exceedances (look at S. Dakota groundwater)
- Use federal limits only
- Set standards at time you build plant for *"x"* years or for the life of facility (grandfathering)

TRAINING AND ASSISTANCE (Alexandria)

Strengths	Weaknesses
• Pond discharge requirements (no call needed) • Training availability (borders on redundant sometimes) • Cost (might/would pay more) • Improvement in certification requirements	• Need cost-benefit analysis - training • More specific certifications by facility/industry (look at Wisconsin) • Old/outdated training manuals

Opportunities

- Cost benefit (consider contract/outsource)
  - Training
  - Training classes
  - On-the-job
  - Certifications
- Update training manuals
- Evaluate additional training needs
- Additional training for MPCA staff
- More specific training, i.e., certified facility vs. certified operator

OTHER OPPORTUNITIES (Alexandria)

• Reassign duties
  – Reduce inspections/increase value added
• Assign contact person for questions
• Decentralization
  – Permitting
  – Inspection (doesn't get Application or DMR)

Exhibit D

General Permit Analysis

Source of data for all charts in this section: U.S. EPA Clearinghouse for General Permits.

General Permits

	MPCA Benchmark Respondents																	
Permit Category	CO	CT	IN	KY	MD	MA	MI	MN	MT	NC	OH	OR	WA	X	Y	Z	TOTAL	%
Agricultural Production Livestock									59			803	3			18	883	13.6%
Not Yet Classified	1						129	3				149		3		77	362	5.6%
Sewerage Systems, Commercial															26		26	0.4%
Non-Contact Cooling Water			10			26		103		229		120		593	47		1128	17.4%
Private Households				312						644							956	14.7%
Petroleum Bulk Storage			11									95					106	1.6%
Sand & Gravel	180		9						2			61	216	83			551	8.5%
Transportation																	0	0.0%
Storm Water Runoff																	0	0.0%
Water Supply	30					6		41				56		72	49		254	3.9%
Seafood Processing										80		24					104	1.6%
Salvage and Recycling																	0	0.0%
Underground Storage Tanks																	0	0.0%
Primary Metals, Fabrication																	0	0.0%
Non-Coal Mining				172								22			58		252	3.9%
Concrete Industries														64			64	1.0%
Fuel Spill Cleanup			23									95				84	202	3.1%
Coal Mining	33		89	30													152	2.3%
Lumber and Wood Industry																	0	0.0%
No Discharge Permit							51	6						13			19	0.3%
Fish Hatcheries									15			50	83				148	2.3%
Aquifer Restoration								63	7								70	1.0%
All Others	193	0	3	4	0	0	0	0	53	166	0	219	74	275	217	19	1223	18.9%
CLEARINGHOUSE TOTALS	437	0	145	518	0	32	129	216	136	1119	0	1694	376	1103	397	198	6500	100.0%
SURVEY TOTALS - General	460	2000	194	7727	0	50	275	215	480	5881	5	2895	1138	1515			22871	
	CO	CT	IN	KY	MD	MA	MI	MN	MT	NC	OH	OR	WA	X	Y	Z	TOT'L	%

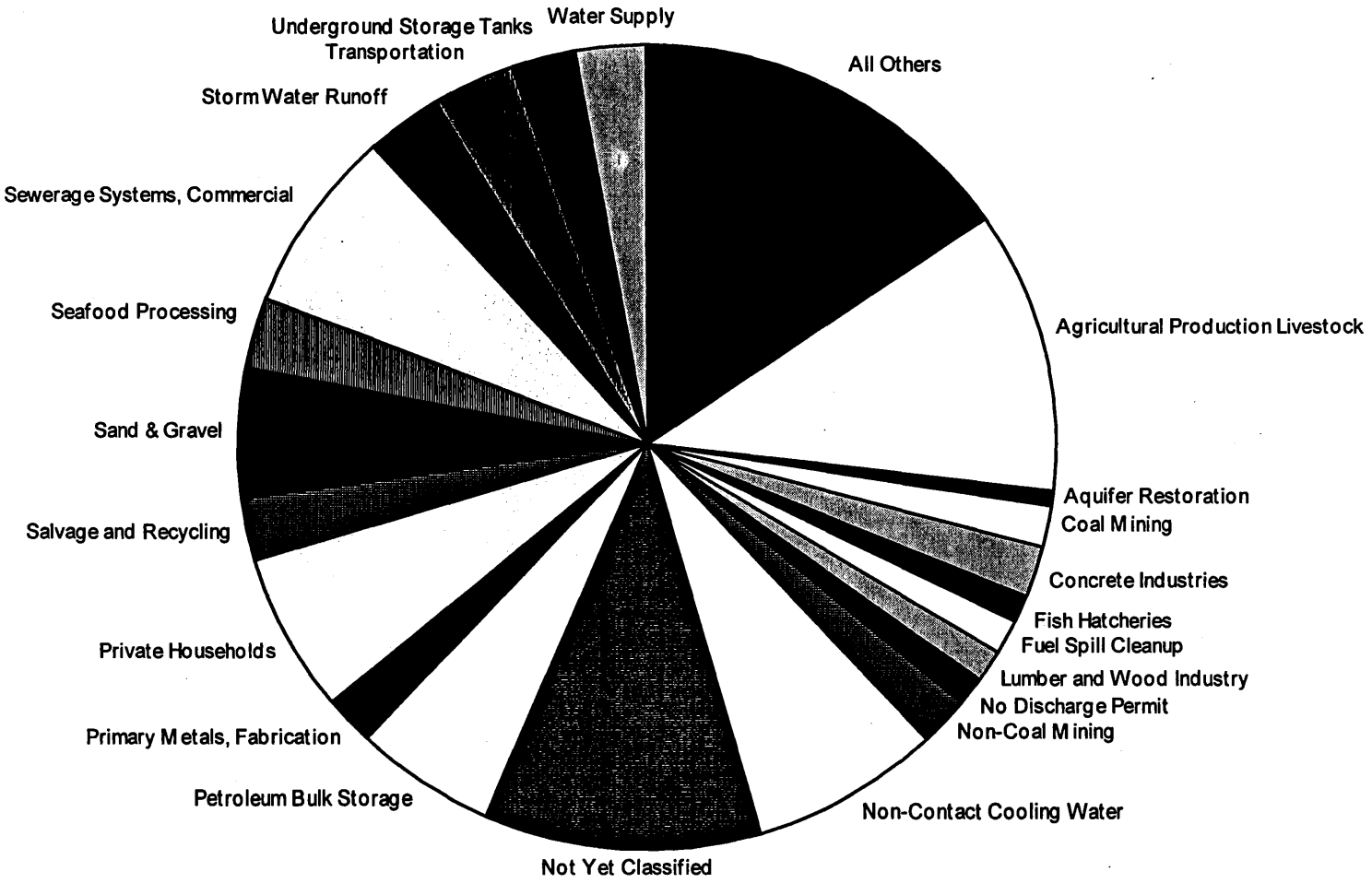
ARTHUR ANDERSEN

General Permits

	Major Non-Benchmarking States							CUMULATIVE	
Permit Category	WV	AL	LO	TX	MO	AK	All Other	TOTAL	%
Agricultural Production Livestock			5	581			326	1795	11.6%
Not Yet Classified	1275				1		22	1660	10.8%
Sewerage Systems, Commercial	706		429				0	1161	7.5%
Non-Contact Cooling Water		6					11	1145	7.4%
Private Households							26	982	6.4%
Petroleum Bulk Storage		206	69	229	146		121	877	5.7%
Sand & Gravel					260		0	811	5.3%
Transportation	514				13		0	527	3.4%
Storm Water Runoff	495						0	495	3.2%
Water Supply					100		59	413	2.7%
Seafood Processing						301	0	405	2.6%
Salvage and Recycling		395					0	395	2.6%
Underground Storage Tanks					7		376	383	2.5%
Primary Metals, Fabrication		305					11	316	2.0%
Non-Coal Mining					47		0	299	1.9%
Concrete Industries		220					0	284	1.8%
Fuel Spill Cleanup					43		2	247	1.6%
Coal Mining							94	246	1.6%
Lumber and Wood Industry		222					0	222	1.4%
No Discharge Permit					152		51	171	1.1%
Fish Hatcheries					4		19	171	1.1%
Aquifer Restoration							10	80	0.5%
All Others	25	391	135	20	203	238	0	2387	15.5%
CLEARINGHOUSE TOTALS	3015	1745	638	830	1128	539	1196	15439	
SURVEY TOTALS - General									
	WV	AL	LO	TX	MO	AK			

ARTHUR ANDERSEN

General Permits



Appendix B

Inventory of Point-Source Program Activities

Appendix B

Inventory of

Point-Source Program Activities

Prepared by the

Water Quality Division,
Minnesota Pollution Control Agency

September 7, 1995

TABLE OF CONTENTS

INTRODUCTION

About the Task Force

The citizens of Minnesota place a high priority on environmental protection and public health. "Protecting and improving the quality of Minnesota water" is the mission of the Water Quality Division (WQD) of the Pollution Control Agency (MPCA). This mission is, in part, met through the issuance and enforcement of National Pollutant Discharge Elimination System (NPDES) and State Disposal System (SDS) permits through the Point Source Permitting Program.

The NPDES program is a delegated program from the federal government. State rules require a SDS permit for construction and operation of a wastewater disposal system and for discharge to waters of the state. A NPDES/SDS permit is required for any discharge of pollutants and is the primary regulatory tool used to protect the state's surface and ground waters from contamination. These waters are used for drinking water supply, fishing, recreation, wildlife, agricultural, industrial and other uses.

The Point Source Permitting Program faced a severe funding shortfall in 1996 which could have resulted in loss of the permitting authority back to the federal government. The 1995 Legislature provided temporary funding for this program for the next two years with the stipulation that a Blue Ribbon Task Force investigate the Point Source Program. Specifically, the legislation (S.F. 106) states:

> "The Governor shall appoint an advisory task force to examine the point source permitting program in the WQD of the MPCA. The task force must include representatives of industrial and municipal permittees regulated by the MPCA and environmental interest groups. The task force shall report to the Governor and Chairs of the Senate Finance and House of Representatives Ways and Means Committees, and Chairs of the Environmental Policy and Finance Committees and Divisions of the Senate and House of Representatives by November 30, 1995 . The report must address the following issues:
>
> 1. What constitutes an adequate point source permitting program;
> 2. What the associated costs are of running an adequate program;
> 3. How these cost should be allocated and funded;
> 4. Loading-based fees;
> 5. Fees for permittees that have violations requiring enforcement actions;
> 6. How to improve public access to information concerning toxic pollutants in permitted discharges; and
> 7. A time reporting system to improve tracking of resource usage."

The ***Blue Ribbon Task Force on Funding Minnesota's Water Quality Programs*** was appointed by the Governor in June of 1995. Each of the 13 members of the Task Force represent key stakeholders; they have agreed to act as a liaison for the groups they represent and work cooperatively together to address the issues contained in the legislation.

Purpose of this Report

The purpose of this report is to provide the Task Force with the following information:

- a description of the existing organization of Water Quality Division's point source permitting program,
- an analysis of its functions,
- an explanation of the activities which are performed, and
- an outline of its costs.

Beginning on page 10 the four main functional areas of the Point Source Program are described in detail: permitting, compliance, water quality standards, and training and assistance. Each of these functions are described in terms of workloads, current resources, and trends.

Feedlot and storm water permitting programs are discussed separately (page 51) under Other Regulatory Programs, since they have existing and separate funding mechanisms.

Regulatory History

Federal Regulations*

Minnesota's NPDES water pollution control program is operated under a delegation agreement with the U.S. Environmental Protection Agency (EPA). Minnesota negotiates an annual program plan with EPA and receives EPA grants that in 1995 funded 32 percent of the point source program.

Federal regulation of water pollution began with the Rivers and Harbors Act of 1899. However, this act, administered by the U.S. Corps of Engineers to aid navigation, had little impact on most municipal and industrial sources of pollution. The Federal Water Pollution Control Act of 1948 provided the first modern attempt to deal with water pollution. This act authorized the federal government to engage in research about water pollution. The 1956 amendments to the act authorized a federal program of construction grants (with a federal share of between 30 and 55 percent) for municipal wastewater treatment plants. The 1956 amendments also authorized states to establish standards for water quality and authorized a limited federal role in enforcement actions.

---

* Program Evaluation Division, Office of the Legislative Auditor, State of Minnesota. "Pollution Control Agency" January 1991, pages 62 to 64.

The Federal Water Quality Act of 1965 required states to establish standards for ambient water quality on interstate water bodies and to develop implementation plans to meet the standards. States had primary responsibility for enforcement action, but the federal government reviewed and approved standards and implementation plans. States were to determine the standards and then divide the total allowable discharges necessary to meet the standards among the major dischargers.

The Federal Water Pollution Control Act of 1972 represented a major change in the regulatory approach to water pollution. Congress established the goals of eliminating all discharges of pollutants by 1985 and the attainment of "fishable and swimmable" waters by July 1, 1983. EPA established a set of technology-based effluent standards to meet these goals. The act required EPA to establish effluent standards for all dischargers within various categories instead of making case by case determinations based on the quality of the receiving waters. Initially, EPA, rather than the states, issued all permits. States could receive a delegation of authority to issue permits when they met certain conditions. EPA delegated this authority to Minnesota in 1974. As of 1995, there were 41 states in which EPA delegated its authority.

The 1972 federal act retained the state standard setting process established in 1965 and required that states review these standards every three years. Minnesota has set these standards through the administrative rulemaking process and in April 1994 adopted its most recent update.

The 1972 act called for standards to be implemented in two stages. By 1977, industries were to be meeting effluent limitations based on the best practicable control technology available. EPA was to consider the cost of the technology in relation to the benefit of the effluent limitation in determining what was practicable. Effluent limits for publicly owned treatment works were to meet secondary treatment standards by 1977. These deadlines for publicly owned treatment works were extended by the 1977 amendments until 1983, and were further extended in 1981 until July 1, 1988.

By 1983, industrial effluent limits were to meet standards based on the best available technology economically achievable, and municipal discharge limits were to be based on the best practicable waste treatment technology. If these standards would not result in water quality goals being met, higher standards could be required.

The Clean Water Act of 1977 modified some of the deadlines for achieving effluent limits. After 1977, standards for conventional pollutants (suspended solids, bacteria, organic material, and pH) were to be established based on "best conventional pollution control technology" and were to be achieved by July 1, 1984. Toxic pollutant dischargers were to meet best available technology effluent limits either by 1984, or three years after the promulgation of the standards. The 1987 reauthorization of the Clean Water Act again extended the deadlines until 1989. The 1987 amendments also required all states to adopt numerical standards for all "priority pollutants" for which EPA has established criteria. This list, required by Section 307(a) of the Clean Water Act, currently contains 126 toxic pollutants and EPA has adopted criteria for 30. Minnesota has amended its water quality rules to establish these numerical standards for 61 toxic

substances (48 of which are priority pollutants), as well as a procedure that can be used to establish standards for additional pollutants.

State Regulations

Minnesota began governmental efforts to curb water pollution as early as 1927, when a legislative committee reported on the pollution in the Mississippi River south of the Twin Cities Metropolitan Area and the need for sewage treatment plants. The Water Pollution Control Act, Minn. Stat. ch. 115 enacted in 1945, established the Water Pollution Control Commission, the precursor of the MPCA. The Commission was charged with enforcing the state's water pollution laws, cooperating with other governmental bodies, and setting up a permit system for and gathering information on disposal systems. The Commission issued construction and operating permits under this statute.

In 1963, Minn. Stat. § 115.41 to 115.53 (amended in 1967, 1969, and 1973) provided for a long-range plan for the control of water pollution by classifying the waters of the state and setting standards of quality and purity for each such classification. Cooperation between municipalities to provide area-wide waste management and treatment was encouraged by these statutes, and towns were given the authority to construct, install, acquire, maintain and operate disposal systems in the same manner as statutory cities. The first state water quality standards were developed in 1963 for the Mississippi River and Tributaries from the Rum River to the upper lock and dam at St. Anthony Falls. The state standards program existed nine years before the CWA authorization in 1972.

The MPCA was created in 1967 by Minn. Stat. ch. 116 which abolished Water Pollution Control Commission and transferred its functions and powers to the MPCA.

A number of statutory changes were made in 1969 which expanded MPCA authority and public participation. The MPCA was given authority to enforce its orders, permits, standards, regulations, etc. by criminal prosecution, civil penalties, injunctive relief, or actions to compel performance, Minn. Stat. § 115.071. The MPCA was given power to direct the immediate discontinuance or abatement of pollution in emergency situations, where there is an "imminent and substantial danger to the health and welfare of the people of the state." Minn. Stat. § 116.11. The procedures for hearings and issuance of permits, variances, stipulations, etc. were refined to allow fuller public notice and participation, and the hearings and records of the MPCA were made generally public. Minn. Stat. § 115.05, 116.075.

Minnesota was one of the first states to be delegated the authority to administer the NPDES permit program, under the Clean Water Act, in June of 1974. Currently 41 states administer the NPDES permit program under EPA oversight. In July of 1979, Minnesota was the first state to be delegated the authority to administer the Industrial Pretreatment program.

Organization and Staffing

As shown in Figure 1 (page 6), the Water Quality Division (WQD) is organized into four main sections: Nonpoint Source Compliance, Point Source Compliance, Monitoring and Assessment, and Watershed Assistance.

The nonpoint source programs have shown the most recent growth due primarily to the development of the Storm Water and Feedlot Programs and increased federal funding solely for nonpoint source programs. The increase in staffing for nonpoint source issues did not impact the point source permitting program, since they have separate funding mechanisms, accounting and staffing within the WQD. In fact, the complement assigned to the basic permitting program has decreased in recent years. Engineering staff, for example, has been reduced by about 50 percent over the past five years, due to state general fund and federal point source funding decreases.

The Point Source Permitting Program, as shown in Table 1 (page 7), spans different sections throughout the Division. Currently, 103 total staff manage all of the industrial and municipal permit activities. A majority of the permitting staff are within the Point Source Compliance Section. The Monitoring and Assessment Section, Regional staff, and the Manager's office also provide support directly related to permit issuance. Table 2 shows a functional area breakdown for the Point Source permitting program. Permitting and Compliance/Enforcement comprises over 70 percent of the staffing currently available to the program to issue permits and to monitor and enforce compliance.

TABLE 2

POINT SOURCE PROGRAM STAFFING
BY FUNCTIONAL AREAS

	INDUSTRIAL	MUNICIPAL	TOTAL
Permitting	13.4	21.7	35.1
Compliance/Enforcement	13.1	25.0	38.1
Water Quality Standards	10.7	9.1	19.8
Training and Assistance	0.6	9.4	10.0
TOTAL	37.8	65.2	103.0

WATER QUALITY DIVISION

Patricia M. Burke
PC Division Director
296-7202

Peggy Adelmann
Admin. Mgmt Dir. 2
296-8005

Laurie Martinson
PCS Sr. (WOC)
296-7360

MANAGER'S OFFICE *Office Administrator* Chris Johnson (6-7328)	NONPOINT SOURCE COMPLIANCE John Holck (7-7568) Section Manager	POINT SOURCE COMPLIANCE Marvin Hora (6-7201) Section Manager	MONITORING & ASSESSMENT SECTION Duane Anderson (7-1831) Section Manager	WATERSHED ASSISTANCE SECTION Gaylen Reetz (6-8856) Section Manager
Word Processing Ctr Jean Garvin (6-7362)	***Feedlot A*** David Nelson (6-9274) Prin. Eng. Supv.	***Compliance Unit 1*** Mary Knudsen (6-7222) PCS Prin. Supv.	***Standards*** John E. Hensel (6-7213) Prin. Eng. Supv.	***Red/Upper Mississippi*** Gregory Gross (6-7442) Prin. Eng. Supv.
	Feedlot B Patrick Mader (7-7570) PCS Prin. Supv.	***Compliance Unit 2*** David Kortan (6-6010) Prin. Eng. Supv.	***Data Mgmt & Monitoring*** Sylvia McCollor (6-7249) PCS Prin. Supv.	***Minnesota/Lower Mississippi*** Wayne Anderson (6-7323) Prin. Eng. Supv.
	Storm Water/Wetlands Gene Soderbeck (6-8280) Prin. Eng. Supv.	***Compliance Unit 3*** Russell Felt (6-7236) PCS Prin. Supv.	***Lakes/Toxics Assessment*** John F. McGuire (6-8744) Prin. Eng. Supv.	***Rainy/Metro/St. Croix/Superior*** Dan Helwig (6-7215) PCS Prin. Supv.
	ISTS Gretchen Sabel (7-7574) PCS Principal	***Indus. Permit & Tech Review*** Douglas Hall (7-1832) PCS Prin. Supv.	***Administrative Support*** Theresa Kohn (6-8109) CTIV Supv.	***Planning/Administration*** Margaret J. Velky PCS Prin. Supv.
	Administrative Support Andrea Schuberg (7-7575) CTIV Supv.	***Indus. Enforce & Tech Review*** Loren Voigt (6-7244) PCS Prin. Supv.		***Administrative Support*** Theresa Kohn (6-8109) CTIV Supv.
		Training & Infor. Mgmt Dwayne Nelson (6-7383) Prin. Eng. Supv.		
		Administrative Support Jean Kustelski (6-7752) CTIV Supv.		

Comparison of Point Source Program Staffing From 1990 to 1995

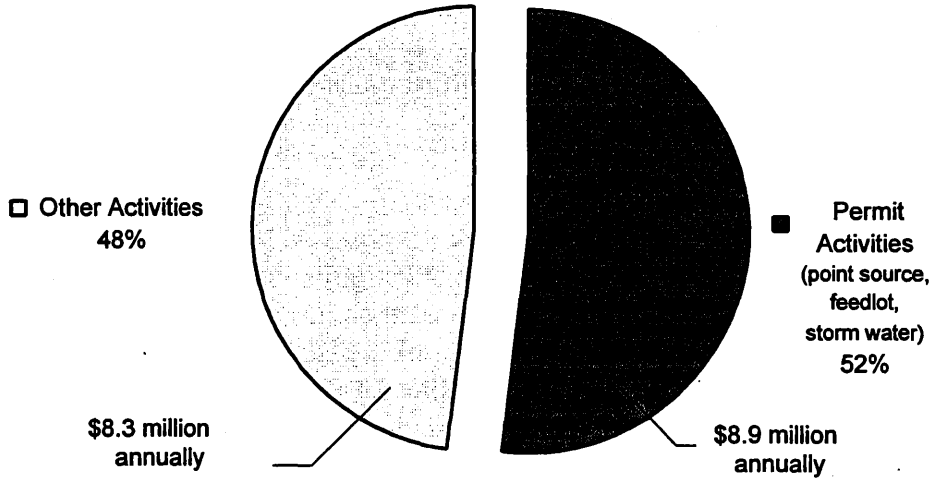
MANAGER'S OFFICE POSITIONS	1990 STAFFING (FTE)	1995 STAFFING (FTE)
Division Manager	0.5	0.5
Management Trainee		0.5
Administrative Management Director	0.5	0.5
Budget Staff	1.0	1.1
Rule Staff		0.5
Electronic Data Unit Supervisor		0.5
Electronic Data Staff	0.5	2.2
Project Consultant		0.5
Student Worker		0.5
Office Administrator		0.5
Administrative Support Supervisor	0.5	0.5
Clerical Staff	0.5	1.6
Word Processing Supervisor	0.5	0.5
Word Processing Staff	3.0	1.6
	TOTAL 7.0	TOTAL 11.5
POINT SOURCE COMPLIANCE SECTION POSITIONS		
Section Manager	2	1
Administrative Support Supervisor	2	1
Clerical	7	4
Compliance Unit Supervisors	7	3
Municipal Technical Staff	21	10
Municipal Permit Staff	3	4
Municipal Enforcement Staff	6	7
Municipal Sludge and Hydrologic Technical Staff	5	3
Financial Assistance	21	
Planning	3	
Pretreatment Staff	1	1
Rules Staff	0	1
Industrial Supervisors	2	2
Industrial Technical Staff	2	3
Industrial Enforcement and Permitting Staff	8	10
Industrial Sludge and Hydrologic Technical Staff	3	2
Training and Information Mgmt Supervisor	1	1
Operation and Training Staff	9	5
Information Management Staff	3	4
Student Workers	2	3
Clerical	1	1
	TOTAL 109.0	TOTAL 66.0
MONITORING AND ASSESSMENT SECTION POSITIONS		
Section Manager	0.6	0.4
Administrative Support Supervisor	0.6	0.4
Clerical Staff	1.4	1.9
Standards Supervisor	0.6	0.5
Technical Staff	2	3
Scientific Staff	0	2
Pollution Control Specialists	3	3
Data Mgmt and Monitoring Supervisor	0.6	0.4
Clerical positions	0	0.4
Pollution Control Specialist	5	4.5
Lakes/Toxics Assessment Supervisor	0.4	0.3
Research Scientist	3.5	0.5
Pollution Control Specialist	3.3	2.7
	TOTAL 21.0	TOTAL 20.0
REGIONAL/OTHER STAFF POSITIONS		
Regional Staff	6	5.5
	TOTAL 6	TOTAL 5.5
TOTAL POINT SOURCE STAFF	143.0	103.0

PERMIT PROGRAM OPERATING COSTS

Overall Water Quality Division Budget

As noted above, the Water Quality Division performs regulatory, assistance, and technical activities in a number of areas. These activities include: permitting and enforcement activities for municipal, industrial and storm water discharges and feedlots; the federal nonpoint source program; the Clean Lakes Program and Clean Water Partnership Programs; routine water quality monitoring; point source standards and effluent limit setting; watershed planning, and the individual sewage treatment system program. The overall Division budget for the 96-97 biennium is $34.4 million ($17.2 million annually). The 96-97 biennium permit program budget (includes point source, feedlots and storm water) as shown in Figure 2, is $17.8 million ($8.9 million annually) or 52 percent of the total division budget.

Figure 2: Overall Water Quality Division Budget



Permit Program Biennial Budget

The permit program budget (point source, storm water and feedlots) is funded by three primary sources: permit fees, federal funds, and state general funds. In the 1996-97 biennium, the Division was facing a $2.6 million shortage for the permit program and the legislature provided temporary (two year) funding from a variety of sources to relieve the shortage. This temporary funding will run out in FY 1998. Table 3 provides a breakdown for the 1996-97 biennium budget.

Table 3

1996-97 BIENNIUM PERMIT PROGRAM BUDGET

Source	$	% of Total Need
Fees	$ 4,800,000	27
General Fund	$ 6,284,000	35
Federal Fund	$ 4,122,000	23
One-time solution:		
• Motor Vehicle Transfer Fee Transfer	$ 1,420,000	
• Fund Balance Transfer from Fees	$ 315,000	
• Additional Administrative Funds (PFA Loan Program)	$ 559,000	13
Sub-total	$17,500,000	
Shortfall	$ 300,000	2
Total for biennium	$17,800,000	100

Point Source Program Budget

Operational costs for municipal and industrial permitting activities total $13.8 million bi-annually ($6.9 million annually) or 78 percent of the biennial permit program budget. Permit fees from municipal and industrial facilities provide revenues of $3.6 million bi-annually ($1.8 million annually) or 26 percent of the total budget for the permitting and enforcement activities for these facilities. A detailed inventory of these activities follows this funding discussion.

The operator training unit also generates revenues from operator certification fees and from training course registration fees. Revenues for operator certification fees are adequate to cover the costs of administering the certification program. Revenues from registration fees pay for the cost of the facility, meals provided to the operators, and printing costs for manuals and other training documents, and ½ FTE staff time for the MPCA.

Other Regulatory Programs Budget

Feedlot regulatory activities, as discussed on page 51, are primarily funded through general fund dollars (with some federal nonpoint source funding support). In 1994, the Legislature increased the MPCA's general fund appropriation to fund feedlot regulatory efforts. The total biennial budget for feedlot regulatory activities is $2.8 million ($1.4 million annually) or 16 percent of the total permit program budget. Large permitted feedlots pay annual permit fees based on the rates charged for industrial facilities.

In 1995, Storm Water Permit Fee Rules were revised. This revision fixed a problem in the rule which would have sunset permit fees for storm water permits. Adequate fees are collected from storm water permittees to cover most of the costs of running the storm water program. Of the $2.4 million collected annually in permit fees, approximately $600,000 of this revenue is generated by storm water dischargers. Additional funding for this program is provided by temporary federal grants under 104(b)(3) of the Clean Water Act.

POINT-SOURCE FUNCTIONAL AREAS

Following are detailed descriptions of the activities of the MPCA's point-source regulatory programs for protecting water quality. The point-source program can be broken out into four functional areas. The four areas are:

- Permitting
- Compliance and Enforcement
- Water Quality Standards
- Training and Assistance

Each of these functional areas is discussed in its own section. Each section begins with a summary. Following the summary is a detailed explanation of activities in each of that functional area.

Point Source Functional Areas

Permitting

Summary

The 1972 Amendments to the Federal Water Pollution Control Act and subsequent amendments (Clean Water Act of 1977 and Water Quality Act of 1987) prohibit the discharge of pollutants to surface waters unless a National Pollutant Discharge Elimination System (NPDES) permit has been issued. Similarly, Minn. Stat. chs. 115 and 116 require a State Disposal System (SDS) permit for the operation of a wastewater disposal system, and for discharges to waters of the state (waters of the state include both surface and ground water). These permits are issued to regulate the discharge of municipal and industrial wastewater, dredge spoil disposal, feedlots, and aquaculture operations, and to restore and protect waters of the state for their designated beneficial uses (e.g., fishable, swimmable criteria, drinking water supply, agricultural uses). Facilities that do not have a direct discharge to waters of the state, such as those which irrigate or infiltrate their wastewater as a means of treatment and disposal, do not strictly fall under the NPDES rules, however they still are required to obtain an SDS permit.

Water Quality Division permitting activities in the NPDES/SDS program for point source dischargers consist of the following:

- application review
- technical review
- establishment of effluent limits and conditions
- determination of pretreatment requirements
- preparation of permit documents and fact sheets
- public noticing
- final issuance

The Division is responsible for the permitting, compliance, standards, and technical assistance for approximately 1,365 existing permits. In addition, the Division issues new permits or permit modifications for new construction (65 municipal and 50 industrial in 1994). An average of 160 municipal and industrial permits per year (100 municipal, 60 industrial), plus an additional 600 sewer extension permits are issued each year. Currently, there are approximately 35 staff directly involved in the permitting process which includes permit writers (4 municipal and 4 industrial), engineers (8 municipal and 2 industrial), hydrogeologist/soil scientist (3 municipal and 2 industrial), data management and computer specialists (5) and administrative support and management staff (7). Three of these positions are currently vacant. This does not include staff in the Monitoring and Assessment Section that determine water quality based effluent limits.

The permit backlog is one way of defining current workload. The permit backlog is the sum of all expired permits, plus applications for new permits. The backlog of permits requiring issuance or reissuance has steadily increased since 1990. Factors contributing to this backlog include:

- More complex state and federal requirements such as new regulations on toxics and wastewater solids handling;
- "Black hole" projects, which are defined as projects which take an extraordinary amount of staff time, seem to be on the rise;
- Lack of technical and enforcement staff delays resolution of outstanding issues;
- Increased numbers of inadequate submittals (i.e. permit applications, various reports);
- Increased public interest in environmental issues has slowed permit processing.

Permits are issued for existing facilities with expired permits. Permits are also issued to new facilities or facilities requiring an upgrade due to increased economic activity. Priority is given to permits for new facilities and expansions of existing facilities. The Division recognizes that the economic activity that is driving the construction is essential for Minnesota's economy and we give top priority to these types of permits. Priority is also given to major permits, or permits with a design flow greater than 1 million gallons per day, because facilities covered by these permits represent the greatest pollutant load to the state's waters and therefore pose the greatest threat to the environment.

Expired minor permits make up the bulk of the permit backlog. The Division has not always been able to respond in a timely manner to permit applications for new and expanded facilities and major permits with the decrease in staff levels. Any additional decreases in staff will result in further delays in permit issuance for construction activity and major facilities. These delays could result in significant negative impacts on water quality and to any economic activity that requires a permit.

Document Development

Reissuance of an existing permit includes a number of processes such as application review, technical review, determination of permit limits and conditions, drafting of the permit and fact sheet, public noticing, final issuance, and pretreatment analysis. All of these processes must be evaluated, and if necessary, completed in order to reissue existing NPDES/SDS permits pursuant to Minn. R. ch. 7001.

Issuance of a new or modified permit can require additional staff resources. Construction at a wastewater treatment facility is one example of a project that would require a new or modified permit. Since new waste volumes or treatment technologies could impact the environment, the permit must be revised accordingly. During 1994, the Division issued 65 new municipal and 50 new industrial permits. As described later in this section, these permits may require environmental and technical review activities, which can add considerable staff time to the permit issuance process.

Staff time required to issue, reissue or modify a permit will vary widely based on the complexity of each facility, the completeness and quality of the submitted application, existing compliance problems at the facility, cooperativeness of the permittee, and the level of public interest/controversy. The following is an attempt to provide a description of each permitting activity with an estimate of average number of staff hours to complete each task.

Activity/Process Descriptions

Application review:

The application process has been broken down into components with an average estimated amount of staff time required for each step of every permit:

1) MPCA mails an application form and instructions to expiring permittees; in some complex projects, meetings are conducted prior to completion of the application to discuss issues related to the site -- this does not occur frequently, but when it does, it is typically very time consuming; completed applications are processed for tracking purposes then forwarded to a permit writer (0.5 hr.);
2) Review of submitted application and related materials (3-40 hrs. with avg. 8 hrs.);
3) Review of existing permit conditions (2-8 hrs. with avg. 3 hrs.);
4) Compliance history review and any new site conditions requiring permit changes (3-16 hrs. with avg. 7 hrs.);
5) Engineering/technical review (2-2000 hrs. with avg. 8 hrs.);
6) Site visits (3-24 hrs. with avg. 8 hrs.); and
7) Review changes from existing permit (2-40 hrs. with avg. 8 hrs.).

The average total staff time required for the application process of permitting for a typical individual permit is about 42 hours. Staff time for this process varies greatly, depending on project complexity. We typically have the equivalent of one FTE devoted to one or two complex projects per year.

Permit Limits

Following the application review process, permit effluent limits are established. Minn. R. 7001.1080 requires establishment of limits for every permit. The process of limits determination is discussed below with an associated estimated staff time to complete:

1) Monitoring and Assessment Section staff determine water quality based effluent limits (2-80 hrs. with avg. 10 hrs.).

2) Industrial permit staff determine technology-based limits for industrial facilities in accordance with federal regulations contained in 40 CFR. This process includes checking categorical industry limits in 40 CFR 401; comparing technology and water quality-based limits to determine which are applicable and coordination with other state and federal agencies (4-80 hrs. with avg. 15 hrs.).

The average total time for determining permit limits is 25 hours for an industrial permit and 10 hours for a municipal permit.

See page 38 for a detailed description of the limits determination process.

Draft Permit and Fact Sheet

As required in Minn. R. 7001.1080 the permit writer will prepare a draft permit and fact sheet as follows:

1) Determine monitoring frequency and sampling protocols (1-4 hrs. with avg. 2 hrs.);
2) Draft permit language and public notice (3-80 hrs. with avg. 15 hrs.); and
3) Draft Fact Sheets; a fact sheet is required for all municipal and industrial major facilities and for each draft permit that is the subject of widespread public interest. The fact sheet documents the decisions made in the development of the terms and conditions of the permit. (Avg. 8 hrs.).

Total average time for drafting the permit and fact sheet is 25 hours.

Public Notice/Responding to Comments

- Pre-Public Notice

To assure the accuracy and completeness of the permit and to assure compliance with all state and federal water quality rules, draft permits are frequently pre-public noticed (7001.1080). This can include:

1) Coordinate w/WQD enforcement and regional staff (1-8 hrs. with avg. 4 hrs.).
2) Coordinate w/other divisional MPCA staff for consistency (3-40 hrs. with avg. 7 hrs.).
3) Negotiate permit conditions with permittee (8-80 hrs. with avg. 20 hrs.).
4) Complete revisions to draft permit (2-8 hrs. with avg. 5 hrs.).

Total average time for draft permit prepublic noticing is about 36 hours.

- Public Notice

Minnesota Rules require that all permits be put on public notice for a minimum of 30 days, during which time anyone may submit comments on the draft permit. The MPCA is then required to resolve all such comments prior to issuing the final permit or the permit must go to the MPCA board for issuance. The following activities are required to satisfy the rule:

1) Preparing notice and draft permit (maps, routing slips, coordinate with Training and Information Management Unit staff) (1-6 hr. with avg. 3 hrs.);
2) Comment Period -- 30 days, or more if extension is requested; and
3) Responding to comments (4-40 hrs. with avg. 8 hrs.).

The total average time for the permit public notice is 11 hours.

- Public Informational Meeting

A public informational meeting is held if the commissioner or staff determine that this would help clarify and resolve issues regarding the terms and conditions of the draft permit or if the commissioner receives a request to hold a meeting. The request for public meetings is on the rise. This could be related to the public's increased awareness with respect to environmental issues. Addressing a request for a public meeting can require up to 500 hours. Over the past three years the municipal part of the point source section has processed nine public informational meeting requests. The industrial side processes 1 or 2 public meetings per year.

The total time spent on public meetings, averaged per permit, is about 4.8 hours.

- Contested Case Hearings

Any person may petition for a contested case hearing on a noticed permit. The request must contain the following: a statement of reasons or proposed findings supporting an MPCA decision to hold a hearing, a statement of issues to be addressed, and any resolutions to the matter. The petition is brought to the MPCA board at which time the request is either authorized or denied.

Contested case hearings require: hearing preparation which would include file reviews and preparation of testimony; the hearing process; briefings; briefing replies; review of the Administrative Law Judge report; and preparation of the Board item. These functions could require 2 FTE's. Other program costs involved in the hearing process would include potential expert witness costs, Attorney General staff costs and the cost of an Administrative Law Judge.

There are relatively few requests for contested case hearings, probably due to the MPCA's up front negotiations. MPCA staff works to negotiate controversial permits and permit requirements and resolve these issues without costly hearings. This negotiation process is time consuming but it is less resource intensive than the contested case hearing process.

The total time spent on contested case hearings, averaged per permit, is 2 hours.

The overall total average time spent on public notice activities, averaged per permit, is 54 hours.

Final Permit

The final permit may be issued once all outstanding issues have been addressed. Final issuance involves making minor changes to the permit, permit tracking, peer review, then to support staff for copying and mailing. (1 hr.)

Complete Permitting Process

Table 4 shows a summary of the total average time for drafting and issuing a typical municipal or industrial permit is about 147 hours.

Table 4

SUMMARY OF AVERAGE STAFF TIME FOR PREPARATION AND ISSUANCE OF A PERMIT

TASK	TIME (HOURS)
Application Review	42
Permit Limits	25
Draft Permit and Fact Sheet	25
Public Notice	54
Document Processing and Mailing	1
TOTAL	147

General permits have been used to reduce staff time required to issue individual permits. General permits can, for specific activities, provide a method for the MPCA to furnish NPDES/SDS permit coverage to small discharges, with limited water quality impact, without drafting, noticing, and finalizing an individual permit for each facility. The general permit is noticed statewide, but does not indicate specific facilities to be covered. The MPCA has issued general permits for: non-chlorinated, noncontact cooling water, chlorinated noncontact cooling water, ground water remediation discharges for petroleum contaminated ground water, asphalt plant scrubber water (non-NPDES), storm water from industrial facilities, construction storm water, and dredge spoil disposal.

Summary

Permit processing efficiency has been increased through computerized writing, computer data tracking, the use of general permits, and improved permit applications. However, the overall time necessary to write and issue a permit has increased rather dramatically, due to the increasing complexity of regulations, increased concern with toxics, greater public awareness of and concern with environmental issues, and increased industrial activity requiring new NPDES/SDS permits. With current staffing levels the MPCA has been unable to take a proactive approach to regulatory activities. In addition the Division has had to reduce the time available for facility review and permittee assistance. This results in permit inaccuracies and reduced understanding by permittees. To spend more time on individual permits, with the current resources, would only further increase the current number of backlogged permits. Backlogged permits are those that have expired and are waiting to be reissued and those permits that have been requested to be newly issued or modified due to necessary changes.

Workload

Table 5 is a summary of permits by facility type.

Table 5

NUMBER OF WATER QUALITY PERMITS BY TYPES OF FACILITIES

	Major* NPDES	Minor NPDES	SDS	Total Facilities
Industrial	26	353	53	432
Municipal	53	596	33	682
General**	---	212	39	251
TOTAL	79	1,161	125	1,365

* A permittee with a wastewater discharge exceeding 1 million gallons per day.

** General includes noncontact cooling, ground water pumpout, water treatment plants, general dredge and asphalt plants.

On average, permit writers typically spend about 75-80 percent of their total time on the actual permitting as activities described above. The remaining time is spent on enforcement related activities, rule development, and various outreach/ educational activities with permitted and non-permitted facilities. These activities do not contribute to the 'bean count' of permits issued, but are still part of our work that can not be avoided. The MPCA currently issues about 90-100 municipal permits per year and about 60-80 industrial permits per year, with an average of about 160 permits total. The MPCA issues individual permits for a total of 682 municipal facilities and 432 industrial facilities. Applications for new permits, major modifications and reissuances that involve plant upgrades or other construction, get first priority. These are followed by reissuances

where there is significant environmental impact that needs to be addressed, then by major facilities, then by minor facilities.

Current Resources

The division currently has about 1,365 industrial and municipal permits. It takes an average of 147 hours to finalize a permit which is equal to 0.07 FTE per permit. (2080 hours/year = 1 FTE was used for this calculation, this value does not account for vacation, sick time, or holidays.) There are currently 8 permit writers can theoretically issue 113 permits per year. The MPCA's actual issuance rate is about 160 permits per year. The discrepancy is largely accounted for by including an additional 25 percent of general, water treatment plant, and non-contact cooling water permits which can be issued in a comparatively short time. With 1,365 permits on a 5 year reissuance schedule, there is a need to reissue a minimum of 273 permits per year just to maintain the backlog.

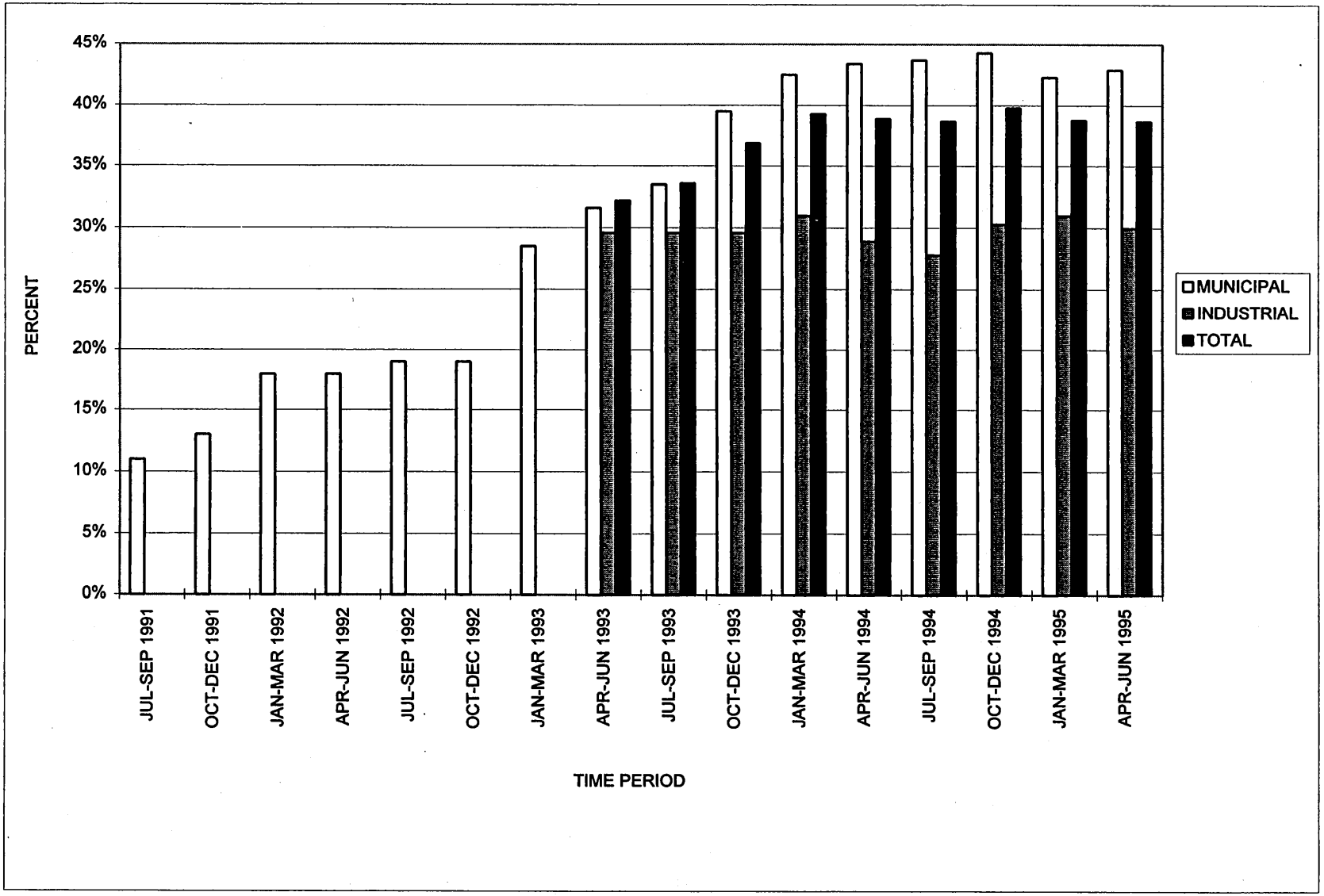
Trends

Permits issued during the early years of the NPDES program were very limited in scope, frequently including discharge limits for only a very few conventional pollutants (i.e. BOD, and TSS). In fact, toxic pollutants were discharged with little or no regulation until quite recently (the last 10 years) and even many permits issued in the last 6-7 years have been issued with no or only minimal monitoring for pollutants that are now known or suspected to be systemic or carcinogenic toxins to aquatic life and humans. As federal requirements have increased to adequately control the release of these pollutants, the permits and technical requirements have become more complex. To assure that permittees can meet the new requirements MPCA staff spend a great deal more time in reviewing technical issues, assisting permittees with design and operation of their treatment facilities, and assuring that permittees can and do maintain compliance with their permits. In addition, public interest in these issues has grown resulting in the need for increased staff time to resolve these issues. The permit backlog has also increased recently as a result of the additional backload created from new rule development for aquaculture facilities and sludge handling.

Figure 3 illustrates the increasing trend of the permit backlog since 1991. It is assumed that the comparatively stable backlog for industrial facilities has resulted from the addition of more staff since 1990. The current backlog of unissued permits is the sum of all applications, in house, for which permits have not been issued. The backlog of permits waiting to be issued or reissued in and of itself is not an environmental problem, but is a symptom of other problems. In some cases, insufficient staff time is available to resolve compliance problems and outstanding enforcement issues, which results in a permit not being issued. Additional enforcement and technical staff would help to address some of these problems in a timely manner. Delayed permit reissuance results in delays in industrial construction/expansion, community development, and impaired surface and ground water quality caused by unregulated or inadequately regulated discharges. Our backlog is about 467 permits (approximately 35 percent). This is expected to continue to increase at the current staff levels at a rate of about 7 percent, or 100 permits annually, and will stabilize at about 60 percent of all permits backlogged. In other words, eventually 60 percent of permits will remain expired on an annual basis at the current staff levels.

Figure 3

PERMIT BACKLOG PERCENTAGES*



*Prior to 1993 Industrial backlog information is not available

Technical Review

Technical review for permit processing has been broken down into tasks, including facilities plans, plans and specifications, construction inspection, sewer extension, other engineering activities, and soils/hydrogeological review.

Activity/Process Description

Facility plans

Facilities plans or engineering reports (FP) are planning documents, which recommend the best alternative to meet existing and future needs based on economic, environmental and public impacts. Except for financially assisted municipal projects (Minn. R. 7077.0272 subp. 1), review and approval of a FP is not a requirement for permit issuance (unless required as a special condition of the permit), but is assistance we provide to permittees to minimize project disruption during the design phase of a project. This form of planning and review is encouraged as an assurance that the chosen end-product will best fit a permittee's needs as well as the requirements of their permit. A majority of permittees submit FPs to the MPCA for comments regardless of whether they are required to or not due to concerns over current regulatory requirements and technical adequacy.

Failure to receive our approval on a FP can cost a permittee significant time delays and money. In one instance a community proceeded into design on a project prior to our approval of the facility plan. Because of issues raised by the public during the EAW process, concerning nutrient loadings to a lake, the facility design could not be used.

For issuance of new permits, where new construction or modifications to existing facilities occurs, an environmental review may be necessary as part of facilities planning. The MPCA's Administrative Services for Environmental Planning Review Office (ASEPRO) will publish an Environmental Analysis Worksheet (EAW) for projects which have potentially significant environmental impact. For those projects which are not required to prepare an EAW and are financially assisted through SRF, an Environmental Information Worksheet (EIS) is prepared by the staff engineer and mailed to interested parties for their comments. While the amount of staff time necessary for environmental review will vary depending on environmental sensitivity of the area and degree of concerns generated by public comments, this process has the potential to produce "blackhole" projects.

Plans and Specifications

Minn. R. 7077.0274 and Minn. Stat. § 115.03, subd. 1(f) states that one of the duties of the MPCA is to require to be submitted and to approve plans and specifications (P&S) for disposal systems. Plans and specifications are considered a critical part of MPCA review to determine if a facility should be permitted and whether it can meet all applicable state and federal rules. Plans and specifications are detailed drawings and written descriptions for proposed construction

projects. For a wastewater treatment facility (WWTF) construction upgrade or modification, the P&S become part of a legal agreement, between a community or industry and a contractor, that describes the work to be performed and the conditions under which the work will be performed. MPCA review of P&S considers the following factors:

1) Compliance with applicable effluent limitations and surface and ground water quality standards (Minn. R. chs. 7050 and 7060);
2) Reliability of the facility; system reliability reviews are directed towards long term compliance and the facility's ability to meet standards under normal and abnormal conditions;
3) Design reviews are included to ensure that generally recognized engineering standards are used as well as criterion developed by the MPCA;
4) Ease of operation; the ability of an operator to run the facility to meet the permit limits is directly affected by the facility design;
5) Cost effectiveness; for municipal facilities the MPCA reviews basic financial elements such as capital, operational and maintenance costs because a design which is unnecessarily expensive and complicated can jeopardize maintenance, reliability, and ultimate compliance with permit requirements.

As an example of our need to participate in P&S review, one small city proceeded into design and construction for an upgrade to their wastewater treatment facility and did not obtain MPCA approval. The project included replacing the seal on a leaking pond. MPCA pond seal guidelines were not followed and the reconstructed pond never held water. This city is currently in the process of building a new pond system at great cost.

Construction Inspections

Following approval of P&S a WWTF project will move into construction. Minn. Stat. § 115.03, subd. 1(f) states that one of the duties of the MPCA is to inspect the construction pursuant to approved P&S for compliance. In addition, financially assisted municipal projects have requirements for inspections during key phases of construction (Minn. R. ch. 7077).

Sewer Extensions

Any significant addition, replacement or extension to a sewer collection or transmission system is considered a sewer extension and requires a permit from the MPCA. Minn. Stat. § 115.03, subdivision 1(f) and 115.07 requires that plans and specifications be submitted and approved for disposal systems or any part thereof. Part II H. 1-3 of the permit requires P&S approval prior to start of any construction. Our review of applications for sewer extensions includes a basic overview of technical adequacy to verify that design standards are acceptable, a review of the existing treatment facility to determine acceptability of the proposed flow and/or loading increases, and a review of the facility compliance with permit conditions.

Other Engineering Activities

In addition to permitting and permittee assistance, engineering staff time also includes assistance in the review and approval of land application sites for sludge disposal (primarily municipal facilities), review of annual sludge reports (Minn. R. ch. 7040), review and approval of municipal Combined Sewer Overflow projects, enforcement assistance for projects with significant noncompliance, project management (tracking administrative requirements, submittals, schedules, etc.), special projects (developing guidance documents, special environmental studies directly related to a particular permit or common problem, training), and questions and problem resolutions.

Soils/Hydrogeological Review

The authority for regulating land application is derived from Minn. Stat. §§ 115 and 116 and regulations concerning ground water protection, sewage sludge, and permitting (Minn. R. chs. 7050, 7060, and 7001). Ground water is protected by both statute and regulation through the establishment of a nondegradation goal intended to prevent pollution of the underground waters of the State. Sewage sludge rules provide specific site suitability criteria, and application rate requirements. Permitting programs as authorized by State statute and rule are the primary tools for regulating waste discharges to land through State Disposal System (SDS) permits.

Soil/hydrogeological review is conducted on any industrial, or municipal waste that has final disposal onto or below land surface. The primary objectives are to ensure that (1) land application sites are suitable for waste disposal, and (2) a particular waste is applied at an environmentally protective rate. Waste treatment is provided by soils or a soil/crop system so that ground water degradation can be prevented. Review may also be conducted on facilities that have final disposal to surface waters but can impact ground water quality such as leaky stabilization ponds. Soil information is needed to adequately describe subsurface conditions and provide data on soil characteristics such as texture, organic matter, and permeability. The information submitted must also identify the depth to ground water and flow direction. Other data reviewed includes slopes occurring at application sites, the type of crop to be planted, the volume and quality of the waste to be applied, separation distances to surface waters and drinking water supplies, the method of waste application, and the location of any drainage ditches or draintiles.

During the permit development process, specific application sites are reviewed for suitability and proper loading rates determined. The review also includes the approval of monitoring systems at application sites and the development of monitoring requirements used to determine compliance with permit limits as well as assess land treatment system performance. For industries with pretreatment systems that discharge to municipal systems, a separate permit may be developed if a significant amount of sludge is generated. These permits include only site suitability and application rate requirements with limited monitoring provisions where more detailed technical review is conducted as part of permit compliance.

NPDES permitted facilities that generate sludge (municipal and industrial), silage or other biosolids for land application, must submit information on proposed land application sites for MPCA approval. The permittee must receive a letter of approval from the MPCA before sites can be used indicating sites are suitable for application and there is no local opposition. The application rate must be calculated, using the sludge nutrient analysis, for each site and be reported annually. Soils / hydrogeological review is conducted on 247 sites as part of permit compliance and/or permitting activities. Staff approve approximately 6000-8000 acres per year for application of an average of 40,000 dry tons of sludge per year.

Usually, new facilities are given preference over existing facilities that require a reissued permit. The reasoning is that existing facilities can still be regulated through the expired permit while new facilities can not operate without an issued permit. Also, facilities where enforcement actions are under way will also have preference over reissued permits and, depending on the threat to the environment, may have preference over a new facility. In the municipal area technical review of sludge application takes precedence over the review of wastewater land application systems that require SDS permits because sludge review is associated with already issued NPDES permits. Finally, in both industrial and municipal areas training and technical assistance is a priority as it provides an immediate benefit to the permittee.

Workload

The number of facilities plans (FP) documents, as well as plans and specifications (P&S) submitted to this MPCA will vary on a yearly basis depending on the state of the economy and the ability of permittees to produce or obtain funding for construction activities. In 1994, the MPCA reviewed 41 FPs. The Agency also reviewed and approved 65 sets of P&S. The MPCA will review FPs for projects receiving financial assistance on a priority basis since they cannot proceed into design and construction without our approval. Our priority for P&S review is the significant construction projects which have noncompliance issues or those projects which may impact economic development and growth. The amount of time necessary for review and approval of a FP or P&S documents will vary depending on the quality of the information submitted and the ability of a permittee to provide any additional information for the approval process. The minimum time necessary for FP or P&S review and approval is approximately 2-3 months assuming no environmental, permitting, or other delays. Construction inspections have taken a low priority in the engineer's work tasks since they do not inhibit activity by the permittee. Additional technical assistance, such as special projects and problem resolutions, has also taken a lower priority for the same reason. Sanitary sewer extension review and approval is considered a high priority since it directly impacts growth and development. An average year includes about 600 permit applications for municipal sewer extensions.

SDS permitted discharges include 15 municipal sewage sludge landspreading facilities (i.e. land owned or leased by a public entity generating the sludge), 28 industrial spray irrigation systems, 38 municipal spray irrigation systems, 5 municipal infiltration basins, 20 large drainfields, and 3 industrial sludge generators. The amount of time spent on soils / hydrogeological review for a particular permit or any application site review can be quite variable. Generally, it depends on the complexity of soil conditions encountered in an area, the size of the application area, and the

characteristics of the waste applied. A important factor that affects review time is the thoroughness of the data submitted by the permittee as the continuous requests for more information becomes time consuming. Also, any public controversy over a permit can significantly increase the amount of time spent on a permit as public concerns may need to be addressed through meetings, phone calls, and/or written correspondence. It generally takes 2-3 months to complete all the soils/hydrogeological review for an SDS permit.

Current Resources

The Point Source Compliance Section currently has 11 engineers available for all permit issuance and permittee assistance tasks (8 municipal, 2 industrial, and 1 supervisor). As an analysis of the use of municipal engineering time, Table 6 shows a breakdown of time was made during the period of March 1, 1994 through March 1, 1995. This summary focuses only on areas where significant time was spent.

Table 6

SUMMARY OF MUNICIPAL ENGINEERING STAFF TIME
FOR MARCH 1994 THROUGH MARCH 1995

Item	Time (hr)	FTE	% Of Time	% Financial Assistance Projects	% Other
FP (include Envr review)	2147.5	1.0	14	80**	20**
PS	3249.0	1.6	21	59	38
Permit Assist	2719.0	1.3	18	49	51
Const. Assist	850.0	0.4	6	57	10
Enforcement Assist	1345.0	0.7	8	59	34
Training	1111.0	0.7	7	48	52
Special Proj.	1819.0	0.9	12	45	55
Quest. & Problem Resolution	2185.5	1.1	14	68	25

Assumptions:

* Does not include sewer extension review and permitting
* FTE = 2080 hr.

** Total % may not be 100 since all MCWS, federal grant and CSO projects are not included.

In addition to the above referenced engineers, one staff engineer is assigned full time to sewer extension review.

Industrial and municipal soils/hydrogeological review is conducted by staff in two different units. Approximately 0.75 FTE currently reviews all industrial land application while 1.7 FTE are allocated to municipal land application.

Trends

Since the late 1980's, municipal engineering staff has been reduced by about 50 percent from 24 to 11. In general, the time available for review and approval of FP and P&S has decreased. These documents receive a cursory review, at best. Our ability to respond to our customers in a timely fashion has also decreased and construction projects have been delayed. In one case a city has been waiting over a year for approval of their P&S. Due to reductions in staffing we are unable to perform monthly construction inspections for significant construction activities.

With the wind down of the Federal Construction Grants Program we have noted some reductions in new wastewater treatment facility (WWTF) construction. There have, however, been an increasing number of existing facility rehabilitations. With the reduction in grant funding permittees are trying to meet their needs with what facilities they have available. This change to more rehabilitation projects actually increases the need for engineering design review since a facility retrofit can be more complicated than new construction.

Since federal grants funding has been cut, staff engineers have taken on many of the administrative responsibilities that the grants managers used to have. During the time the Point Source Section has undergone staffing reductions, the number of FPs reviewed and approved has actually increased for municipal projects from 30 FPs in 1986 to 41 in 1994. P&S review and approval over this same time period, has not significantly changed.

During calendar year 1994 a significant increase in permit applications for sanitary sewer extensions occurred. Over 700 permits were reviewed and approved which is the maximum amount ever recorded in one season.

The increasing backlog of unissued permits is directly associated with the lack of technical assistance to the MPCA permit writer. For example, all pond type WWTF's undergo a "desk top" water balance to determine if the system leakage is within acceptable limits. Available information indicates that approximately 20 percent of our reviews result in a determination of excessive leakage. Another 22 percent lack sufficient information (which is required to be submitted by their permit) to make the leakage determination. These situations require resolution, frequently with engineering staff time, prior to permit issuance. There is currently insufficient staff to resolve these issues in a timely manner.

For municipal land application sites, existing staff have been able to maintain sludge reviews but have had to reduce review of SDS permitted facilities. In some cases a reissued permit may not have any review at all and in other cases expired permits continue to regulate a facility until time is available for review. In either case there is less protection of both surface and ground waters. The MPCA is considering seeking delegation of the federal sewage sludge program (40 CFR 503), which is requiring one FTE in the development of new rules (7060). The trend for industrial facilities has been to regulate through expired permits until there is proper review. To date it has been difficult to keep up with permit reissuances as a significant amount of staff time is spent on new permits, enforcement actions, and training and technical assistance. An emerging permitting issue in the industrial area is the land application of industrial sludge where little data exists but which could have significant impacts on the environment.

Point Source Functional Areas

Compliance/Enforcement

Summary

The major activities of the compliance/enforcement (C/E) program include data management, inspections, compliance determination, enforcement, and compliance assistance. Water Quality Division compliance/enforcement (C/E) activities for point source dischargers include the following:

- conducting inspections
- evaluating compliance
- initiating enforcement actions in cases of serious non-compliance
- providing administrative and technical assistance

The workload for C/E includes all permittees. Seventy nine (79) of the permittees are major facilities with flows generally greater than one million gallons per day. Compliance activities are performed by 38 full-time equivalent (FTE) WQD staff located in the central and regional offices. Specific staffing activities include compliance assistance (6 FTE), inspections (14.25 FTE), enforcement (7.5 FTE), technical support (5.5 FTE), and data entry (4.75 FTE).

Since 1990, more staff are working in regional offices. Industrial C/E point source efforts have been strengthened with 4 additional inspection staff in 1990. The increased resources have helped to keep the industrial permit backlog from significantly increasing by addressing noncompliance issues prior to permit reissuance.

An overview of C/E point source activities for the past 4 years shows municipal point source compliance levels have improved, as indicated by increases in MPCA awards from 79 in 1990 to 204 in 1994.

Data Management

Activity/Process Description

The WQD uses an EPA computerized management information system (PCS) which is designed for tracking permits, compliance, enforcement, monitoring and inspection data for NPDES permits. Minnesota also tracks all SDS permits in PCS. Minnesota has had delegation for PCS maintenance since 1994.

The permit process, beginning with receipt of application, is tracked and monitored in PCS. Before public notice, permits are reviewed by data management staff for any discrepancies and for consistency with the coding guidelines required by PCS. Potential problems are brought to the attention of the permit writer, and the enforcement staff person. At the time of final issuance of the permit, all facility locations information, permit dates, compliance schedules, monitoring and limits data are verified and coded into PCS.

Discharge Monitoring Reports (DMRs) are generated by each permittee and submitted to the MPCA. Staff members review DMRs for possible data problems such as inaccurate calculations or improper units. DMR violations are reviewed before storing in PCS for accuracy. All compliance activities are tracked within PCS, such as enforcement actions, inspections, construction activities, and special monitoring requirements.

Public information requests received vary in complexity. Requests are received from MPCA staff, other governmental agencies, environmental groups, permittees, consulting engineers, and schools. PCS retrieval design requires expertise with the system and its processes acronyms, and variables.

Data management staff provide assistance to wastewater operators on proper completion of their DMRs including correction of improper calculations, clarification of inadequate or missing data, and proper interpretation of the permit limits and monitoring requirements. Staff members also work on development of forms, and on instruction sheets to help operators interpret their reporting requirements.

Workload

Currently, 1,365 active permits are tracked in PCS.

Compliance Reports are generated on a monthly basis for enforcement and regional staff. Supervisors receive *Status Reports* on a quarterly basis for permitting, noncompliance, and enforcement activities. Permits staff receive a *Permit Issuance Tracking Report* on a quarterly basis. MPCA board members receive a *Quarterly Permit Issuance/Enforcement Action Report.* These reports are generated from PCS. Other reports on compliance, permits and inspections are done routinely. Data management staff also produce the *Quarterly Noncompliance Reports* (QNCR) which are required by EPA for major facilities. The QNCR details major facilities in Significant Noncompliance for effluent, reporting, and compliance schedules according to criteria developed by EPA.

Current Resources

DMR review/entry	3.0 FTE
Information requests	0.8 FTE
Technical Assistance	0.5 FTE
Reports	0.5 FTE
Total	4.8 FTE

Trends

At the time of delegation PCS, was maintained by a single person, with occasional technical assistance from other MPCA staff. Within one year another full-time person was added but, PCS was still viewed merely as a vehicle for reporting to EPA and was used very little by MPCA compliance, permitting and enforcement staff. Over time, the division has added additional staff to the data management group, and the current staffing stands at 4.8 FTEs. PCS is now used extensively by Water Quality Division staff and considerable information is requested by outside sources.

In January, 1995 the Division required all permittees to use the federally mandated, and uniform national "preprinted" form generated from the PCS data base. This will make it more efficient to identify deficiencies in reporting.

The DELTA system, currently being designed by the WQD and the MPCA will have a significant impact on the management of data. Permits will be drafted in the new system allowing for automatic transfer of information about permit limits and requirements to the tracking system eliminating the need for additional data entry. In addition, it is likely that the DELTA data base will replace PCS as our compliance tracking tool.

Inspections

Activity/Process Description

The purpose of an inspection is an on-site evaluation of a facility's performance and compliance with permit terms and conditions. An inspection is also an opportunity for personal contact with the regulated community in order to better understand customer needs and assist the permittee in meeting permit requirements. There are 4 types of inspections that are used by the Division, these include; reconnaissance inspections, compliance monitoring inspections, sampling inspections, and pretreatment audits. Table 7 summarizes inspections completed from 1990 through 1994.

Table 7

MUNICIPAL AND INDUSTRIAL INSPECTIONS
DURING THE YEARS 1990 THROUGH 1994.

		1990	1991	1992	1993	1994
Pretreatment Audit	(M)	2	6	6	6	8
Reconnaissance Inspect'n	(M)	14	194	223	195	163
	(I)	7	11	16	5	29
Compliance Monitoring	(M)	107	110	166	136	162
Survey (CMS)	(I)	36	53	95	83	62
CMS + Sampling	(M)	5	17	16	4	8
	(I)	1	7	10	5	5

Please note: "M" represents municipal actions, "I" represents industrial actions.

Compliance monitoring survey (CMS) inspections consist of an on-site review of a facility's records, a thorough inspection of the entire facility, and if necessary a meeting with the operator and other responsible officials. It's purpose is to provide an in depth review of a facility's compliance. The CMS report prepared following the inspection identifies the compliance status of the facility and requests a response from the permittee if violations are noted.

Reconnaissance inspections are a less intensive overview of the facility. The inspector may choose to inspect only portions of the facility based on the results of previous compliance determination activities. A less formal report is prepared to document the inspection.

Sampling inspections include CMS activities with the addition of discharge sampling. Sample results are used for comparison with the permittee's self monitoring reports.

Pretreatment inspections are conducted annually for all federally delegated pretreatment programs. The inspections include an overview of the programs compliance with federal pretreatment requirements and may include site visits to the regulated industries.

Workload

Major facilities are generally inspected annually and minor facilities are inspected, at a minimum, once every three years. Based on the number of major and minor permits, MPCA staff must conduct 79 inspections at major facilities and another 400 minor facilities annually for a total of 479 inspections annually.

Current Resources

Inspection activities are the largest component of the C/E function. It is estimated that inspections require nearly 40 percent of C/E resources.

Trends

Recently, MPCA has placed an emphasis on moving compliance staff to the regional offices. Since 1990 regional staff working with industrial permittees has been increased from 0 to 4.5 FTEs. Regional staff working with municipal permittees has been increased from 3 to 4.5 FTEs. This change has resulted in an overall increase in the number of inspections that are completed annually.

Compliance Determination And Enforcement

Activity/Process Description

The compliance determination process requires enforcement staff do an evaluation based on the results of recent inspections, a review of permit requirements, and a comparison with the data base to determine if permit requirements including effluent limitations have been met. Compliance determinations can also result from MPCA follow-up on complaints.

Enforcement is one of the MPCA's response to a violation. Frequently enforcement action begins on an informal basis through the use of phone calls, warning letters and/or visits to the facilities. Formal enforcement actions are necessary for serious noncompliance. The MPCA uses a number of enforcement tools including; letters of enforcement, notices of violation, administrative penalty orders, stipulation agreements, and litigation. The level of enforcement is also dependent on the level of the permittees response to notification of the violation.

Workload

Table 8 shows the number of enforcement actions taken from 1990 to present.

Complaints are a special request for assistance by the public regarding environmental incidents that may violate laws. A significant piece of point-source complaints are related to unsewered communities and unpermitted industries, however, complaints can also be directed to existing point source dischargers.

Current Resources

Compliance determination and enforcement activities are estimated to account for 30 percent of the total C/E staff resources. The majority of formal enforcement actions are performed by central office staff in St. Paul.

Table 8

ENFORCEMENT ACTIONS* EXECUTED FROM 1990 TO DATE

	1990	1991	1992	1993	1994	1995 (mid-yr)
INDUSTRIAL						
Notice of Violations (NOVs)	14	22	9	11	7	3
Administrative Penalty Orders (APOs)	---	---	4	7	8	8
Stipulation Agreements (Stips)	0	7	1	6	3	1
MUNICIPAL						
NOVs	34	30	21	12	15	2
APOs	--	---	13	11	7	9
Stips	4	2	1	2	3	0

* APO authority was not available until 1992.

Trends

Compliance ratings for majors have averaged approximately 90 percent for the past 4 years. This is above required EPA levels. High compliance levels for minor point source dischargers are more difficult to achieve.

We currently do not have a good tracking system to quantify minor facility compliance, however, one indicator of compliance for municipal facilities is the Annual Award. These awards are given to facilities that meet a high level of compliance in the areas of effluent limits, reporting and operations. As Table 9 illustrates, the number of municipal facilities receiving awards has risen steadily for the past four years.

Table 9

MUNICIPAL POINT SOURCE OPERATIONAL AWARDS

	Majors	Minors	Total
1990	22	57	79
1991	24	80	104
1992	31	127	158
1993	28	147	175
1994	29	175	204

The 1987 legislature provided the MPCA Commissioner the authority to issue Administrative Penalty Orders (APOs) for violations of hazardous waste laws. In 1991, this authority was expanded to cover violations in all division. The APO is a unilateral penalty for noncompliance. The MPCA has the authority to impose penalties up to $10,000. APOs may include forgivable or nonforgivable penalties. Staff response time on APOs is indicated in Table 10. Response time should improve as staff become more familiar with this new tool.

Table 10

NUMBER OF DAYS FOLLOWING DISCOVERY REQUIRED TO ISSUE AN APO

Permittee Name	Days
Glencoe	133
Litchfield	428
Madelia	369
TOLD/ROCHON	39
Mid-America Dairymen	139
Power-O-Peat	153
Castle Towers	180
JR Bruender Const.	410

In 1992 the Division began using a Forum process to evaluate enforcement actions. The forum is MPCA's decision-making process whereby staff, supervisors and attorneys meet to discuss an enforcement action. The objective of the forum is to evaluate a case based on all the information available and to reach the best decision possible as to the appropriate regulatory follow-up. The enforcement tool that forum participants agree to should return the regulated party to compliance and, when necessary, provide a consequence for noncompliance. The use of the Forum process has resulted in more consistent enforcement actions.

Compliance Assistance

Activity/Process Description

Compliance assistance is the task of providing technical and administrative assistance to the permittee. Central and Regional Office staff provides assistance by helping the permittee to better understand all permit terms and conditions.

Engineering and other technical staff also provide technical assistance in enforcement actions. This assistance includes assurance that a particular treatment technology will meet standards and result in compliance at a future date. In general, technical assistance focuses on treatment facilities and site analysis for determinations of their ability to meet compliance needs of permittees. In addition, assistance is provided to permittees to get non-complying facilities back into compliance.

Workload

Technical review consists of approximately 10 percent of the time spent on compliance/ enforcement by engineering staff on municipal dischargers while 20 percent is spent on industrial generators. Presently, very little time is spent by municipal staff on soils/ hydrogeological review in enforcement actions but 10 percent is spent on compliance monitoring for sludge application.

Current Resources

Engineering staff in municipal and industrial areas provide about 0.7 and 0.3 FTEs, respectively, on technical assistance for compliance/enforcement. Staff conducting soils/hydrogeological review presently spend 0.1 FTE in compliance monitoring activities and zero FTE doing enforcement actions. For industrial generators soils/hydrogeological spends about 1.2 FTEs on enforcement activity with zero FTE on compliance monitoring.

Trends

As more permits for municipal and industrial facilities are issued there is more need for technical review in the compliance/enforcement of these permits. More permits, therefore, will result in a greater demand for engineering or soils/hydrogeological review in the future as there is the greater probability for violations to occur and thus a greater number of enforcement actions.

Complaints and more inspections by enforcement staff will ultimately identify more violations that will require timely responses.

Compliance monitoring of municipal sludge application sites has been performed with little or no site inspections of land treatment systems for wastewater. The federal 503 Program for sludge will, however, require annual compliance inspections for majors which will increase the need for compliance monitoring by municipal soils/ hydrogeological staff. Considerable time, on the other hand, is currently being spent on soils/hydrogeological review related to enforcement actions at industrial facilities. Responding to already existing contamination problems is considered to consume more staff time than if compliance monitoring was properly instituted and problems were more quickly identified.

Pretreatment

Activity/Process Description

The regulation of wastewater discharged from an industry or commercial business to a privately owned treatment works (POTW) is referred to as "pretreatment." The MPCA operates its pretreatment program under delegation from the United States Environmental Protection Agency to administer the Federal General Pretreatment Regulations and the National Categorical Pretreatment Regulations, which are technology-based discharge standards applicable to specific

categories of industries. Authority to implement the federal pretreatment regulations has been further delegated to 8 POTWs in Minnesota. Oversight at the state level is necessary due to many pressures on local authorities which may cause them to neglect their pretreatment responsibilities.

Workload

MPCA Pretreatment activities can be divided between permitting of industrial users, and oversight and assistance of POTWs in their regulation of industrial users. Compliance activities consume a majority of MPCA staff time. As the MPCA pretreatment program is structured, there are two classes of POTWs: the 8 that have been delegated authority to implement the federal regulations, and those that have not been so delegated. About 67 non-delegated POTWs regulate about 130 significant industrial users (SIUs). The 8 delegated POTWs regulate about 375 SIUs. MPCA dealings with these two classes of POTWs are similar in concept, but different in degree and focus. In both cases MPCA requires POTWs to regulate their users, reviews their authority and procedures, and oversees how they do it, as well as providing assistance in doing so.

Delegated pretreatment POTWs are generally given higher priority since they typically represent larger facilities both in terms of flows and numbers of industrial users. The length of time to respond to submittals or requests for assistance varies widely due to differences in complexity, detail required, and perceived pressure.

Current Resources

One person, the pretreatment coordinator, works full time on pretreatment at MPCA, with time divided between pretreatment compliance activities and pretreatment permitting activities. In addition other people devote small blocks of time to pretreatment. Total resources currently expended for pretreatment compliance is slightly over one FTE. Other effort on pretreatment compliance is done by people in the Point Source Compliance Section and the regions.

Trends

The scope of the federal pretreatment regulations has and is expanding significantly. MPCA staff effort on pretreatment compliance has been reduced to a little more than one full time equivalent (FTE); nominal workload has increased, but actual work accomplished has not. The trend at MPCA can be described as accomplishing slightly less with much less resources. This trend runs somewhat counter to the trend at many POTWs, which have substantially increased effort, accomplishments and skill in the pretreatment program.

Point Source Functional Areas

Water Quality Standards

Summary

The purpose of a water quality standards program is to determine, adopt, and implement the criteria that will ensure protection for the specified uses of receiving waters. Water Quality Division standards activities associated with point source dischargers are broken down into:

- rules and rulemaking
- ambient water quality standards
- effluent limitations
- ambient water quality monitoring

Water quality standards, rules, and monitoring focus on all waters of the state versus individual permittees. Individual permittees are directly impacted when effluent limits are established based on the standards, rules, and monitoring. Therefore, funding for water quality standards development is only partly obtained through the permitting program. Rule writing, public hearing participation, Administrative Procedures Act conformance, MPCA board directives, and EPA review are estimated to consume 3.1 FTEs. Water quality standards staffing for NPDES permits are estimated at 3.1 FTE's. Effluent limits and secondary treatment standards utilize approximately 6.3 FTE's. At present, 7.3 FTEs are devoted to ambient monitoring.

Trends in water quality standards also indicate increased needs for activities based on:

- rulemaking becoming more complex such as with the Great Lakes WQ Initiative and economic cost/benefit analyses;
- water quality class revisions;
- increased requests for site specific water quality standards modifications and toxicity reduction evaluations;
- transition from fixed station monitoring to basin monitoring and biological assessment;
- increased WQ monitoring needs for determining program effectiveness;
- development of biological criteria; and
- coordinating with EPA on implementation of federal sediment criteria.

Rules and Rulemaking

The foundation of our water protection program is a process that monitors and categorizes various types of waters and determines the criteria that will ensure the protection of those waters. Minnesota water-quality standards (Minn. R. ch. 7050) form the basis of our programs that control the amounts of pollutants entering waters from such sources as wastewater treatment facilities, industrial plants, storm sewers, and runoff from rural and urban areas. These standards determine the maximum amount of pollutants allowable in a body of water. Water-quality standards are established for each body of water by first determining the "designated uses" of that water, such as drinking-water supply, cold-water fishery, use for human contact like swimming, etc. Then, using EPA's water-quality criteria, we determine a water-quality standard for each pollutant so that those uses are protected. The designated use of the receiving water, water-quality standards, and the nature of the discharge are all considered in the determination of the permit effluent limits. Effluent limits are applied so that water-quality standards will be maintained at all times. The authorities that allow the MPCA to derive and employ water quality standards and effluent limitations come from the federal Clean Water Act (CWA) and Minn. Stat. §§ 115 and 116. The primary tool that the MPCA uses to determine those procedures that protect water quality is Minn. R. ch. 7050.

Activity/Process Description

Minn. R. ch. 7050 implements Minn. Stat. 115-116 and CWA requirements and is the means by which water quality standards are determined and applied. It is this rule that has to be changed to accommodate any new water quality standards or criteria, water body use classifications, nondegradation procedures, and procedures that translate water quality standards into effluent limitations.

Workload

The process for developing new rules is extensive. Currently, it may take as long as two years to move through all of the formal proceedings before any revisions to the rule becomes final. EPA requires states to review or revise their water quality standards once every three years. Often the scope of rulemaking is driven by what EPA mandates as needed changes in Chapter 7050. The process must follow specific requirements of the Administrative Procedures Act including the timelines involved.

Current Resources and Process

The rulemaking process includes solicitation of public comment, public hearings, review for conformance with rulemaking procedures, citizen board approval, and subsequent review and approval by the U.S. EPA. The rulemaking effort itself requires about 5-6 FTEs and 1.5-2 years to complete. In other words, 3.1 FTEs are used on an annual basis for triennial standards/ rulemaking activities.

Trends

Rulemaking has become more complex in recent standards revisions. Most of this is due to EPA requirements to implement particular CWA requirements such as toxicity based standards or criteria or legislative requirements such as the aquaculture rules. We are presently beginning the process of implementing federal rules for protection of the Great Lakes known as the Great Lakes Water Quality Initiative (GLI). The amount of data gathering and evaluation has increased substantially for staff.

The MPCA completed the last version of Minnesota's water quality rule, Minn. R. ch. 7050, in April 1994. The next revision will be devoted almost entirely to the adoption of the GLI. Very minimal changes or additions to the rule outside of the GLI are planned for the next revision. States in the Great Lakes Basin have until March 1997 to adopt the GLI into their respective rules. The MPCA plans to adopt the GLI, including criteria for 29 pollutants, methods to develop additional criteria, and antidegradation and implementation provisions, just in the Lake Superior Basin with as few statewide changes to the rule as possible.

Ambient Water-Quality Standards

Activity/Process Description

All waters of the state must be classified in accordance with the CWA and Minn. Stat. ch. 115. Classification of waters of the state, including surface waters, ground water affected by surface waters, and wetlands are found in Minn. R. ch. 7050 where seven use classifications are identified. These classifications cover drinking water, aquatic life and recreation, industrial consumption, agriculture and wildlife, navigation, general use, and limited use categories. Wetland uses also provide seven additional use designations from biodiversity to stream sedimentation. For each of the specified uses listed in Minn. R. ch. 7050 there are numeric and narrative water quality standards for individual pollutants or for whole effluent toxicity (using live organisms) which have been developed to protect those designated uses. In addition the rule contains a nondegradation policy to maintain and protect existing uses and quality of the state's waters where existing water quality is better than the corresponding standard for that pollutant. Nondegradation applies to any new or expanded discharge of point or nonpoint sources of pollutants to receiving waters. Dischargers proposing such increased pollutant loadings would have to provide a demonstration detailing what efforts they would take in controlling the pollutant and what important socio-economic developments occur if the degradation is allowed. Updating of Chapter 7050 is required by EPA every three years.

Workload

The standards unit reviews NPDES permits as well as requests for water quality standards from other MPCA divisions to determine appropriate ambient standards for the specified pollutants as the necessary first step. Once ambient standards are determined, appropriate effluent limitations can be developed for those pollutants that are projected to exceed ambient standards or that

require imposition of secondary treatment standards. The workload is primarily a function of the requests received from the permits units to review new or reissued permits and the priorities attached to issuance of those permits. Simple permits, usually minor permits, proceed through review in less than a day and complex permits (most often majors) may take many months where negotiations are involved. Nondegradation reviews usually coincide with other permit review activities.

Current Resources

The MPCA has numerical water quality standards for 61 human health and aquatic life toxic pollutants. Site-specific water quality criteria are developed on an as needed basis according to the narrative methodology contained in Minn. R. ch. 7050. These are calculated in instances where numerical standards do not exist in the rule. Approximately one third of these site specific criteria are subsequently adopted through rulemaking for Chapter 7050 as statewide numerical water quality standards.

Site specific water quality standards *modifications* are distinct from the site specific criteria. The purpose of these site specific modifications is to develop a water quality standard for aquatic life species using tests that were conducted using actual site water and/or developing criteria only for those species that inhabit that site according to EPA prescribed procedures. Two site specific demonstrations have been developed since 1990. Members of the regulated community have the opportunity to employ this approach when conventional approaches prove nonfeasible. It can be a costly and time consuming methodology.

Routine evaluation of appropriate water quality standards for receiving waters for various regulatory activities, including NPDES permits is 3.1 FTEs.

Trends

No new statewide water quality standards are projected for the next rule revisions. Only additions or changes ascribable to the GLI and the Lake Superior basin may increase workloads. Most GLI pollutants currently have statewide counterparts. Site specific standards and site specific standards modifications are reviewed as needed.

Effluent Limitations

Activity/Process Description

Effluent limitations are placed into permits by two basic means. The first is determined on the basis of available technologies whether spelled out by federal or state regulation. The second is determined by calculation from water quality standards and translated into waste load allocations and subsequent permit limitations for individual dischargers. Federal technology- based effluent limitations are applied by the permit writers based on federal guidance. Standards unit staff calculate effluent limits from water quality standards or apply state secondary treatment

standards listed in Minn. R. ch. 7050. In those situations where dischargers are unable to attain compliance with limitations, variances may be submitted for MPCA review and approval as required in Minn. R. ch. 7050.

Workload

All permits are reviewed for the need for conventional and toxic pollutant effluent limitations. According to federal regulation, all toxic pollutants in a discharge that are known or projected to exceed water quality standards must have permit limitations, including consideration of whole effluent toxicity. Most permits evaluated by the Standards Unit receive secondary treatment standards (found in Minn. R. ch. 7050) for conventional pollutants like biochemical oxygen demand (CBOD), suspended solids (TSS), temperature, and pH. These reviews apply to major and minor permits and form the major portion of standards review activities in this unit. Major permits are most likely to contain toxic pollutant monitoring requirements and receive subsequent reviews. Water quality-based effluent limitations (WQBELs) are assigned to those toxic pollutants projected to exceed water quality standards.

Reviews may include development of Waste Load Allocations (WLAs) and Total Maximum Daily Loads (TMDLs). WLAs and TMDLs are methods of measuring and evaluating acceptable conventional or toxic pollutant loadings to receiving waters such that water quality standards are attained, a CWA requirement. Loadings from the various sources must be equitably distributed among sources and subsequently translated into average and maximum permit limitations for point sources. The process of conducting WLAs may be as simple as collecting discharge and receiving water data for desktop calculations for a single discharger, or collection of more comprehensive data in multiple source settings for a full TMDL/WLA study plan. TMDL plans may take several years to fully implement and may include re-evaluations or re-adjustments based on monitoring results for point and non-point source contributions.

Whole effluent toxicity (WET) tests are required of major dischargers by EPA policy. These standardized tests use live aquatic organisms to test effluents and receiving waters for toxicity. In situations where toxicity has been found the dischargers have been required to identify and mitigate the sources of toxicity. The process of identification and mitigation is known as a toxicity reduction evaluation (TRE).

Where dischargers find that compliance with effluent limitations to meet water quality standards is nonfeasible and would cause undue hardship, the discharger can apply for a variance with the MPCA. Variances require the discharger to demonstrate the level of treatment that is currently achieved, the efficiency and costs of alternative treatment measures, and other socio-economic burdens for additional treatment.

Current Resources

The current effort by staff to review and apply state secondary treatment standards, conduct WLAs on conventional and toxic pollutants, review WET tests and TREs, and review nondegradation and variance requests is 6.3 FTEs.

Trends

The basin planning approach to water quality control will place more emphasis on monitoring and evaluating the inter-relationships between various sources of a pollutants and the tradeoffs that may be available for control. It is expected that point source controls will no longer be the major or sole focus of water quality improvement efforts. TMDLs will be conducted on a priority basis and will be subject to a basin/watershed rotation schedule.

There may be future requests to conduct site specific standards modifications because of the inability of some dischargers to meet prospective toxic pollutant effluent limitations.

Routine WET testing began in 1987 for major dischargers primarily as a monitoring requirement. Toxicity of the states' dischargers is not wide-spread. Five dischargers have been formally involved in the TRE process in the past five years and it is anticipated that 2-3 more could commence within the near future.

Ambient Water-Quality Monitoring

Activity/Process Description

The ambient monitoring program provides a basis for the water quality permitting system. Monitoring acts as an essential guide to further water quality efforts, allowing us to make considered decisions as to the most effective direction for our actions. As such, it plays three primary roles: "Condition monitoring" begins the process by assessing the quality of our waters, pointing to problems that need to be addressed. "Problem investigation monitoring" then assesses any specific water quality problems, determining both cause and necessary remedial actions. Finally, "effectiveness monitoring" tells us whether our regulatory or management actions have been successful in fixing the problems or, if not, how our efforts should be changed. Requirements originate from section 305 of the CWA.

Workload

Elements in the program include reference site monitoring and biocriteria development for fish and macroinvertebrates (2 of 7 basins so far), fixed station monitoring (91 sites), random-site monitoring (projected 50 sites/basin), longitudinal integrated assessments (projected 100 sites/ basin), lake monitoring, and toxics assessment. This reflects the recently completed monitoring and assessment strategy.

Current Resources and Processes

The current fixed station and special project monitoring involves a current total of 7.3 FTEs who are directly involved in monitoring for point source permitting activities.

Trends

The Division recently completed a monitoring and assessment strategy designed to more cost-effectively provide the water quality information necessary for an effective water quality program. This strategy is coordinated with the division's shift to basin management, and broadens the focus of the monitoring to look at water resources as complete systems and at the full range of factors affecting the resources, including nonpoint source pollution.

This change grew out of a recognition that fixed station monitoring for water chemistry alone is no longer adequate to meet the changing needs of a successful water quality program. In particular, biological monitoring can provide an important new tool to directly determine the health of aquatic life. As the number of pollutants of concern grow, direct examination of the biological community will efficiently reflect the impact of many pollutants, integrated over time and space. This change from a technology-based approach to a comprehensive, water quality-based approach will necessitate additional resources be devoted to monitoring each of the seven basins.

Point Source Functional Areas

Training and Assistance

Summary

Within the Water Quality Division, Training and Assistance has been organized to perform the following tasks:

- Operator training
- State Revolving Fund (SRF) program management
- Technical assistance

Operator training provides between 15 and 20 training sessions annually for over 1500 wastewater operators. In addition, operator certification, on-the-job training and assistance, project review, and the annual evaluation and planning survey (AEPS) are provided at a cost of about 9 FTE's. The SRF program currently is overseeing 114 municipal projects on the project priority (PPL) list. These projects have estimated construction costs of over $49 million in 1995. For this Agency, SRF program management requires 1 FTE excluding project specific management, supervision, technical assistance and clerical staff.

In general there are increasing trends for use of our training programs . For example, training attendance in 1984 was 1,000 people while in 1994 the number attending was 1700. The number of certified operators has increased from 1500 in 1984 to 2750 in 1994. In addition, a decrease in available grant funding, has resulted in an increased use of SRF funds.

Operator Training

Activity/Process Description

The Training and Information Management Unit (TIMU) provides a variety of programs to assist primarily municipal permittees, including training, certification, operations and maintenance (O&M) manual review, and the annual evaluation and planning system (AEPS) review.

The certification program was established by Minn. Stat. 1971, § 115.71-115.80 and Minn. R. ch, 9400 to certify wastewater treatment plant operators. Minn. Stat. § 116.41 and Minn. R. ch. 7048 states that the MPCA shall certify and train waste disposal operators. Operators are also required to attend continuing education to renew their certificates. TIMU conducts training courses throughout Minnesota on wastewater treatment technology and waste disposal.
The on-the-job training and assistance was authorized under Section 104(g)(1) of the Clean Water Act. It was implemented in 1982 to address non-compliance problems at small wastewater treatment plants.

O&M review and approval and the one-year certification report is part of the SRF program which EPA delegated the management responsibility to MPCA. In addition, Minn. R. ch. 7077 require certification after one year of operation.

The Annual Evaluation and Planning System was developed by the MPCA in accordance with Stat. M.S. 115.03 passed in 1992 by the Minnesota Legislature.

Workload

Training
From 15 to 20 seminars, are attended annually by 1500 operators of wastewater treatment facilities. These seminars are held annually for the purpose of improved operation and maintenance, safety and to fulfill required training renewal hours.

Certification
Certification examinations are given at about 15 locations throughout the state annually. Over 600 operators take an exam and about 300 new certificates are issued every year. Certificates must be renewed every three years. Every year 800 certification renewals are sent out. Reciprocity and reinstatement applications are also reviewed.

On-the-job training and assistance
An initial plant visit is made to meet the operators and city officials and tour the facility. A diagnostic evaluation is provided through the use of a computer to identify operational, design and management problems that contribute to the poor performance of the plant. On a daily basis or as needed wastewater operators are provided with technical guidance and assistance either via written communications or telephone concerning proper operation and maintenance. Past and present plant operation and maintenance records and procedures are reviewed to gain insight into

a plant's problems. Training visits are made to the treatment facility over a nine to 12 month period. Visits are made at approximately four to six week intervals. The visits are typically two to four hours each. City Council meetings are attended periodically to keep city officials informed of the projects' status. A final report is written for the city upon completion of the project. In 1994, 22 facilities were involved and 31 site visits were conducted at these facilities. Over 125 cities have been helped through this program. Approximately 75 percent were brought into compliance with many others documenting improvements.

O & M Manual Review

Staff review and approve operation and maintenance manuals (O & M), and one year certification reports. O & M manuals are developed by a consultant engineer for the city's wastewater staff. The purpose is to provide specific instructions to operating personnel on the day-to-day tasks essential to achieving required effluent quality. In addition, an operability review is provided concurrent with the design review of plans and specifications of proposed municipal wastewater projects. The purpose of this review is to offer input concerning possible operational deficiencies along with performance and reliability problems that may result from the proposed design.

Annual Evaluation and Planning Survey (AEPS)

AEPS was created to assist municipalities in evaluating their wastewater treatment systems. The system is composed of a self-evaluation form, and an individualized report is generated based on the responses given in the form. The self-evaluation form is completed annually by all municipalities having NPDES or State Disposal System permits. The self-evaluation is to help facilitate wastewater infrastructure planning and improve communication between wastewater operators, municipal officials and the MPCA. Data from the forms will also provide an assessment of the wastewater needs in the state, and allow MPCA to take a more proactive role with municipalities. In 1994, 548 evaluation forms were mailed out to municipalities and 523 were returned.

Current Resources

Training Program (3.5 FTE's)
Certification Program (1.0 FTE)
On-the-Job Training and Assistance (1.75 FTE)
O & M Manual Review (0.3 FTE)
Annual Evaluation and Planning System (1.0 FTE)
Pond Discharge Approval (0.1 FTE)

Trends

Training Program

Course content is increasing in complexity to more stringent environmental regulations, stricter reporting requirements and changing technology. Training attendance in 1984 was about 1,000 people. In 1994 the number attending was 1700 people.

Certification Program

Because of the reasons stated above, there has been an increase in the numbers of certified wastewater operators. In addition an effort has been made to insure municipalities have a certified operator either through the permit process (a compliance schedule may be drawn up), or during a facilities compliance survey. In 1984 there were 1500 certified operators. In 1994 there were 2750 certified operators.

On-the-Job Training and Assistance

There has been a decrease in the number of facilities that receive assistance because of staff shortages. In 1994, 22 facilities received assistance in the program. In 1995, only 14 facilities received assistance.

O & M Review

O&M review and approval certification reports and operability review have only changed in the number of actual reviews. This is because of the change-over from the federal construction grant program to the state revolving loan program. In 1991, 26 O&M manuals were reviewed, while in 1995 only four were reviewed. In 1991, 26 revised O&M manuals were reviewed, while in 1995 two were. In 1991, 48 certification reports were completed, while in 1995 only 8 were. And, in 1991, 18 operability reviews have been conducted while only 5 will be done in 1995.

Annual Evaluation and Planning System

When AEPS was piloted in 1993, data was compiled manually, but is now scanned into a database allowing quick retrieval and cross-referencing. In 1994, 548 evaluation forms were mailed out to municipalities and 523 were returned.

Pond Discharge Approval.

The NPDES permit for approximately 300 controlled discharge municipal stabilization pond systems used to require preapproval for discharge of treated effluent. The purpose of this was to insure prescribed effluent limitations were achieved thereby avoiding any water quality violations and to offer any assistance to the operator.

In April 1994, the pond discharge notification policy was changed to require notification only when a) the discharge occurs during a "problem discharge period" (July 1 - August 31 and December 16 - March 31), b) the time period between the actual discharge and predischarge sampling exceeds two weeks and c) if any of the predischarge samples exceed NPDES permit limitations. By no longer requiring preapproval the WQD has saved approximately 0.1 FTE.

State Revolving Fund

Activity/Process Description

The Water Pollution Control Revolving Fund, commonly known as the State Revolving Fund (SRF), was created in 1987 under the provisions of Title VI of the federal Clean Water Act (Act) to provide financial assistance for water pollution control projects. The Water Pollution Control

Revolving Fund was implemented by Congress to phase out the construction grants program. Since 1989, federal capitalization grants have been awarded to states to provide low interest loans to municipalities to build new or upgrade existing publicly owned water treatment systems as defined in section 212 of the Act. The federal government has allowed four percent of the capitalization grant for administrative costs of the program. The federal grant must be matched by a twenty percent state appropriation.

Minnesota's SRF point source program is administered by two agencies: the MPCA [Minn. Stat. § 116.16; Minn. R. ch. 7077] and the Public Facilities Authority (PFA) [Minn. Stat. § 446.07; Minn. R. 7380.0400], which is part of the Minnesota Department of Trade and Economic Development. The MPCA is responsible for keeping the Project Priority List (PPL), preparing the Intended Use Plan (IUP), and reviewing and monitoring design and construction of the facility to ensure they meet all technical and administrative requirements. The PFA is responsible for reviewing the financial capability of the applicants, selling bonds to generate additional loan funds, and setting the interest rates, terms and conditions of the loans.

Workload

Municipalities with a need for new or improved wastewater treatment facilities and who are interested in a SRF loan may submit a request to the MPCA to be placed on the project priority list (PPL). All publicly owned wastewater treatment facility projects are eligible to be placed on the PPL. Once a municipality completes the preliminary planning work and receives approval, it may request the MPCA to put the project on the annual Intended Use Plan (IUP). The IUP lists the projects eligible to receive loans each year. Currently, there are 114 municipal projects listed on the PPL. Of these, 51 are currently listed on the 1995 IUP. Federal regulations prevent industrial and other privately-owned facilities from receiving funding.

The MPCA provides the technical review of all SRF wastewater treatment system construction projects. There are nine engineers on staff at the MPCA who review the facility plans and the plans and specifications of the proposed projects. The engineers also assure the completion of all administrative functions of the MPCA such as obtaining or renewing permits, completing the proper environmental review and providing general reviews regarding eligibility and project performance certification. The engineering staff communicates with the project engineers to assure technical feasibility and certifies that the project meets all requirements. Once the plans and specifications have been approved by the engineering staff, the MPCA certifies the project to the PFA for funding.

To date, the program has provided $384,031,669 in low interest loans to municipalities. $49,324,790 is budgeted for projects in fiscal year 1995, pending the projects' technical and administrative review. Interest rates vary according to the size and median income of the municipality.

Current Resources

Currently, the MPCA has 1 administrative FTE providing service to the SRF point source program. The administrative processing of the program includes the maintenance of the PPL, IUP and other EPA documents. The MPCA administrator is also responsible for communication between MPCA engineers, PFA and communities receiving loans. The administrative resources are adequate for maintaining a base program and also adequate when the program expands to fund storm water projects. Expansion of the SRF program and the proposed increases in number of projects going through the SRF are not expected to affect the work load of the administrative staff. This allows for the expansion of the program without an expansion of administrative FTEs.

Trends

Figure 4 and Figure 5 show the trends in both resources spent on the SRF projects and the number of projects being funded each year, respectively. The resources have decreased due to staff reductions and the number of projects have increased.

The SRF program has replaced the federal construction grants program which offered up to 90 percent grants to its recipients. Minnesota elected to have a leveraged program which provides money above the federal capitalization grant. Currently the leveraged funds allows all eligible projects to be funded, making the priority list a non-factor. The SRF program also requires some of the federal construction grants programs requirements, but because of leveraged funds, Minnesota has been successful in eliminating and minimizing them as much as possible. These changes provided the projects to plan, design and construct new or upgraded facilities with less administrative time and costs. The changes also relieved the MPCA staff of reporting and enforcing these requirements.

A significant change to the program is the inclusion of municipal storm water treatment projects to receive funding in the form of loans.

Technical Assistance

Activity/Process Description

Requirements

Technical assistance/training are additional services provided by the Division to permittees that does not directly relate to permitting. These services, however, are important to permittees as they are non-threatening actions taken by the Division to prevent problems rather than relying solely on enforcement actions that are punitive. Assistance is provided by technical reviewers routinely through inspections or upon request. Training is required for both industrial and municipal wastewater operators.

Figure 4: Resource Hours Spent on SRF Projects and Total Municipal Section Projects per Year

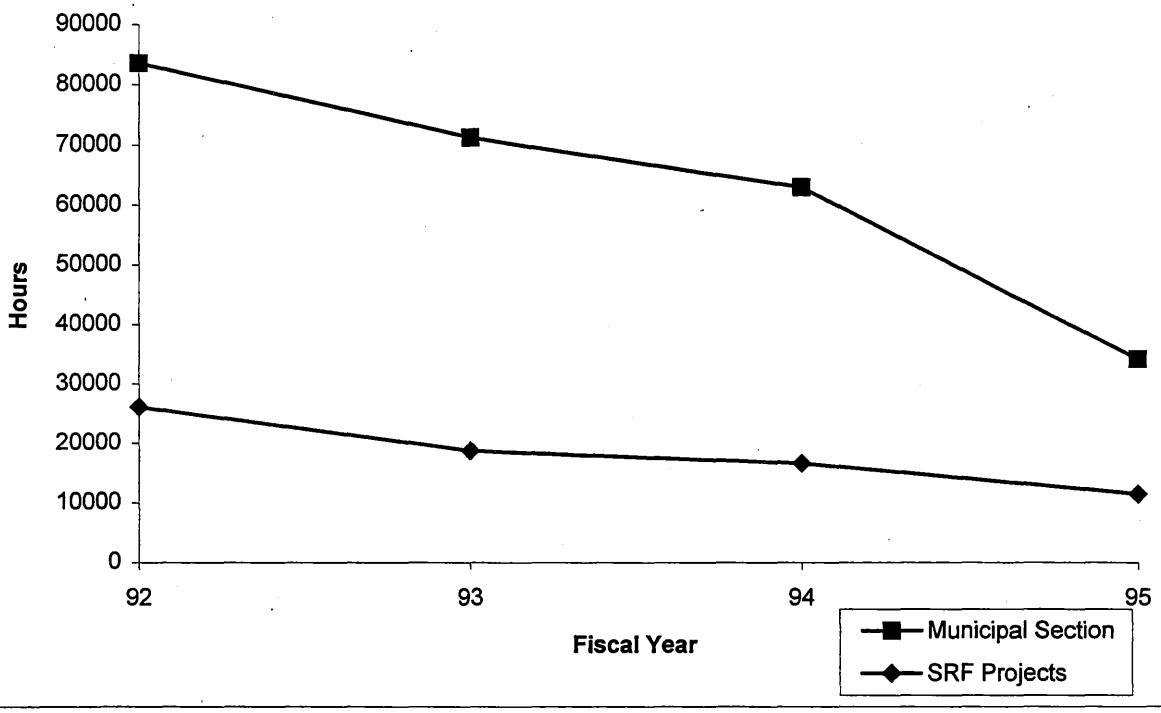
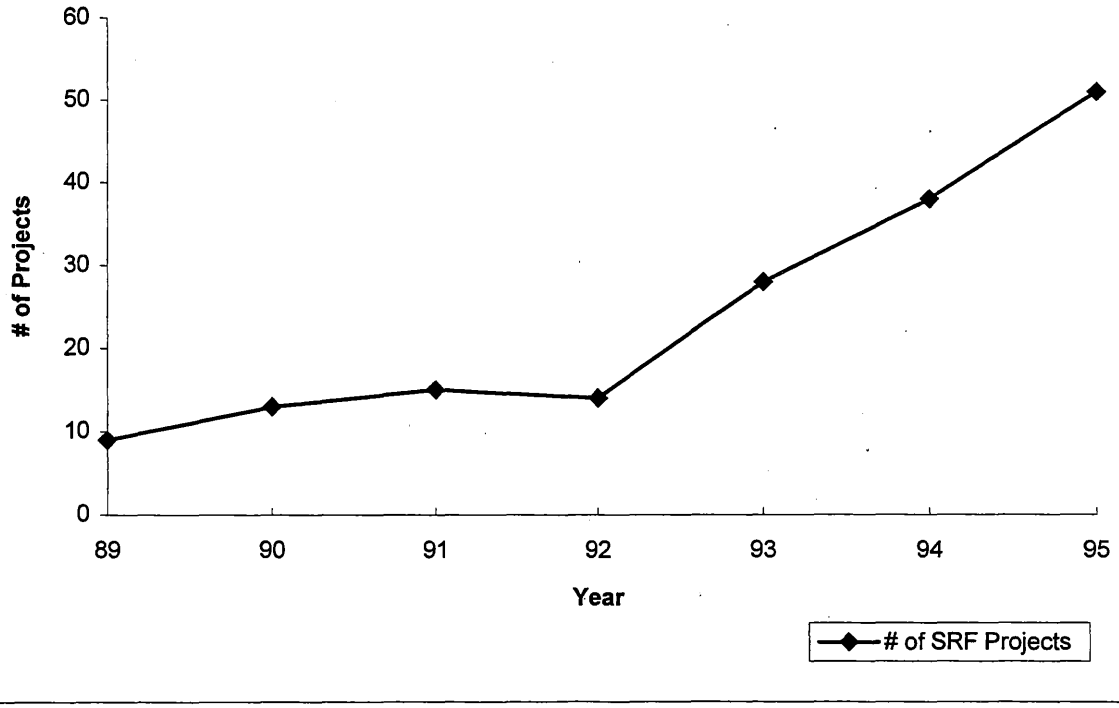


Figure 5: Number of SRF Projects per Year



Workload

Soils/hydrogeological review staff provide training several times a year for sewage and industrial sludge applicators resulting in certification as a Type 4 operator. Staff also provides training on an annual basis to operators of industrial spray irrigation systems leading to Type 5 certification. These services are not only important in educating operators but also building cooperation and communication with permittees.

Current Resources

Currently, 0.7 FTE is used for training sludge applicators and providing technical assistance to municipal land treatment operators and sludge applicators. Approximately 0.1 FTE is used in the training of industrial spray irrigation operators and providing technical assistance for industrial land treatment operators and industrial sludge generators.

Trends

Training courses and technical assistance are continually being updated and improved.

OTHER REGULATORY PROGRAMS

The other regulatory programs that the WQD administers include:

- Feedlots
- Storm Water

Each of these programs is detailed in the following sections. Each section begins with a summary, which is followed by a detailed explanation of activities performed in each area.

Feedlots

Summary

The MPCA Feedlot Program was started in 1971 to protect surface and ground water from potential pollution hazards created by livestock and poultry operations (feedlots). Since this time any feedlot owner with 10 animal units (a.u.) or more (i.e. 10 beef cattle, 7 dairy cows, 1,000 chickens, 25 hogs) has been required to submit a feedlot permit application to the MPCA when making a change to their facility. During the 1995 legislative session, the lower limit covered by state regulations was raised from 10-50, with the exception that facilities within shoreland management areas remain at 10 a.u. Feedlots of over 1,000 a.u. come under the authority of federal requirements.

The Feedlot Program assesses existing and proposed feedlots for any impacts to surface and ground water from open lots, manure storage, land application, or improper storage of manure. Currently, there are four types of feedlot permits issued by the Division :

- Certificate of Compliance
- Interim Permit
- National Pollutant Discharge Elimination System Permit (NPDES)
- Five-Year Permit

Over 17,000 livestock facilities have been issued permits to date from an estimated total of 45,000 feedlots in Minnesota with over 10 a.u.. The Division issues over 500 feedlot permits and certificates each year with 1 or 2 being an NPDES permit.

The Feedlot Permitting Program does not charge permit fees (except for NPDES permits) and is supported entirely by state general funds and some additional federal nonpoint source funding.

Activity/Process Description

Feedlot Program staff duties include assessing existing and proposed feedlots for impact to surface and ground water from open lots, manure storage, land application or improper disposal of manure. The time necessary to review and process a permit for a proposed feedlot varies greatly depending on the size of the operation, site conditions and the completeness of the submitted application. The authority for these activities can be found in Minn. R. ch. 7020. Feedlots with over 1,000 a.u. (a.u.) fall under federal requirements and the rest of the feedlots (10 - 1,000 a.u.) are state regulated within the jurisdiction of Minn. R. ch. 7020.

The Feedlot Permitting Program does not charge permit fees (except for NPDES permits) and is supported entirely by state general funds and some additional federal nonpoint source funding.

Permitting

The Feedlot Team currently issues four types of permits. These are:

Certificate of Compliance - A letter from the Director issued in lieu of a permit for facilities which do not have a potential pollution problem. About 85 percent of facilities are issued Certificates of Compliance. There is no public notice or fee attached to this certificate.

Interim Permit - Temporary permits issued for facilities that are creating ground or surface water quality problems for which solutions will be developed and implemented within one year, or construction of sites that have the potential to create water quality problems if not properly constructed. About 15 percent of facilities are issued these temporary permits. After the problems are resolved, the feedlots may be issued Certificates of Compliance. There is no public notice or fee attached to this permit.

National Pollutant Discharge Elimination System Permit (NPDES) - Issued to large facilities (1,000 a.u. or more) that have the potential to discharge to waters of the state. These permits have been issued to less than one percent of the facilities reviewed by the MPCA. A 30 day public notice is sent to local and interested parties and fees are assessed at the minor permit rate of $1,230/year.

Five-Year Permit - Issued to facilities that require more than one year to correct the problems due to technical or economic problems, or for sites that do not dispose of the manure as domestic fertilizer. Less than one percent of feedlots have been issued these permits. This permit is similar in format to the SDS permit and has a 30 day public notice. There are no fees charged.

The tasks necessary for permit issuance include:

1) Provide assistance with feedlot permit applications and review for compliance.
2) Issue appropriate permits for sites.
3) Site inspections to determine compliance.

4) Assist with preparation of environmental assessment.
5) Maintenance of the computer databases for information storing information and tracking.

If the facility is less than 1,000 a.u., the average time to review the application and write the Certificate of Compliance is 1 hour. If an Interim Permit is required to correct a pollution hazard the average time is 3 hours. A five year permit takes 1-2 days to prepare, depending upon the complexity of the compliance schedule.

For issuance of an NPDES permit, the largest staff time commitment is involved in responding to comments from the public notice. We have issued NPDES permits that have taken only a few days of staff time to write the permit, respond to comments and final issue the permit. Other permits have taken in excess of 40 days due to a contested case hearing request.

Engineering

The engineering duties of the MPCA Feedlot staff include:

- Review of plans and specifications for any type of manure storage structure with 500,000 gallons or more of capacity.

- Inspection of construction sites for compliance with MPCA permit requirements.

- Provide technical review or support for development of design criteria for storage structures, new products or methods, best management practices or environmental assessments.

On average, staff spends 3 hours per site in reviewing plans and specifications.

Training/Education/Outreach

The feedlot team's approach to "training" for livestock producers is more of an educational effort rather than formal training. We do provide formal training to local units of government and other groups that have contact with livestock producers. It has been our experience that it is more efficient to provide training to those people who have direct contact with livestock producers, such as zoning administrators, Soil and Water Conservation Districts, and MN Extension Service, than to try to provide an education program for 45,000 livestock producers.

The training/education duties of the MPCA Feedlot staff include:

1) Coordinate training on permit requirements, manure storage structure design requirements, manure management plans and other related issues.
2) Develop design criteria and construction methods for manure storage structures.
3) Make presentations related to the feedlot program.
4) Promote the publication of articles on agricultural waste management.
5) Build relationships and cooperation with other government agencies and producer groups.

Workload

There are currently over 17,000 livestock facilities in Minnesota that have been issued a permit or certificate by the MPCA since 1971. There are an estimated 45,000 feedlots in Minnesota with over 10 a.u..

Over 500 feedlot permits and certificates are issued by the feedlot team each year. Of these permits, only 1 or 2 may be an NPDES permit. Since 1971, a feedlot owner with 10 a.u. is required to apply for a feedlot permit when they make a change in their operation. To date the MPCA has issued over 17,000 feedlot permits or certificates for livestock operations, of which 13 are currently operating under NPDES permits.

Current Resources

The current staffing level of the feedlot team, from the Nonpoint Source Compliance Section is shown in Table 11.

Table 11

FEEDLOT STAFFING

FEEDLOT POSITIONS	STAFFING (FTE)
Section Manager	0.1
Administrative Support Supervisor	0.1
Clerical Staff	1
Feedlot Supervisors	2
Feedlot Technical Staff (engineering, hydrology and soil science)	6
Feedlot Pollution Control Specialist and Information Officer	3
Comp. Coord.	1
Student Worker	0.8
Regional Staff	4
Regional Technical	2
	TOTAL 20.0

Trends

Over the years the Feedlot Program has evolved separately from the Industrial and Municipal Permitting Programs. NPDES permitting has been a very small part of the program. Prior to November 1990, there were only three FTE's in the Feedlot Team. At that time, 2 FTE's were added. In 1994, the legislature approved a general fund increase that allowed the program to be staffed at its current level.

EPA is in the process of developing a new guidance for all states that administer the NPDES permit program, on livestock confinement sites. This guidance will require all feedlots with 1,000 a.u. or more, and some sites with 300 a.u. or more, which are a potential pollution hazard, to apply for an NPDES permit. We estimate that this will include approximately 500 sites across

the state. In the past we have only used NPDES permits for large operations with a high potential to discharge.

Since 1990, there has been a significant shift to larger livestock facilities, as shown in Table 12, with ponds having capacities in excess of 2 million gallons. In addition, as of April 1991, all earthen basins are required to be designed by a consulting engineer or the National Resource Conservation Service (NRCS). This increased the number of plans requiring review by the MPCA staff.

Table 12

Calendar Year	# of Sites Over 300 a.u.	% of Sites Over 300 a.u.	# of Sites Over 1,000 a.u.	% of Sites Over 1,000 a.u.	Total # of Permits & Cert. Issued
1990	62	24	11	4	259
1991	79	21	16	4	371
1992	122	30	25	6	406
1993	249	31	46	6	811*
1994	338	46	100	14	735

*Note: This number is unusually high due to reissuances of approximately 200 Interim Permits to Certificates of Compliance.

There has been an increase in the awareness of the general population and the farming community of impacts to the environment, including pollution caused by improper handling and storage of manure. This has 1) increased the number of feedlot permit applications that are being received and 2) increased the number of citizens expressing concern over construction of feedlots and submitting petitions for Environmental Assessment Worksheets.

Storm Water

Summary

The Storm Water Program regulates the discharge of storm water from industrial and construction sites that can come into contact with pollutants.

The MPCA Storm Water Program is part of the NPDES/SDS permit program. The program consists of the issuance of two General NPDES/SDS permits for certain *industrial facilities* and *construction activities*. The primary requirement of both permits is the development of plans to prevent the pollution of storm water by minimizing the contact of storm water with potential pollutants.

More than 19,600 industrial facilities potentially require coverage in the industrial storm water permit with approximately 2,100 facilities covered under the permit to date. The program received 777 construction storm water permit applications in 1994, which can vary from year to year.

The Storm Water Program is supported by user fees and federal 104B3 planning grants.

Activity/Process Description

The 1987 amendments to the Clean Water Act were designed to help improve the quality of surface waters by reducing pollution caused by 'storm water' (i.e. rain water runoff, snow melt runoff, and other surface water runoff and drainage). The enabling federal regulations (passed November 16, 1990) require certain activities to submit an application to be covered by a NPDES/SDS Permit authorizing discharge of storm water from their site. The MPCA has been delegated authority to issue NPDES/SDS permits on behalf of the EPA. The MPCA has issued two General NPDES/SDS permits for certain *industrial facilities* (September 30, 1992) and *construction activities* (September 3, 1993).

The Storm Water Program is supported by user fees and federal 104B3 planning grants.

Industrial Facilities

Storm water runoff at industrial sites may come into contact with significant materials which may pollute storm water. Examples of potential pollutants include:

- Toxic metals
- Oil and grease
- De-icing salts and other chemicals from roads, parking lots, and airports
- Other contaminants from industrial sites, landfills, scrap yards, etc.

Certain industrial facilities are required to apply for coverage under the General NPDES/SDS Industrial Storm Water Permit. The primary requirement of this general permit is the development and implementation of a Storm Water Pollution Prevention Plan. The Plan must be tailored to site specific conditions and designed with the goal of controlling the amount of pollutants in storm water by using 'best management practices' (BMPs). BMPs are measures and controls that prevent or minimize pollution of storm water by reducing or eliminating contact of pollutants with storm water.

Examples of facilities required to obtain coverage under an Industrial Storm Water Permit include:

- Landfills and land application sites that receive or have received industrial waste
- Hazardous waste treatment, storage, and disposal facilities
  Steam electric power generating facilities
- All mining, oil & gas operations listed in the federal storm water regulations by Standard Industrial Classification (SIC) code
- All manufacturing operations listed in the federal storm water regulations by SIC code
- All transportation and warehousing listed in the federal storm water regulations by SIC code
- All automobile and scrap metal recycling operations listed in the federal storm water regulations by SIC code

Construction Activity

Anyone conducting a construction activity that disturbs five (5) or more acres of total land area is required to apply for coverage under the General NPDES/SDS Construction Storm Water Permit in order to contain runoff silt, sediment, nutrients and other pollutants. The General Construction Storm Water Permit requires that a temporary and permanent erosion and sediment Control Plan be developed for the project.

In general the Storm Water Permit Program does not regularly public notice and issue permits since general permits for both industrial facilities and construction activities have already been noticed and final issued. An individual permit will be issued where water quality standards violations occur. In addition, there are no effluent limits in the permits. The primary requirement of both permits is the development of a plan(s) to prevent the pollution of storm water by minimizing the contact of storm water with potential pollutants.

Additional activities include responding to complaints and requests for information (between 500 and 1,200 telephone calls per month), performing site inspections (estimated at 40 percent of staff time), compliance management (estimated at 40 percent of staff time), maintenance of technical guidance, and training .

Workload

Over 19,600 industrial facilities potentially require coverage under the industrial storm water permit. To date, approximately 2,100 facilities have obtained coverage under the general permit.

The remaining backlogged applications that have been submitted indicate that coverage is not necessary, however, they must be entered into a permit tracking database. Several industrial storm water permit applications continue to be received each week. The Program received 777 construction storm water permit applications in 1994.

Over the last two years, program staff have responded to speaking invitations by giving 78 presentations to nearly 6,000 people on the construction storm water permit's requirements, and 38 presentations to nearly 5,000 people on the industrial storm water requirements. The Program administers three two-day workshops per year on the design of storm water detention basins, and four two-day workshops per year on the development of construction site erosion and sediment control plans. In addition, the Program staff publish a newsletter for industrial storm water permit holders with a mailing list of approximately 3,000 people, and a newsletter for construction storm water permit holders with a mailing list of approximately 11,000 people.

Current Resources

Currently, storm water permit fees will pay for 100 percent of the program costs. The MPCA received federal support in the past for storm water positions, however, that funding will stop in FY 1996. Revenue collected from permittees currently subsidizes 10 FTEs. Table 13 shows the Nonpoint Source Section staffing levels for this program.

Table 13

STORM WATER STAFFING

STORM WATER POSITIONS	STAFFING (FTE)
Supervisor	1
Storm Water/Wetlands	1
Storm Water Technical Staff	4
Marshall Storm Water Position	1
Duluth Storm Water Position	1
Clerical	2
	TOTAL 10.0

Trends

Enforcement for the Storm Water Program is generally initiated on a complaint basis. An increase in the rate of complaints has been observed and is considered to be the result of increased construction activities, and increased environmental awareness.

Since this is a relatively new program, long term trends are not available. It has been observed, however, that the more site visits that are made, the more non-compliance is recorded.

Appendix C

Subcommittee Rosters

Appendix C

Funding Options Subcommittee

Name	*Representing*
Kurt Soderberg, **Subcommittee Chair** Executive Director Western Lake Superior Sanitary District	*Western Lake Superior Sanitary District*
Sherry Munyon Director of Environmental Policy Minnesota Chamber of Commerce	*Minnesota Chamber of Commerce*
Mark Davis President Davisco International, Inc.	*Minnesota Agribusinesses*
Jim Nelson Corporate Engineer Faribault Foods	*Midwest Food Processors Association*
William Heaney Manager, State Legislative Affairs Northern States Power Company	*Minnesota Environmental Coalition of Labor and Industry*
Rebecca J. Flood Manager, Regulatory Compliance Metropolitan Council	*Metropolitan Council-Environmental Services*
David H. Senjem Rochester City Council	*League of Minnesota Cities*
Todd Prafke City Administrator City of Blooming Prairie	*Association of Small Cities*
Diane Jensen Midwest Program Coordinator Clean Water Action	*Environmental Community*
John N. Smith Director of Environmental Affairs S.B. Foot Tanning Company	*Central States Water Environment Association, Minnesota Section*
Nick Dragisich City Administrator City of Virginia	*Coalition of Greater Minnesota Cities*
Archie Chelseth Potlatch Corporation Northwest Paper Division	*Minnesota Business Partnership*
Mike Robertson Michael Robertson and Associates	*Task Force Chair*

Load-Based Fees Subcommittee

Name	*Representing*
William Heaney, **Subcommittee Chair** Manager, State Legislative Affairs Northern States Power Company	*Minnesota Environmental Coalition of Labor and Industry*
Jim Jackson Regional Manager for Environmental Affairs Boise Cascade Corporation	*Representing Minnesota Chamber of Commerce*
Kerman Love Minnesota Production Manager Del Monte Foods	*Minnesota Agribusinesses*
John Exner, Legal Counsel Midwest Food Processors Association	*Midwest Foods Processors Association*
Joe Stepun Manager of Environmental Services Western Lake Superior Sanitary District	*Western Lake Superior Sanitary District*
Rebecca J. Flood Manager, Regulatory Compliance Metropolitan Council	*Metropolitan Council - Environmental Services*
David H. Senjem Rochester City Council	*League of Minnesota Cities*
Nancy Larson, Executive Director Association of Small Cities	*Association of Small Cities*
Diane Jensen Midwest Program Coordinator Clean Water Action	*Environmental Community*
John N. Smith Director of Environmental Affairs S.B. Foot Tanning Company	*Central States Water Environment Association, Minnesota Section*
Dan Behrens City Engineer, City of Faribault	*Coalition of Greater Minnesota Cities*
Archie Chelseth Potlatch Corporation Northwest Paper Division	*Minnesota Business Partnership*
Mike Robertson Michael Robertson and Associates	*Task Force Chair*

Appendix D

Task Force Costs

Appendix D

TASK FORCE COSTS

Here is a summary of the approximate costs incurred by the MPCA to support the task force:

• Staff time (70 MPCA staff working over 4,600 hours)	$110,000
• Consultant (Arthur Andersen, LLP)	$50,000
• Mailings and other meeting-related expenses	$1,350
• Printing of final report	$1,200
TOTAL	**$161,550**

Appendix E

MPCA Staffing Efficiencies and Best Practices

Appendix E

Point Source Program Staffing Changes and Efficiencies

[FTEs from 1990 to 1995]

	1990	Efficiencies to Absorb Staff Losses		1995
		#1 Grant phase-out	-31.5	
		#2 Reorganization	-11.0	
Program Management/ Supervisors	14.3	#3 Gen. Permits	-2.0	9.3
Administrative Support	16.5	#4 Limit Activities	-1.5	15.5
Fiscal Support	22.5	#5 Tech. Review	-3.0	1.6
Data Support	3.5	#6 Permit QAT	-0.5	7.1
Permitting	33.0	#7 Travel	-0.5	22.0
Compliance/Enforcement	27.0	#8 Regionalization	2.0	24.5
Water Quality Standards	17.2	#9 DELTA**	3.0	16.0
Training and Assistance	9.0	#10 Backlog	-1.5	7.0
		#11 Reduce Insp.	-2.0	
		#12 Program Dev.	-3.0	
		Total	-51.5	
Total	143.0			103.0*

* 11.5 Staff are added for temporary grant work (e.g. flood study, compliance assistance study, Russia Project) and through non-point source funding flexibility.

** Agency DELTA requirements will ultimately add 3 more FTE's.

MPCA WATER QUALITY DIVISION
BEST PRACTICES AND EFFICIENCIES IN PLACE

1. Shift From Grants to State Revolving Fund (SRF) {SAVINGS OF 31.5 FTE'S}

The single largest impact on the Point Source Permitting Program has been the phase-out of the federal construction grants program. While we have moved on to the SRF as a source of low interest loans for municipal wastewater treatment facility construction assistance, the SRF does not have the far reaching financial support to the permitting program that the grant program did have. To illustrate the point, we have included the following table to show staff reductions in the permitting program from 1990 to 1995, as a result of the shift from the grant program to the SRF program:

* STAFF *	* FTE'S REDUCED *	* TASKS ELIMINATED (or reduced effort) *
Grant Managers & Prog Develop (Two Supervisors)	23.0	Federal/State grant project management Grant Program and Rule Development
Engineers	5.0	Federal/State grant project review
Soils/Hydrologists	0.5	Federal/State grant project review
Planners (Env Review)	3.0	Federal/State grant project review SRF environmental reviews reassigned

Please note that these staffing reductions occurred over the course of approximately five years, and this time period was bridged by two reorganization periods (see section #2 for more on the reorganization) of the Water Quality Division. It is difficult to separate the federal grant wind-down and the reorganizations because both were very intertwined. The remaining discussion in this section will describe only organizational changes that impacted the reductions from the grant funded staff and the SRF funded staff.

During a 1990 Division reorganization (and normal attrition) the grant manager and program development staff had been reduced from 21 down 10 from early in that year (also one supervisor position was eliminated at this time) and were shifted into the new Municipal Section Financial Assistance Unit. This unit also included our SRF coordinator, and it was assigned to manage the remaining federal grant projects while trying to complete them as quickly as possible to stretch the grant administrative funds to support our permitting functions and to manage our initial SRF projects. In addition, this staff was charged with rewriting the SRF rules, and to streamline that program as much as possible for the future. In essence, to write their own wind-down plan and to automate the SRF review process as much as possible.

The SRF rules were changed significantly in the 1992 revision. We recognized that the Agency no longer had the financial responsibility for this program like we did in the federal grant program, so many things like application reviews and engineering contract reviews were written out of the rule. Eligibility under SRF was changed to allow essentially all costs associated with sewer systems and treatment facilities, an item which may seem small but had taken immense amounts of engineering review time under the grant program. Things that were more closely tied to administration of the loans were transferred to the Public Facilities Authority (PFA). We also negotiated very well with EPA and completely revamped our environmental review process in the rule, so that our engineering/technical staff now complete the necessary review (unless it triggers an EAW which is completed by the MPCA environmental review office). The environmental review change also eventually eliminated the 3 FTE's of planners.

By the time of the Water Quality Division's 1994 reorganization, the transition to eliminate the Financial Assistance Unit was complete. More positions were eliminated (11 FTEs), with some of the work redistributed. The municipal engineering staff now oversees the limited project specific SRF administrative work. The remaining few (less than 10 at that time) federal grants were now managed by a permit writer (formerly a grant manager).

2. Reorganization {SAVINGS OF 11 FTE'S}

The Water Quality Division has had two reorganizations since the fall of 1990, and both had major impacts to the Point Source Permitting Program. In the fall of 1990, the Municipal Section (and a separate Industrial Section) was created from more "functional" oriented section groups (i.e. engineers, grant managers, enforcement staff, permit writers etc.). The section had five units, three Compliance Units, a Financial Assistance Unit (the description of the phase-out of this unit was in section #1), and the Operations and Training Unit.

The Municipal Compliance Units are geographically based, with multi-functional teams of supervisors, engineers, enforcement staff, and permit writers (one unit has soils/hydrologist position), to work on the permitting/project review functions together for our five regional office areas in the state plus the Metro region (Unit 1 - Detroit Lakes & Brainerd, Unit 2 - Rochester & Marshall, Unit 3 - Duluth and Metro). This reorganization effort resulted in a number of efficiencies, largely dealing with a focused geographic area. This improved areas such as:

- City's working with a more focused and limited number of central and regional office staff
- Less travel for staff (vs previously having projects possibly from Crookston to St. James)
- Fewer staff working with consultants that tend to have work in regional areas.

While it is difficult to give a number of FTE's saved in this effort to become more efficient, we have received many positive comments from our permittee's as we work with them during inspections, and construction project reviews.

The Operations Training Unit has seen a slow staff reduction from 1990 to 1995 (in the 1994 reorganization was renamed the Training and Information Management Unit) from 9 down to 5 FTE's. This reduction was due things like less review of operation and maintenance manuals in

the SRF program versus the federal grant projects, a change in 1993 to no longer require stabilization pond facilities to call into MPCA for permission to discharge in the spring and fall, but rather to change the process to be a permittee responsible system for discharging during the appropriate time periods, and changing the system for handling bypass phone calls from going directly to the Agency and going through the Minnesota Duty Officer.

The second reorganization of the Water Quality Division included merging the existing Municipal and Industrial Sections into the Point Source Compliance Section in late 1994. This had also had an impact on the staffing of the section, particularly the "management structure" of the section. The reorganization resulted in the reduction of one section manager FTE, two industrial supervisors FTE's. It also impacted the administrative support team for the PSC section by reducing 1 administrative supervisor FTE, and 3 clerical FTE's. The actual impact of these reductions has been very difficult for both the section "management team" and the Division "management team" to assess as yet because of the number of changes and the number of special projects (like Blue Ribbon & DELTA) and blackhole projects that the section has managed over the past 11 months.

3. General Permits {SAVINGS OF 2.0 FTE'S}

General permits have really allowed us to deal with discharges that needed a permit, but were not being worked on. Applications for noncontact cooling water, petroleum pumpouts, and potable water treatment plant backwash discharges were held for a long time so sufficient numbers were generated to justify the writing of a general permit. (MPCA received program authority from EPA to issue general permits in 1987). Based on the 251 general permits we currently administer and the amount of time necessary to process a general permit (estimated to be 79 hours), the estimated annual savings in staff time using this permitting tool is approximately 2.0 FTE'S.

4. Activities That Require Permits Which Are Currently Not Being Done {SAVINGS 1.5 FTE'S PLUS}

There are approximately 190 unsewered communities in Minnesota according to our current records. It is difficult to estimate the number of staff FTE's it would take to work with these cities in a permitting process setting, because our normal experience is that it takes a significant amount of time to facilitate an acceptable wastewater management solution.

By not doing disinfection water testing permits (new water lines must be disinfected and tested prior to use), the program may be saving an estimated minimum of 1 FTE in engineering and permitting resources. This considers a tech review/permit issuance process which would be similar to the current process used for sewer extensions.

Other states issue general NPDES permits for draining home swimming pools in the fall. We have chosen to not require permits for this activity in Minnesota, since we believe that the impact

of the discharge is either very small or nonexistent. If we would begin permitting this activity, a new general permit could be used and may involve 0.5 FTE's.

5. Change in Technical Review {SAVINGS OF 3 FTE'S}

Early on in the SRF program, a decision was made to almost eliminate the review of change orders on the construction projects. Because change orders are changes of the approved plans and specifications for the treatment facilities, we determined that we did need to review and approve only change orders impacting either the interim or final treatment capability of the wastewater facilities. This time savings was a net reduction of 1 FTE.

Approximately 1.5 FTE's of soils/hydrologist technical review time has been saved from reducing groundwater review on stabilization ponds, and shifting soil suitability reviews for clay lined ponds and some sludge site approvals to the current engineering staff.

The reduction in effort on construction inspections and technical program development has helped to issue permits. It is estimated that 0.5 FTE of technical review staff has been redirected to this effort.

6. Permits Quality Action Team {SAVINGS OF 0.5 FTE'S}

This was a cooperative effort with EPA to reduce federal "oversight" in all areas of the permit program. In general the process was designed to eliminate duplication of efforts where ever possible. Examples of this are things like: EPA no longer reviews the limits set in individual permits and instead concentrates their efforts on reviewing our overall standard setting process, and EPA also no longer does real time reviews of enforcement actions.

When we initially set up the permit fee program, an important factor was time necessary to negotiate with EPA during the major permit issuance process. Now we may only touch base with them on the phone on permit issues for variances, interstate water and other controversial permits. Overall, the reduction of work with EPA is estimated to save 0.5 FTE's.

7. Travel Restrictions And Overall Reduction In Supply And Expense {SAVINGS OF 0.5 FTE'S}

According to Agency records, the Water Quality Division had an increase in in-state travel from FY93 to FY94 of 12.4% which is an increase of approximately $16,346. Out-state travel was decreased by 20.1% which is a savings of approximately $32,448 over the same period. The total travel expenses for the division were decreased by 7.7% or $16,102. This is the largest decrease of all the divisions. The Ground Water and Solid Waste Division had a total reduction of 4.1%. The Air Quality and Hazardous Waste Divisions both had net increases in their total travel expenses. The Division has also shifted supply and expense dollars to salaries over the past five years to maintain staff, by reducing their overall expense budgets (in addition to travel).

The net positive impact of this results generally in our staff staying within the state working on inspection and permitting functions. The net negative impact is that most of our professional development training is generally received at conference and course offerings outside of the state, and may impact our ability to stay up with current technology changes in the wide variety of jobs we have in our Point Source permitting program.

8. Regionalization {ADDITION OF 2 FTE'S}

In the past year, Water Quality had to absorb the cost of two regional staff positions as the Agency converted "indirect" funded regional positions to direct program funding. This decreased our overall program funding by 2 FTE's. The Water Quality Point Source Permitting program has 8 FTE's in regional offices (with one vacancy equal to a total of 9 FTE's).

A vast majority of the compliance inspections are already performed in our regional offices. We would expect some time savings on such tasks as construction inspections if this activity was performed out the regional office. We are continuing to evaluate moving other activities such as permit writing, technical review, and standards development out to the regional offices. (Note: Highly regionalized states like Wisconsin have budgets twice the size of Minnesota's due to the additional resources to support regional staff).

9. DELTA {ADDITION OF 3 FTE'S}

The Water Quality Division has had to absorb the cost of holding 3 new positions to technically support the DELTA program thus far. Ultimately, we have been told that we will need to provide 6 FTE's (or an additional 3 FTE's) to implement and run the system.

10. Maintain Permit Backlog { SAVING OF 1.5 FTE'S}

Generally it has been our experience that an increased backlog reduces efficiency, since permittees with expired permits (especially industrial permits) keep calling to check on the status of their permit. Expired permits may also slow down compliance and enforcement, since it is sometimes necessary to issue a new permit to facilitate the correction of noncompliance. Permittees experience a "cost" in not having an updated permit for insurance purposes.

11. Reduce Inspections {SAVINGS OF 2 FTE'S}

Since 1990, we have significantly reduced the engineering staff time spent on construction site visits and activities. The number of staff hours reduced on this activity was previously shown in the document "Technical Review Opportunities" presented at the November 7, 1995 Task Force meeting (and reflected an actual net change in this activity of approximately 2.2 FTE's). Again, we are actually completing this savings action into a deficit type mode, because we are not currently completing all the inspections required in state rule for our SRF projects.

12. Program Development Guidance {SAVINGS OF 3 FTE'S}

Timely rulemaking activities and preparing or revising guidance documents have both been almost completely suspended since the program reductions which occurred in 1990. Rule updates and guidance which have been discontinued include things not participating actively in the current groundwater rule revisions, to guidance activities we have suspended such as front end document packages that we used to provide for the SRF projects, and work to update technical guidance documents like the stabilization pond water balance criteria. In addition, resources to negotiate further with EPA on SRF program requirements have been lost in this staff reduction.

MPCA WATER QUALITY DIVISION
PROCESS IMPROVEMENT ACTIVITIES SUMMARY
11/17/95

Regulatory Action Team
The Program Mangers who are responsible for permitting and enforcement activities, a member of the Attorney General staff, and a Minnesota Pollution Control Agency (MPCA) Regional Manager make up the Regulatory Action Team (RATS). The primary roles of the RATS is to ensure consistency between MPCA Programs' approach to civil and criminal enforcement and to provide training where needed.

St. Thomas Management Training
The 1995-6 management training provided by St. Thomas College has been designed to provide all MPCA managers and supervisors with the latest information and techniques on management, incorporate customer needs, and to develop skills to efficiently and effectively carry out MPCA programs.

Point Source Regional Work Plans
Mutually agreed upon detailed annual work plans between MPCA Central Office Program and the Regional Program are completed to define the schedules, roles and responsibilities of staff from each regional office. These work plans establish the inspections to be completed, enforcement areas to be pursued, training to be accomplished and other activities required.

Water Quality Excellence in Performance Annual Awards
Annually, the Division staff nominate co-workers who best exemplify the goals of our Division's Mission/Vision/Values (see attached). This is a non-monetary recognition program that has great meaning and value to staff. Categories include: Mentor, Positive Attitude/Humor, Technical Accomplishment, Process Improver, External Customer Service, Internal Customer Service, Grace Under Pressure, Outstanding Team, Partnership, Unsung Hero, Rookie of the Year, and Most Valuable Pollution Fighter (overall award). The program keeps us focused on the important aspects of our mission and service responsibilities during the year.

Permit Quality Action Team
The MPCA Water Quality Division staff, have participated with U.S. Environmental Protection Agency (EPA) Region 5 and the other Region 5 States, in the Permit Quality Action Team (PQAT), which is an ongoing National Pollutant Discharge Elimination System (NPDES) permit improvement effort. The main issue to date was EPA oversight and review, and in the states opinion, "second guessing" proposed permits. After a great deal of discussion, it was agreed that EPA would reduce or eliminate permit by permit review of major permits, and hold the states accountable for program activities in annual program reviews. At this point, the MPCA will only consult with EPA on particularly complex or "big issue" permits, but otherwise the day to day issuance of permits is left up to the MPCA.

Regional Roles Report and Policies
In 1992, the MPCA completed a study of the role of regional offices in program delivery and recommended a shift of 50-60 staff to the regional offices. This process resulted in: greater accessibility to MPCA staff; faster response time to inquiries; and emphasis on issues unique to specific areas of the state.

Environmental Management Council
The top agency managers, all media, meet twice monthly to coordinate decision-making on major program and environmental policies with all staff, media and customer concerns factored in. This enhances cross-divisional decision-making and communication and allows for a more efficient and timely upper-management decision-making flow for the MPCA.

Tier 2 Teams
These teams staff the Environmental Management Council and are made up of staff, managers and supervisors from each program area; teams are: Regulatory Directions, Geographic Targeting, Environmental Indicators, Risk-based Decisions, and Strategic Planning. These teams coordinate major strategic issue progress on all agency priorities and allows for full staff input on recommendations.

New Employee Packets/Training
New employees are immediately given packets containing the Water Quality Division Mission/Vision/Values, our program priorities, organizational charts and program history; they are each assigned a division mentor. This program allows new staff to become effectively integrated into their program with an understanding of division-wide issues an how their job relates to the "bigger picture."

Comprehensive Customer/Product Training and Tool Incorporation
The MPCA is initiating long-term efforts to focus on customer service and satisfaction by asking: What do we do, for whom?, What do they want?, and How can we improve their satisfaction with our performance? As the MPCA incorporates changes resulting from this process, we anticipate: improved outcomes, more user friendly products and processes.

Administrative TQM Process
The Division undertook a Total Quality Management (TQM) process evaluation of our administrative support staff roles and functions. The result of this process was to streamline the division administrative staff, eliminate a supervisor and create a combined administrative staff unit serving two Water Quality sections.

Leaky Pond Permitting Process
This is a quicker desk top evaluation of the pond performance, influent received vs. effluent discharged, depth, etc., over time to determine a gross approximation of whether or not the stabilization pond is leaking, has surplus capacity, or is steady state; and what course of action should be taken or incorporated in the permit. Pond review guidance was developed to establish a clear consistent enforcement strategy to determine when a pond system is in compliance and expedite the process for the enforcement and permitting staff to deal with leaking, surplus capacity, and steady state ponds enabling the permits to be reissued.

Bypass Policy
Changes made to the municipal wastewater Bypass Policy in 1994 have improved the efficiency and consistency of the MPCA's dealings with discharges of inadequately treated wastewater from collection systems and treatment facilities. Improvements to the MPCA's policy which allow for improved tracking and notification efficiency in the event of a true emergency include:

- All bypasses reported to the Minnesota Duty Officer within one hour of onset
- Consistent bypass sampling requirements
- Public notification requirements for impacted residents and resource users
- MPCA tracking database allows for efficient identification of chronic bypass problems

Spray Irrigation Policy
A spray irrigation task force was formed to evaluate and build on existing permits where spray irrigation on land is used as a method of wastewater treatment. The primary goal was to develop "divisional" permit language which could be tailored to apply to municipal, various categories of industrial wastewater, and manure, resulting in drafting permits more efficiently.

Sludge Permitting Process
The MPCA is now streamlining the approval of municipal sludge spreading sites by requiring sludge generators to notify local governments of sludge site locations and by reducing site reviews by staff from once every five years to one initial review only.

Compliance Inspection Forms
The Water Quality Division's Compliance Monitoring Inspection (CMS) forms and cover letters were revised in 1994 to eliminate unnecessary repetition and improve the document's "user friendliness" for the Permittee. The revised form is considerably shorter and more straightforward, the deficiency/corrective action sections are clear and concise, and the facility's compliance rating is prominently featured.

Basin management
Basin management is a coordination framework that tailors and targets point and non-point water quality program efforts to the particular needs of specific water resources and geographical areas. Basin management will improve the cost-effectiveness of our programs by targeting staff and budget resources to the pollution sources with the greatest environmental impact in a given geographical area.

Enforcement Forums
The Enforcement Forum is a formal process whereby staff, supervisors and attorneys meet to discuss and make decisions on all formal enforcement actions, including determination of the type and extent of follow-up needed to resolve noncompliance issues. The forum contributes to the overall integrity of enforcement programs by increasing the quality of decisions, ensuring fairness in the application of program rules and enforcement tools, improving efficiency through staff's ability to draw on past cases and the knowledge of other experienced staff, thus saving time and increasing staff consistency in inspections and application of the rule.

APO Guidelines and Forms
The Commissioner of the MPCA may issue an Administrative Penalty Order (APO) for violations that can be corrected quickly and require a penalty that is not greater than $10,000. This unilateral action allows quick resolution of violations for both the regulated party and the MPCA staff, thus avoiding lengthy negotiations and more expedient correction of violations, thus improving the environment in a timely fashion.

Enforcement Manual Training Program
The MPCA's new 1995-6 Enforcement Manual and Training Program is for all new enforcement and compliance staff and for ongoing reference for existing staff. This program ensures that the regulatory program is fair, equitable and consistent in the way it administers environmental regulations throughout the MPCA, and ensures that all staff are properly trained upon hire, thus improving staff efficiency and allowing staff to more quickly respond to customer questions and concerns.

EPA Performance Partnership '96 Flexibility
The Water Quality Division recently negotiated an innovative annual program agreement with EPA Region 5. This agreement replaces the federally based annual work plan and gives the state more flexibility to manage its water programs based on state priorities. Through the agreement, EPA and the state recognize that the Basin Plans should serve as the work plans for state activities and that federal resources should support state priorities where possible. In order to free up resources to dedicate to development of the basin plans, EPA agreed to reduce the level of oversight in permitting and enforcement. EPA agreed to extend other mandatory reporting deadlines by several years as well. This agreement was undertaken because of EPA's assessment of our program as a high quality and high performance program.

DELTA

IMB:

Information Management Board (IMB) is a team of managers representing all divisions and is the Delta "Board of Directors." They make the administrative and policy decisions on DELTA and other data management-related issues for the MPCA.

PIKES:

This is the Water Quality Division's Delta design team, made up of staff, supervisors and managers representing all sections and programs in the division. This coordinated team will design a computer management system that will allow the division to more effectively complete and track activities.

WQD Word Processing Pool

The Water Quality Division uses a centralized pool of word processing experts to produce permits, letters, and other documents. The pool manages fluctuating work loads between sections and assures higher level of quality and consistency in the documents produced for our customers.

Strategic Planning Priorities and Work Plans

The MPCA uses a strategic planning process which uses inputs from staff and external customers to identify priorities and to develop work plans to achieve those annual program priorities. The process directs resources to the highest priorities and improves coordination and information exchange on common agency-wide issues.

Focus on Improvement

Focus on Improvement (FOI) is the strategic planning process the division uses to set the future direction of water quality programs. A team of supervisors, managers and staff-recommend priorities for the coming year based on the ideas presented through a formal staff feedback process (15/5 reports), the MPCA strategic plan, and the division's Mission/Vision and Values. The planning process directs resources to the highest program priorities and allows for the establishment of realistic Division work plans for the coming year.

15-5 Reports

15-5 reports are prepared by all staff, supervisors and managers in the division. The reports take 15 minutes to prepare and five minutes to review and include a summary of work accomplished, how that effort reflects the Mission/Vision and Values of the division and recommendations for improvements or new opportunities.

Mission/Vision and Values

Were created by the FOI team with input from all staff in the division and reflect the division's goal, a vision of how that goal can be achieved and the values that serve as the foundation. This tool is used as a yard stick to measure the success of our efforts.

Priority-Setting Process

The management team, based on recommendations from 15-5 reports, the agency strategic plan, priorities set by the legislature and Congress, and the division's Mission/Vision and Values determine the priorities for the upcoming year. Each priority is given a clearly articulated goal, a work plan, and targeted resources. This process allows managers and staff to say no to low priority activities, targeting resources to the highest priorities for that year. (See reverse side of Mission/Vision/Values statement attached).

Preprinted DMRs

Preprinted monthly discharge monitoring report (DMR) forms are generated for each permitted point source facility with their specific monitoring and reporting requirements. These forms have reduced Permittee monitoring and reporting errors, reduced MPCA data entry time, and improved MPCA data entry accuracy.

Annual Certificate of Commendation

Each year at the MPCA Annual Operations Seminar, permitted facilities with outstanding compliance during the previous year are recognized by awarding them a Certificate of Commendation. This awards program has proven to be an effective incentive for facility owners, elected officials and operators to improve and maintain excellent facility performance.

Customer Service Satisfaction Surveys

Direct customer input for the Operator Training and Certification Program is obtained through their participation in training course planning committees, certification examination development and validation committees, and customer service surveys conducted at training courses. The information obtained from these activities has allowed us to continuously improve our training curriculum, delivery methods, certification exams, and to better meet the needs of Minnesota Operators.

AEPS Survey

The Division annually undertakes a formal "Annual Evaluation and Planning System" (AEPS) Survey of all municipalities in the state to establish short and long-term facility needs. This is a highly effective planning and management tool for the MPCA, funding agencies, policy-makers and municipalities.

Appendix F

Load-Based Fee System

Appendix F

Load Based Fee System

Background

As discussed in the "Permit Fee System" section of the report, models for a load-based permit fee system were evaluated by the task force. This is a description of those models.

In a load-based system, fees are calculated according to the type and amount of pollutant discharged. Two separate models for a load-based fee system were evaluated by the task force to address the special needs of municipal and industrial permittees.

In general, the following formula for a load based model was discussed, with the exceptions described below for the municipal and industrial models:

Load Based Fee =[(Base Fee) + (Pollutant Load) ($/Kilogram)*]**

* The fee rate ($/kilogram) is the inverse of the limited concentration for each pollutant. The formula is adjusted annually to capture the correct amount of fees approved for the program.

** The annual fee is averaged with the two previous years of fees (defined as a rolling three-year average)

Because the inverse of the permit limit is a factor of the fee, the lower a given limit, the higher the fee rate will be. This is a way of scaling the relative toxicity of substances, as well as the sensitivity of the receiving waters.

Loading fees are calculated according to the substances which are limited in an individual facility's permit. Substances which have limits based on secondary water quality standards have not been included. Secondary criteria have been excluded because there were several facilities that were getting unreasonably high fees based only on secondary standard pollutants (i.e. chlorides, iron).

Municipal Load Based Model Assumptions

- Two different models were evaluated for municipal permittees: 1) a fee for all pollutants limited in a permit, and 2) a fee for only Biochemical Oxygen Demand (BOD), a common discharge parameter for municipal permittees.

- Municipal permittees include all domestic permittees including major facilities (approximately 50 with flow rates greater than 1 million gallons per day (mgd)), minor facilities (approximately 600 with flow rates less than 1 mgd), State Disposal System permittees (approximately 30 which land spread wastewater), and water treatment plants with permitted discharge points (approximately 50 sites) for a total of about 730 permittees.

- Since many facilities generate such a small amount of loading, a pure load-based fee system would not recover enough funds to cover the cost of their permit issuance. Therefore, a base fee component was added into the fee model. The fee model calculates total fees as the sum of a base fee plus a load fee. Base fees were set equal to $2,000 for major facilities and $500 for minor facilities which was estimated to reflect minimal effort for average permit issuance and the relative ratio of permit fees to total program funding.

- Individual municipal storm water permits (Minneapolis and St. Paul) are $7,500 per permit.

- General permits are $260 per permit.

- Cap to limit maximum fees is equal to $3.00 per person per year. This cap is recommended to protect small communities, who would otherwise have a much higher cost per capita than large cities. At current fee levels, this cap will not significantly impact costs to other permittees.

- Three-year averaging is recommended to be used as part of the new fee system. Three-year averaged fees are calculated by averaging the current year's fee with the previous two years of fees. Three-averaging will help to smooth the transition to a new fee system, and reduce significant fee changes resulting from high loading rate years.

- Sludge land application site fees are recommended as part of the load-based model. Currently, no fees are collected for the service provided in site approvals. Models used a fee of $100 per site application which was estimated to generate $50,000 from 500 sites. It was hoped that keeping this fee low would not discourage the beneficial reuse of sludge.

- For facilities where no effluent pollutant data exists, such as land application facilities, effluent BOD was estimated based on 0.17 pounds of BOD per person per day and a 90 percent removal efficiency through treatment. Actual data would be put in the model when it becomes available.

Industrial Load Based Model Assumptions

- Unlike municipal permittees, there is not one common pollutant discharged among industrial permittees. The industrial load-based model, therefore, calculates a fee for all pollutants limited in a permit.

- An adjustment was used in the industrial model for high volume, low pollutant load dischargers. The rate of fee ($/kilogram) for mine pit dewatering (when mine pit is discharging at less than half of its permitted limits for all parameters) was set equal to one-quarter the rate of other dischargers and noncontact cooling water was set at a rate of $.016/million gallons. These reductions were included to compensate disproportionately high volume dischargers, with low concentrations of pollutants, from excessively high fees.

- The base fees are $2,500 for majors, $1,000 for minors, and $1,750 for land application facilities which was estimated to reflect minimal effort for average permit issuance and the relative ratio of permit fees to a total program funding. In addition, land application sites were charged at a higher rate to account for staff time on these permits and since they do not have a discharge load component for their wastewater. This covers primarily food processing and other operations that have managed land treatment for process wastewater. It does not apply to all SDS permits (i.e. infiltration basins for storm water).

- Three-year averaging is included.

- General permits are $290 per permit per year.

- Other than cooling water rates, a minimum rate of $0.02 per kilogram was used for this model. A maximum rate cap was set at $2,500.

- In cases where a permittee has two limits in effect for a similar substance (e.g. for both biochemical oxygen demand (BOD) and chemical oxygen demand (COD), only one was used to calculate fees.

Appendix G

Time Reporting Form

		WATER QUALITY PROGRAM TIMESHEET CODES							
FUNCTION	#	Task	SRF	Municipal	Industrial	Stormwater	Feedlot	ISTS	Watershed Mgmt.
Major Permits-NPDES	1		S1	M1	I1	P1	G1	N1	W1
Minor Permits-NPDES/SDS	2		S2	M2	I2	P2	G2	N2	W2
Other Permits	3		S3	M3	I3	P3	G3	N3	W3
Compliance Inspections	4		S4	M4	I4	P4	G4	N4	W4
Enforcement	5		S5	M5	I5	P5	G5	N5	W5
Informal Compliance	6		S6	M6	I6	P6	G6	N6	W6
Customer Training	7		S7	M7	I7	P7	G7	N7	W7
Customer Certification	8		S8	M8	I8	P8	G8	N8	W8
Customer Inquiry	9		S9	M9	I9	P9	G9	N9	W9
Information Management	10		S10	M10	I10	P10	G10	N10	W10
Clerical Support	11		S11	M11	I11	P11	G11	N11	W11
Administrative/Personnel	12		S12	M12	I12	P12	G12	N12	W12
Fiscal Administration	13		S13	M13	I13	P13	G13	N13	W13
Planning/Program Develop.	14		S14	M14	I14	P14	G14	N14	W14
Project Management	15		S15	M15	I15	P15	G15	N15	W15
Technical Assistance	16		S16	M16	I16	P16	G16	N16	W16
Rules	17		S17	M17	I17	P17	G17	N17	W17
Monitoring-Ambient	18		S18	M18	I18	P18	G18	N18	W18
Monitoring Site Specific	19		S19	M19	I19	P19	G19	N19	W19
Spills Mgmt.	20		S20	M20	I20	P20	G20	N20	W20
Employee Development	21		S21	M21	I21	P21	G21	N21	W21
Employee Leave	22		S22	M22	I22	P22	G22	N22	W22
Special Projects	23		S23	M23	I23	P23	G23	N23	W23
Public Inquiries	24		S24	M24	I24	P24	G24	N24	W24
Legislative Activities	25		S25	M25	I25	P25	G25	N25	W25