

BEYOND ENFORCEMENT?

Enforcement, Compliance Assistance, and Corporate
Leadership Programs in Five Midwest States

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**Enforcement, Compliance Assistance, and Corporate Leadership
Programs in Five Midwest States**

Environmental Law Institute

Tellus Institute

National Academy of Public Administration

*Beyond Enforcement?
Enforcement, Compliance Assistance and Corporate Leadership Programs
in Five Midwest States*

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Disclaimer

All opinions expressed herein are those of the authors and not necessarily those of their institutions, the Environmental Law Institute, the Joyce Foundation, or the collaborating state environmental agencies, their officials, or staff. Errors or omissions are the sole responsibility of authors.

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Acronyms

The following acronyms are used in the main body of the report.

ACES	Agency Compliance and Enforcement System (IEPA)
APO	Administrative Penalty Order
CEM	Continuous Emissions Monitor
CET	Compliance Enforcement Team (IDEM)
CMI	Clean Michigan Initiative
CPM	Core Performance Measure
CTAP	Confidential Technical Assistance Program (IDEM)
DEQ	Michigan Department of Environmental Quality
DMR	Discharge Monitoring Report
DNR	Wisconsin Department of Natural Resources
ECOS	Environmental Council of the States
EMS	Environmental Management System
EPA	United States Environmental Protection Agency
FY	Fiscal Year
IDEM	Indiana Department of Environmental Management
IEPA	Illinois Environmental Protection Agency
IT	Information Technology
MESB	Michigan Environmental Science Board
METS	Multimedia Enforcement Tracking System (IDEM)
MPCA	Minnesota Pollution Control Agency
NCA	Noncompliance Advisory
NEPPS	National Environmental Performance Partnership Program
NGO	Non-governmental Organization
NOV	Notice of Violation
OPA	Office of Planning and Assessment (IDEM)
P2	Pollution Prevention
PBT	Persistent Bioaccumulative Toxin
PPA	Performance Partnership Agreement
PPG	Performance Partnership Grant
SEP	Supplemental Environmental Project
TMDL	Total Maximum Daily Load

Executive Summary

This study identifies the structural and management prerequisites for sound integrated environmental compliance programs. Integrated compliance programs require unified planning and management of compliance activities and rely on targeted, priority-based problem solving. Integrated compliance programs also use the full range of compliance tools such as inspections, enforcement, compliance assistance, and leadership incentives, and require careful evaluation to determine which tools produce the most effective results for solving various types of environmental problems. These integrated strategies are critical for state environmental agencies to effectively address our nation's current environmental problems, particularly given their increasingly severe funding constraints.

This study compares the compliance programs of Illinois, Indiana, Michigan, Minnesota, and Wisconsin with these prerequisites and finds that meeting all of the prerequisites has been a challenge for these states. The study finds that each state has a vision of integrated compliance that comports with the principles identified here. Each state also has identified needs for achieving its vision and has undertaken strategic planning to set priorities, target resources, and direct staff. In addition, some states have begun developing key capabilities. However, the study finds systemic weaknesses in the states' compliance programs. The study reveals that integrated compliance programs also impose demands on environmental organizations in their watchdog capacity and on state legislatures, which must authorize funding for investments in information systems and institutional capacity to ensure that state agencies can produce better levels of compliance.

State environmental agencies need to maximize environmental compliance

Maximizing the regulated community's compliance with environmental laws and regulations is a primary goal of environmental regulatory agencies. These laws and regulations are designed to achieve a baseline level of environmental and health protection, and compliance by the regulated community determines the extent to which intended levels of protection are actually achieved. Environmental laws and regulations also establish self-reporting requirements for regulated entities, and the agencies are substantially dependent on such data to evaluate substantive compliance and environmental conditions. Thus, even compliance with "paper requirements" is critical to effective priority-setting, resource allocation, and general management by environmental agencies.

An environmental agency's *compliance program* is the set of actions and procedures used to verify, encourage, and ensure that regulated facilities maintain or come into compliance with environmental laws, regulations, and, when required, permits. Typical compliance programs include inspections, monitoring, outreach, reporting, record reviews, compliance or technical assistance, negotiated cleanups, and formal enforcement actions.

The term *compliance program* implies a coordinated set of actions conducted by a regulatory agency. In reality, such coordination is rarely achieved. Compliance programs tend to be decentralized in most environmental agencies. Typically, multiple media program offices within an agency are involved, as well as the agency's pollution prevention/technical assistance office,

its enforcement office, and its legal counsel or attorney general's office. Offices responsible for preparing permits, writing regulations, setting standards, and making grants may also be involved in activities designed to improve compliance. In most state agencies, these functions have historically operated with great autonomy and have only had episodic or ad hoc coordination.

Traditionally, compliance has been nearly synonymous with *enforcement*. This approach reflects the view that policing and deterring violations are the essential core of environmental agencies' activities and that other compliance activities are either (1) secondary and dispensable or (2) second-best compromises made to accommodate the realities of limited resources.

Pressures to integrate state compliance programs

In recent years, state environmental agencies have been pressured to adopt more integrated approaches to compliance. Integrated compliance involves a change to unified compliance planning and integrated management of compliance activities across historically distinct offices and programs. It relies on targeted, priority-based problem solving, and using a full range of compliance tools such as inspections, enforcement, assistance, and incentives in a considered and systematic way. It also requires careful evaluation to determine which tools produce the most effective results for solving various types of environmental problems.

These forces of change include the need to address previously unregulated pollutants, non-point sources, and new sectors; resource constraints and increasing agency responsibilities, including growth of the regulated universe; legislative and executive mandates for compliance assistance and performance-based management; and the need to apply the best current knowledge about the sources of noncompliance and effective management. From the more than 100 interviews and the documentary research conducted for this study, we received strong confirmation that our portrayal of these forces of change is substantially correct and that there is a strong imperative for state environmental agencies to adopt integrated compliance programs.

Ad hoc changes to state programs

State environmental agencies have responded to pressures for change, but they usually act in an ad hoc manner rather than in a strategic or coordinated way. Over the past decade, they have begun to devote increasing resources to experimentation and have adopted a more varied set of compliance activities. Significantly, these new compliance initiatives have focused in part on eliciting voluntary *leadership* or *beyond-compliance* behaviors, as well as on compliance or technical assistance and outreach to the regulated community.

Over the past several years, state compliance assistance services, such as publications and confidential consultations and initiatives promoting beyond-compliance behaviors have proliferated. A number of states have adopted changes to allow self-auditing, offer more opportunity for negotiation, and accept no-penalty resolutions of self-discovered violations.

States, as well as the U.S. Environmental Protection Agency (EPA), have begun to focus compliance activities on certain sectors, usually chosen on the basis of environmental problems that deserve high priority. Most recently, a number of states have implemented *leadership programs*, which typically offer agency recognition *and* regulatory benefits such as expedited permitting or compliance self-certification in return for good compliance history and beyond-

compliance commitments on the part of participating facilities. These state efforts have often coincided with EPA's Project XL. They have been established to test regulatory innovations and have largely preceded EPA's National Performance Track program, which embodies the same concepts.

Five principles for an integrated compliance program

From these largely ad hoc changes in state compliance programs, some agencies and researchers are beginning to assemble the outlines of the elements needed for an effective integrated compliance program. This new understanding, or model, is admittedly emerging. There are differing views on the relative weights that should be given to various compliance tools and their utility, as well as how to measure their results and when to apply them. For example, EPA's view of integrated compliance—at least as elaborated under the Clinton administration—emphasizes the central importance of deterrence as produced by traditional enforcement actions. By contrast, our interviews with state agency officials suggest that some states believe EPA has overemphasized the role of deterrence as compared with the effectiveness of other compliance tools.

Despite differing views on the precise complexion of an integrated compliance program, we believe that enough is now known about the *fundamentals* of integrated compliance—particularly its requirements for conducting strategic planning, prioritizing problems, and targeting resources and tools—to permit evaluation of state efforts to adopt a more explicitly integrated compliance program.

Toward this end, we have developed an assessment framework or matrix based on five interdependent principles that we believe encompass the *structural and management prerequisites* of sound integrated compliance programs for environmental agencies. These principles are as follows:

- the need for a strong planning process that sets and implements priorities, both generally and for the compliance program specifically;
- adequate data and monitoring capabilities to support resource allocation planning and adaptive management;
- a full range of compliance tools and processes not hindered by excessively cumbersome procedures;
- a strong commitment to informing and interacting with the public; and
- sufficient financial and human resources.

We have abstracted and synthesized these principles from the literature, from our state interviews for this project, and from the tenor of recent professional discourse about improving environmental compliance. Thus, we believe that these principles, in and of themselves and separately considered, are neither controversial nor particularly novel.

More critical is our assertion that these principles *together* form a *necessary* basis for states to adopt effective integrated compliance programs. This assertion rests on the interdependence of these principles and on the relationships between them. We do not claim that the principles alone are sufficient, because structural and management prerequisites cannot, by themselves, guarantee

a sound integrated approach to compliance. An effective state compliance program also surely requires agency vigilance in the pursuit of stated objectives, strong leadership, and the political will to protect the environment.

The importance of principles and good practice

The importance of establishing basic compliance principles—and of state agencies’ employing a consistent set of principles in their compliance activities—is clearly indicated by recent concerns aroused among a significant portion of the environmental community and within EPA in response to changes in state compliance programs. Concerns include, for example, whether resources devoted to new incentives for leadership and beyond-compliance behavior detract from agencies’ resources to maintain a statutory, baseline level of environmental protection in core media programs. They also ask whether reduced state reliance on traditional enforcement actions suppresses the deterrent effect and results in higher levels of noncompliance or more scofflaws.

Our interviews for this study and the general tenor of public discourse on this topic make it clear that these concerns are widely held. In part, this lack of confidence may reflect the failure of state agencies to convincingly articulate, internally or externally, a clear, substantive, and well-considered vision of integrated compliance. It may also reflect their failure to obtain data for measuring whether new compliance initiatives are producing improved environmental results, including baseline data measuring levels of compliance under pre-existing enforcement-based programs. Because of the ad hoc nature of the changes in their programs, EPA and state agencies have also largely failed to solicit the views of the environmental community on key issues related to developing effective compliance strategies.

Compliance programs in five Midwestern states

This study focuses first on articulating *the structural and management prerequisites* for sound integrated compliance programs and then compares the programs of five Midwestern state environmental agencies—Illinois, Indiana, Michigan, Minnesota, and Wisconsin—with these prerequisites. Management at these agencies agreed to collaborate with the research team, providing both documents and access to their staff for in-person and telephone interviews.

After comparing the compliance programs and management capacities of these five state agencies with these prerequisites, we have seen that adopting and implementing an integrated compliance program presents a considerable challenge. The state practices examined in this study indicate that systemic areas of weakness do exist, but we also found that some states have begun to make progress in acquiring key capabilities for certain elements of their compliance programs. Further, the state agencies we examined all have their own visions of progress and needs that are substantially compatible with the principles for integrated compliance outlined here. Our study also makes clear that the demands of integrated compliance and state agency responses to these demands have implications not just for the agencies themselves, but also for environmental organizations in their watchdog capacity and for state legislatures, which must ultimately be willing to authorize the agencies’ increased investments in better information systems, and improved institutional capacity.

Planning

Because of the continuing evolution of environmental issues and the increasing number of regulated facilities, all five of the states in this study rely more and more on strategic planning to set priorities, target resources, and direct day-to-day staff work. In four of the five states, Performance Partnership Agreements (PPAs) negotiated with EPA Region V play a central role in the strategic planning process. As a result, members of the public and environmental organizations that want to influence agency priorities and the way agency resources are targeted need to participate actively in the planning process and in the development of PPAs. However, our research indicates that public and environmental group involvement in strategic planning and developing of PPAs is, unfortunately, quite limited in most of the five states.

Data, performance measurement, and monitoring

Reliable and accurate information is an important ingredient of effective planning, especially when the plans set goals that rely on environmental outcomes as one of the key measures of success. While all five states are focusing more attention on ambient monitoring and performance measures, most states' ambient monitoring networks are still not adequate to provide the baseline data needed to measure progress. Further, data systems in several of the states are not integrated across the various media programs, making the information difficult to use and difficult for the public to access or understand. To support sound strategic planning, priority-setting, and measurement of progress in meeting environmental goals, all five states need to continue building their ambient monitoring networks. They also need to improve their information systems so they can integrate data across media programs and can provide the public with more understandable data on both environmental progress and facility compliance.

Compliance tools

The complex nature of environmental problems and the large number of regulated facilities also force states to rely on a broad range of compliance tools, including technical and compliance assistance, enforcement actions, and leadership programs. In deciding when to deploy these tools, states need an integrated strategy that first identifies key environmental problems and then enables managers to select the tool or tools best suited for solving the problems. These five states are only beginning to develop such integrated compliance programs. The public and environmental organizations should track state compliance programs to ensure that states are focused on resolving key environmental problems and have a strategy for integrating the use of their various compliance tools. It is also important to monitor whether states are maintaining an effective balance between the staff and financial resources devoted to each of the major categories of compliance tools.

Some of the five states have quite comprehensive sets of compliance tools, while others lack critical tools or are burdened by complex procedures that limit the effectiveness of some key tools. The authority to assess administrative penalties, for example, is an important enforcement tool that enables states to efficiently address large numbers of violations. Yet only Minnesota has used administrative penalties as a principal compliance tool. In some cases, complex procedures, such as advance notice to violators and restrictions on penalties for certain types of facilities, restrict the use of key compliance tools. The public and environmental organizations should examine state compliance authorities to ensure that environmental agencies have a full range of tools, paying particular attention to the availability of administrative penalty authority, and that state compliance actions are not unduly restricted by cumbersome procedural requirements.

Compliance and technical assistance programs play an important role in informing the regulated community about compliance requirements and how to meet those requirements. Each of the five states has committed significant resources to compliance assistance, although the approaches they used vary widely. Indiana uses a segregated, confidential compliance assistance program, while Illinois has an integrated approach for inspectors to provide pollution prevention information or compliance assistance advice or to undertake an enforcement inspection, depending on the circumstances. Unfortunately, the effectiveness of the states' compliance assistance efforts is simply measured by numbers of contacts with the regulated community. Instead, given the large amount of resources dedicated to these programs in all five states, more robust ways of determining the value of various approaches to compliance assistance need to be developed.

As states focus more on strategic priorities, they may direct less attention to core program functions such as permitting, inspections, and enforcement. These programs, however, provide an important foundation for leadership programs. They are also critical for deterring violations and maintaining credibility in the eyes of the public. Consequently, state strategic plans should take into account how core programs will be maintained and not short-changed while states experiment with new ways of addressing environmental problems.

Each of the five states has experimented with voluntary leadership programs. Three of the five have scaled back their leadership programs because of difficulties experienced in implementing them. These difficulties include lengthy negotiations with EPA that have resulted in only limited innovations, extensive staff time needed to manage the programs, and limited industry participation. However, Michigan and Wisconsin remain committed to their leadership programs. Wisconsin has worked closely with stakeholders in designing its proposed Green Tier leadership program and has committed to obtaining funding for public interest organizations to participate in its implementation. At the date of publication, the five states have not collected much data to measure the effectiveness of their leadership programs.

Public involvement

Each of the five states publishes a state of the environment report, although the content of the reports varies widely from state to state. Some states provide only general information about environmental conditions, while others include significant data on ambient conditions and trends. Just as the Global Reporting Initiative is doing for corporate environmental reports, states should consider developing a common format for their environmental reports that includes ambient monitoring data; trends in key air, water, and waste indicators; progress in meeting strategic goals; and other information that can help the public evaluate the effectiveness of environmental programs.

Some of the states have experimented with innovative ways to involve the public. These new methods include listening sessions as part of the strategic planning process, the use of electronic multivoting to obtain public input, stakeholder groups for Project XL innovation proposals, and monthly public meetings with senior agency staff. In developing its Green Tier leadership program, Wisconsin worked closely with a broad group of stakeholders, including environmental organizations. More frequently, public involvement in states' core regulatory programs is still formal public notices or draft permits, with the opportunity for the public to comment or request a contested hearing. States should consider more effective approaches that provide the public with earlier notice about permit applications and other key regulatory actions; then the public can become involved at a stage when problems can be identified, changes in proposals can be made, and disputes can be minimized.

Financial and human resources

Most of the five states have experienced budget reductions in the past few years. Further, even when state budgets have increased, rising overhead costs and staff salaries have limited the ability of some of agencies to expand staff and meet new needs or address new environmental problems. Further, major agency reorganizations can reduce productivity. In Minnesota, a major reorganization and budget reductions appear to be directly correlated with reduced permitting, inspections, and enforcement. A similar downturn in enforcement activity occurred in Wisconsin following a 10 percent budget reduction in 1996. These circumstances indicate that members of the public and environmental organizations interested in preserving strong state regulatory programs need to scrutinize closely the adequacy of agency budgets and the value of reorganization efforts that may divert the attention of agency staff for extended periods of time.

Chapter 1.

Background: Changes in State Compliance Programs

Maximizing the regulated community's compliance with environmental laws and regulations is a primary goal of environmental agencies. These laws and regulations define a baseline level of environmental and health protection, and the degree of compliance by the regulated community determines the extent to which this baseline is actually achieved. Environmental laws and regulations also define self-reporting requirements for regulated entities; agencies are substantially dependent on such data to evaluate substantive compliance and environmental conditions. Thus, even compliance with "paper requirements" is critical to effective priority-setting, resource allocation, and general management by agencies.

A regulatory agency's *compliance program* is the set of actions and processes undertaken to verify, encourage, and ensure that regulated facilities/entities remain in or come into compliance with environmental regulations. A compliance program includes activities such as inspections, monitoring, outreach, reporting, record reviews, compliance assistance, negotiation, and formal enforcement actions.

The term *compliance program* implies a coordinated set of actions conducted by a discrete organizational unit. In reality, this coordination occurs rarely. Compliance tends to be a decentralized activity in most environmental agencies. Typically, multiple media program offices are involved, as well as an agency's pollution prevention/technical assistance office, its enforcement office, and legal counsel. Offices responsible for processing permits, writing regulations, and using grants may also be involved. In most agencies, these functions have historically operated with great autonomy and only episodic, ad hoc coordination. Nevertheless, as this chapter shows, state environmental agencies are subject to a set of forces that mandate integrated approaches to compliance—that is, unified compliance planning and integrated management of compliance activities across historically distinct offices and programs.

This study focuses on articulating *the structural and management prerequisites* for sound integrated compliance programs and on comparing the programs of five Midwestern states based on these prerequisites. Thus, while our study views enforcement as an essential element of any compliance program, it neither articulates nor evaluates principles for sound *enforcement* practice, such as the creation of deterrence or the effective use of enforcement resources. However, precisely this task was undertaken by the Environmental Law Institute in 1987 with its comprehensive *State Hazardous Waste Enforcement Study*.¹ Although ELI's study is now 15 years old, it still provides valuable analysis to complement this report.

¹ Environmental Law Institute, 1987. *State Hazardous Waste Enforcement Study*, prepared for the U.S. Environmental Protection Agency (EPA).

1.1. The “full-coverage” ideal

Traditionally, compliance has been considered nearly synonymous with *enforcement*.² This view implicitly reflects an ideal of compliance that, following Michael Stahl, we term the “full-coverage” model:

*The traditional strategy of regulatory compliance programs has been to create and maintain a presence in the regulated universe, which could identify and correct violations and deter others from violating laws and regulations. This strategy viewed complete coverage of the regulated universe and uniform enforcement of the law as overarching goals.*³

An agency achieving the full-coverage ideal would include all eligible entities in its regulated universe, inspect 100 percent of these entities, discover 100 percent of all violations, and successfully compel a return to compliance in all cases.

In reality, full coverage has always been a goal or an ideal rather than a description of actual practice. No environmental agency—federal or state—has the inspection and enforcement resources to implement the model across the entire regulated universe. Indeed, in most cases, agencies are not even able to *identify* the regulated universe in its entirety. Instead, “*general deterrence*”—preventing non-compliance via the credible threat of discovery and subsequent penalty—combined with enforcement against individual regulated entities—“*specific deterrence*”—have together been the cornerstone of environmental compliance. Underlying the concept of general deterrence, and the targeting of compliance resources that it implies, is the acknowledgement that full coverage is typically not possible except for narrow classes of facilities.⁴ In reality, compliance assistance and other activities that do not involve inspections and enforcement have long been a component of agency programs.

Thus, “full coverage” is in many ways a caricature. But it effectively communicates the prevailing view that policing is the essential core of agency activities and that other compliance activities are either (a) secondary and dispensable or (b) second-best compromises made to accommodate the realities of limited resources.

1.2. Forces of change

Over the past decade, state environmental compliance programs have been subject to a number of forces that have tended to make full coverage less viable even as a nominal ideal.

² We define enforcement as the practice of discovering, typically via facility inspections or audits of self-reported data, violations of law or statute requiring corrective action and usually imposing penalties or requiring corrective action. By taking and publicizing enforcement actions, environmental agencies intend to address both specific cases of non-compliance and to deter non-compliance in the regulated community at large. In many state agencies, enforcement has a more limited definition, referring to the process of imposing administrative or civil penalties on a regulated entity subsequent to an inspection.

³ Michael Stahl, “Beyond the Bean Count: Measuring Performance of Regulatory Compliance Programs,” in *The Public Manager*. Fall 1999. At the time, Stahl was Deputy Assistant Administrator, Office of Enforcement and Compliance Assurance, U.S. EPA.

⁴ One such narrow class of facilities are hazardous waste transfer, storage and disposal (TSD) facilities. States are under EPA mandate to inspect all such facilities on a regular basis.

Need to address unregulated sources and new sectors

To meet health-based ambient standards for air, land, and water, state agencies increasingly must focus on reducing emissions from nonregulated sources and reducing pollution from previously unregulated sources and sectors. Examples include the progressive focus on smaller and smaller sources in ozone nonattainment areas under the 1990 Clean Air Act Amendments, and agencies' efforts to address non-point sources of water pollution, such as agricultural runoff, in the context of Total Maximum Daily Loads (TMDLs).

This change in focus necessarily implies changes in state compliance programs. The National Academy of Public Administration described the situation succinctly:

The United States has relied heavily on one policy tool for controlling pollution: the enforceable—and vigorously enforced—federal and state permit. That tool cannot effectively reduce pollution from millions of small, dispersed sources, or even from thousands of large businesses such as farms.⁵

When agencies find themselves dealing with previously unregulated businesses or sectors, a traditional permit-inspect-discover-penalize approach may be ineffective or politically infeasible, at least in the initial stages of a regulatory program. The traditional model uses inspections and penalties to create deterrence, implicitly assuming that the regulated community understands its compliance obligations. However, newly regulated classes of sources may have a poor understanding of regulatory requirements, as illustrated by the experiences of state agencies in regulating dry cleaners, auto repair shops, individual septic systems, and construction sites, among others. Regulating agricultural facilities, such as large animal feeding operations, has also proven to be particularly difficult for many agencies because the sector resists regulation and is able to translate this resistance into support by the state legislatures.

Further, many environmentally significant pollution sources, behaviors, and activities are not directly subject to regulation, such as energy and water use, fleet management, and emissions of climate change gases, as well as agricultural and urban runoff. Alternatively, regulations may exist, but additional reductions beyond regulatory requirements may be desirable. In the absence of new regulations or statutory authorities, state agencies can only act in these areas by adopting leadership or voluntary programs to elicit beyond-compliance behaviors from the regulated community.

Resource constraints and growing responsibilities

Budgets of state environmental agencies have generally been flat over the past several years⁶ (and at press time were decreasing because of state budget austerity),⁷ but agency responsibilities have continued to increase. While no major new national environmental statutes have been enacted or amended in the past several years, implementation of rules and the growth of the regulated universe continue to expand agency workloads. Examples of extremely resource-intensive new

⁵ National Academy of Public Administration. *Environment.gov: Transforming Environmental Protection for the 21st Century*. National Academy of Public Administration: Washington, DC: 2000.

⁶ Environmental Council of the States (ECOS) data indicate relatively flat funding since 1994, with significant increases over the preceding decade (R. Steven Brown. *States Put Their Money Where Their Environment Is*. ECOS: Washington, DC: 2001.)

⁷ R. Steven Brown, "Coping with the Budget Crunch: How State Environmental Agencies Deal with Budget Cuts," in *ECOSates*. (Winter 2002) pp 16–19. ECOS: Washington, DC.

work include Title V permitting under the 1990 Clean Air Act Amendments, TMDLs, and non-point sources of air and water pollution.

As a result, even if the full-coverage ideal had once been practically achievable, it is far less so now. Agencies do not have the resources to pursue all the intensive policing activities—inspect-discover-penalize-reinspect—as implied by the full-coverage model, uniformly across all sectors of the regulated universe. Agencies must discriminate between situations in which inspection resources are absolutely required and those where alternate forms of interaction with the regulated community can produce compliance using fewer resources.

Legislative and executive mandates

In a number of cases, legislatures have imposed a mandate on state agencies to provide assistance-based compliance services to the regulated community. These mandates often derive from states' pollution prevention laws. In at least one case (Indiana), special legislation mandates a confidential technical assistance office. In other cases, legislatures (or governors' offices) have intervened to mandate enforcement procedures that allow expanded opportunities for resolution of violations without penalty. Audit immunity laws such as those enacted by Indiana, Michigan and Minnesota are another widespread example of legislative mandates that may limit agency compliance programs.

Responding to best current knowledge of non-compliance

In addition, state agencies recognize that, to be successful, their compliance programs must target the causes of non-compliance. Agencies' compliance activities thus tend to respond to their day-to-day experience and to the best current knowledge about sources of non-compliance.

Experience and scholarship strongly indicate that non-compliance originates from *both* economic and institutional factors.⁸

Economic perspectives on non-compliance treat non-compliance as a gamble to which one can apply the standard theory of choice under uncertainty.⁹ In the most basic economic model, a firm decides to comply if the cost of compliance is less than the expected outcome of non-compliance (i.e., the penalty for non-compliance multiplied by the chance of its being detected). A number of more sophisticated variants build on this model.¹⁰ But those variants maintain the basic premise that firms make economically rational decision to comply or not comply.¹¹

⁸ This section is adapted in large part from Mark Stoughton, Jeanne Herb, Jennifer Sullivan and Michael Crow, "Toward Integrated Approaches to Compliance Assurance," in *Environmental Law Reporter News and Analysis*, Vol. 31(11) (November 2001) pp. 11266-11283. A far more comprehensive review of the literature was produced by EPA's Compliance Information Project, which generated an extensive list of compliance-related literature and provides summaries of a select group. See *U.S. EPA, Compliance Information Project: Literature Summaries* (1999) [EPA 300-R-99-002]. For an extensive single-source review of the theoretical and empirical literature, see Mark A. Cohen, "Monitoring and Enforcement of Environmental Policy," in *International Yearbook of Environmental and Resource Economics* (Tom Tietenberg & Henk Folmer, eds.) 1999.

⁹ Anthony G. Heyes, "Making Things Stick: Enforcement and Compliance," in *Oxford Review of Economic Policy* 50-63 (1998). See also Cohen, 1999.

¹⁰ Refinements to the basic economic model include, for example, accounting for multiple interactions with a regulatory agency over time, accounting for reputational and other extended costs of non-compliance, and incorporating misjudgments about the probability that violations will be detected.

¹¹ It should be noted that normative economic models dealing with the broader objectives or goals of regulatory agencies, and of compliance assurance and enforcement activity in particular, also exist. Broadly speaking, such normative economic perspectives assume that the goal of a regulatory agency should be to maximize social

By contrast, institutional and organizational perspectives on non-compliance posit that, all else being equal, firms will tend to comply with regulations because environmental compliance is a social norm. Under those models, firms are not cynical economic rationalists; rather, failure to comply arises from four key sources: ignorance of regulatory requirements, inadequate knowledge of the firm's own operations, poor internal environmental management systems, and lack of capability to comply.¹²

Economic perspectives suggest that increasing *deterrence*—that is, increasing the penalties for non-compliance or increasing the probability that violators will be discovered by means of increased enforcement effort—is the most effective means of improving compliance. By contrast, institutional and organizational perspectives suggest that the best tools for improving compliance are outreach and assistance, which increase awareness of regulatory requirements as well as the capacity to comply with those requirements. Both perspectives suggest that regulatory streamlining and rationalization, which reduce the transaction costs of compliance and render regulatory requirements more transparent, will tend to result in increased compliance.

Both economic and institutional perspectives on compliance provide useful insights into the nature of non-compliance, but the day-to-day experience of regulatory agencies indicates that neither alone provides a sufficient explanation for the real-world behavior of regulated entities. That point is made clearly by even a limited set of representative examples from the empirical and descriptive literatures.

For example, the pure economic model appears to be contradicted on two levels: in the gross results it predicts and in the assumptions it makes about the unitary nature of the firm. While levels are difficult to measure, some studies suggest that environmental compliance in the United States is substantially in excess of that suggested by the simple economic model. Although adjustments can be made to the model to account for at least some of the “excess compliance,” social norms do play a role in firms' behavior.¹³ However, viewing a firm as a unitary economic actor is rarely valid. The economic incentives facing individuals arise as a function of organizational structure and job description and may not reflect profit-maximizing behavior for the firm as a whole. Non-compliance, if deliberate, may be the result of individual, rather than firm, rationality.

Purely institutional perspectives are likewise problematic. Strictly voluntary approaches—such as environmental programs focused on knowledge dissemination and technical assistance—have not proven effective as stand-alone tools in promoting compliance and pollution prevention. Absent the plausible threat of enforcement, cooperative approaches to achieving compliance seem to have only a limited effect on regulated entities.¹⁴ Such voluntary approaches achieve far better

welfare/minimize social costs; that is, the marginal benefits of an additional unit of environmental protection should equal the marginal costs. This implies the existence of an optimal level of non-compliance, determined both by the cost of compliance and the costs of assurance activity. For a regulatory agency, the “optimal level of compliance” is a vexing question, particularly since the economically optimal level of compliance would vary across firms; firms with high compliance costs would comply less than firms with low compliance costs. In practice, the integrated approach to compliance discussed in this study assumes that the regulatory agency seeks to maximize environmentally meaningful compliance within available resources.

¹² EPA, Office of Enforcement and Compliance, *EPA/CMA Root Cause Analysis Project: An Industry Survey* (1999) [EPA 305 R 99001] typifies institutional or organizational perspectives.

¹³ Heyes, 1998, summarizes the “excess compliance” result.

¹⁴ For a comparison of compliance in the Canadian and American pulp and paper sectors, see Kathryn Harrison, “Is Cooperation the Answer? Cooperative Approaches to Environmental Protection,” in *Journal of Policy Analysis and Management*, vol. 14, pp. 221-244 (1995). According to Harrison's depiction, in Canada non-compliance has typically been addressed by negotiations between the regulatory agency and the regulated entity designed to

results when they are closely linked to statutory requirements and traditional enforcement actions than when there is no statutory base.¹⁵ However, there is clear evidence that lack of capacity and knowledge create real barriers to compliance, particularly for smaller enterprises, and that reducing those barriers can improve environmental performance.¹⁶

Thus, in most situations, both economic and institutional factors contribute to non-compliance. Large, publicly held entities might be expected to conform more closely to models of economically rational behavior, both because they are under a legal mandate to maximize shareholder value and because they are more likely than smaller entities to possess significant economic analysis capabilities. Large entities, however, are also institutionally complex, and institutional and organizational sources of non-compliance therefore can occur.

Because of these considerations, then, state environmental agencies see a clear and well-supported need to pursue traditional enforcement, leadership incentives, and compliance assistance programs.

Performance-based management

Moreover, the paradigm or model that underlies the management of state environmental agencies is becoming increasingly “performance based.” In some cases, state statutes mandate performance-based budgeting. In others, it reflects an evolving conception of best practice. Performance-based management mandates that an organization’s work be explicitly associated with clearly identified high-level objectives and that indicators or metrics provide an ongoing “report card” to measure agency performance against those high-level objectives. Performance-based management thus emphasizes outcomes or results rather than the activities (e.g., inspections) that simply constitute a means to an end. While performance-based management may not constitute an *imperative* to move away from the full coverage ideal of environmental programs, it implicitly promotes a broader view of compliance activities and necessitates a distinction between the means and ends for achieving compliance.

1.3. States move visibly away from the full-coverage ideal

Thus, state environmental agencies are subject to a set of forces that have effectively compelled change in their compliance programs. These forces act both to reduce agency discretion and to

achieve a schedule for returning to compliance. Agencies almost never resorted to punitive enforcement actions. Harrison argues that Canada’s approach results in lower compliance rates than the more adversarial American approach does.

¹⁵ For a summary of research on voluntary approaches, see Mark Stoughton, Karen Shapiro, & Dima Reda, *Do Voluntary Mechanisms Work? An Evaluation of Current and Future Program Performance* [Report submitted to the Michigan Great Lakes Protection Fund] Tellus Institute: Boston (2000). See also Kathryn Harrison, “Talking with the Donkey: Cooperative Approaches to Environmental Protection,” in *Journal of Industrial Ecology* vol. 2 no. 3 (1999); and Thomas Lyon & John Maxwell, “‘Voluntary’ Approaches to Environmental Regulation: A Survey,” in *Environmental Economics: Past, Present, and Future* (M. Franzini & A. Nicita, eds. 1999). Note that this literature is largely devoted to efforts to achieve beyond-compliance actions from economic entities. Some results, however, are specifically applicable to compliance by regulated entities.

¹⁶ For example, some studies claim efficacy for voluntary programs based on subsidizing information regarding environmental technologies. For example, R.D. Morganstern & S. Al-Jurf, *Do Information Subsidies Accelerate the Diffusion of New Technologies?* Resources for the Future (1997).

prompt shifts in resources away from traditional inspect-and-enforce activities to find other, less-resource-intensive ways to meet environmental needs. It is not surprising that state compliance activities have moved increasingly away from the nominal ideal of full coverage during the 1990s.

Usually acting in an ad hoc rather than in a strategic or coordinated way, state agencies have begun to devote increasing resources to experimentation, instituting a more varied set of compliance activities. Significantly, these activities have focused in part on eliciting *leadership* or *beyond-compliance* behaviors, as well as on compliance assistance, education, and outreach.

Over the past several years, state compliance assistance services (e.g., publications, confidential consultations) and voluntary initiatives focused on beyond-compliance behaviors have proliferated. In a number of states, changes to enforcement procedures that permit self-auditing, more opportunity for negotiation, and no-penalty resolution of discovered violations have been enacted.

States, as well as the U.S. Environmental Protection Agency (EPA), have begun to focus compliance activities on certain sectors, usually chosen on the basis of environmental priorities. Most recently, a number of states have implemented *leadership programs*, which typically offer recognition *and* a regulatory quid pro quo (e.g., expedited permitting, compliance self-certification) in return for good compliance history and beyond-compliance commitments on the part of participating entities. These state efforts often coincided with EPA's Project XL, established to test regulatory innovation approaches, and have largely preceded EPA's *National Performance Track* program, which embodies the same concepts.

1.4. Toward integrated compliance?

From these largely ad hoc changes in state compliance programs, some agencies and researchers are beginning to assemble the outlines of a new understanding of compliance. "Integrated compliance" rests on targeted, priority-based problem solving, as opposed to blanket coverage, using a full range of compliance tools, and not just enforcement. The sidebar describes the various categories of nonenforcement compliance tools.

This new understanding, or model, is admittedly still emerging. There are differing views on the relative weight that should be given the various compliance tools, their utility, and indications for their application. For example, EPA's view of integrated compliance—at least as elaborated under the previous administration—emphasizes the central importance of deterrence:

Tools for compliance

In addition to enforcement, compliance tools available to agencies include compliance assistance and incentives.

Compliance assistance consists of activities undertaken by a regulatory agency with the express purpose of building the *capacity* of regulated entities to comply with environmental regulations.

Capacity consists of (1) understanding regulatory requirements and (2) possessing the knowledge, ability, and resources to remedy deficiencies.

Compliance assistance activities may include providing plain-language regulations and guidance, transferring technical information, or explaining possible ways to correct deficiencies. Compliance assistance may be delivered in any of several ways—via dissemination of printed or electronic material, via sector-wide outreach events, via site audits or inspections, via hotlines, etc.

Compliance incentives reward regulated entities that come into compliance of their own accord, rather than as the result of an enforcement process.

Compliance incentives include policies or protocols that permit the agency to waive penalties for self-disclosed violations and other penalty/enforcement flexibility.

Beyond-compliance incentives reward entities for environmental actions that the agency has no statutory authority to compel, such as conserving energy or water. In the case of regulated entities, this reward may take the form of preferential treatment under the regulatory process (e.g., expedited permit applications). In the case of nonregulated entities, the agency may be restricted to the use of public recognition.

*[Integrated compliance] means tying the tools together in a way that provides clear information to the regulated community, some incentive to get ahead of the curve, and the prospect of sanctions for those that lag behind.*¹⁷

By contrast, extensive interviews with state agency officials indicate that many states believe EPA overemphasizes the role of deterrence versus other available tools.¹⁸ State leadership to develop a framework for applying all these tools is illustrated by the work of the Environmental Compliance Consortium, a collaboration among state environmental agencies.¹⁹ The consortium has developed a “Response COMPASS” to guide the choice of compliance tools based on (1) the relative environmental capacity of regulated entities and (2) the likely environmental consequences of non-compliance.²⁰ For example, entities that have both environmentally hazardous operations and significant environmental expertise would expect to face traditional enforcement. Those entities that have little environmental sophistication and whose operations pose few immediate environmental hazards would expect a greater focus on education and assistance and the application of enforcement discretion (e.g., self reporting under auditing programs or warning letters), rather than formal enforcement procedures as a first resort.

Despite differing views on the precise complexion of an integrated compliance program, we believe that enough is now known about the *fundamentals* of integrated compliance—particularly in its requirements for conducting strategic planning, prioritizing problems, and targeting resources and tools—that we can evaluate state efforts to move toward a more explicitly integrated approach to compliance. The importance of this assessment is clearly indicated by the stakeholder concerns described in the next section.

1.5. Stakeholder concerns

The changes in state compliance programs described above have raised concerns among a significant portion of the environmental community—and within EPA. Their questions include the following:

- Do resources devoted to giving businesses incentives for beyond-compliance behavior detract from maintaining a statutory, baseline level of environmental protection in core media programs?

¹⁷ Eric Shaeffer, Director, Office of Regulatory Enforcement, U.S. EPA. January 2000. As quoted in Stoughton *et al.* (2001).

¹⁸ Jeanne Herb, Mark Stoughton, Jennifer Sullivan and Allen White. *The National Environmental Performance Partnership System: Making Good on its Promise?* (Paper #12, Environment.gov: *Learning from Innovations in Environmental Protection*). National Academy of Public Administration: Washington, DC (2000).

¹⁹ The Environmental Compliance Consortium is a “collaborative effort among state environmental agencies to develop better ways to: measure and manage the environmental and compliance performance of regulated entities; apply those measures to evaluate the most effective government strategies for improving compliance and performance levels; develop improved analytic methods for finding compliance problems; share new developments in compliance measurement and analysis with practitioners throughout the country so that environmental program effectiveness will continually improve; and build an institutional capacity among the states to learn, collectively, from their experiences and to remember them over time” (Environmental Compliance Consortium website www.compliancconsortium.org, June 2002.)

²⁰ Suellen Keiner, Brenda Hagman and Bernard Penner. “Environmental Compliance Consortium’s Response COMPASS” in *ECOStates*. Summer 2001. pp 24–29.

- Does reduced reliance on traditional enforcement actions suppress the deterrent effect and result in higher levels of non-compliance or more scofflaws?

The well-publicized controversy over state enforcement data (see sidebar) exemplifies these issues. It also illustrates the data quality problems that confound straightforward answers to these questions and, in part, have motivated this study.

Our interviews for this study and the general tenor of public discourse on environmental compliance make it clear that these concerns are widely held. In part, this skepticism may reflect the failure of state agencies to articulate convincingly, both internally or externally, a clear, substantive, and well-considered vision of integrated compliance. Reflecting the ad hoc nature of changes in compliance programs, U.S. EPA and state agencies have also largely failed to solicit the views of the environmental community on high-level issues of compliance strategy.

Even setting aside lapses in communication, however, these public concerns cannot be dismissed out of hand. Given limited state resources, increased attention to one set of agency activities does imply reduced activity elsewhere. Further, we have argued only that state agencies are subject to forces that compel change in their compliance programs away from a full-coverage model and that such changes require more integrated approaches to compliance. This does *not* mean that the actual changes in practice at the state level are now delivering superior environmental outcomes or are the most cost-effective way to use state resources.

A decline in state enforcement activity?

During the late 1990s, data from internal EPA studies, as well as reports from the U.S. General Accounting Office and some public interest organizations, all suggested a decline in state enforcement and compliance activity nationwide. While each study evaluated a limited number of states and EPA regions, the data all suggested similar downward trends in certain types of enforcement and compliance actions.

Prompted by states' and regions' protests about the accuracy of the data in a few already public studies, *Inside EPA* filed a Freedom of Information Act request and obtained all the internal evaluations of states and EPA regions performed by EPA's Office of Enforcement and Compliance Assurance (OECA) between February and December 1998.

Inside EPA obtained state-by-state data for 18 states, covering either three- or four-year periods. Publication of these data in the May 14, 1999, issue of *Inside EPA* touched off widespread controversy. *Inside EPA's* article observed that "state enforcement activity nationwide has plummeted over the past five years, and regional oversight of state programs has done little to prevent the slide." Indeed, the data from the states in all four regional evaluations showed that from 1993 to 1997, enforcement activity—measured by administrative orders and civil referrals—had dropped in all but two of the 18 states.

The *Inside EPA* article prompted many, often conflicting explanations by the states, the regions, and EPA headquarters. Two months later, the states formally replied to these allegations of inadequate state enforcement, pointing out that there were major problems with the integrity of EPA's state-by-state data and giving numerous examples of errors that produced distortions in EPA's conclusions based on those data.

Those problems included errors in posting data or entering them into EPA's mainframe computers, simple mathematical errors, discrepancies between data reported by a state and those recorded by EPA for the same state, and differences in defining key terms (such as whether a notice of violation constitutes an enforcement action).

Moreover, and perhaps more important, the states disputed "whether the number of enforcement actions actually reveals anything of value about the environment and whether any significant conclusions can be drawn from increasing or decreasing rates of enforcement."

EPA issued a formal reply to the states a month later. OECA acknowledged that there were a variety of possible causes for the discrepancies and that it was willing to work on improving the quality of its data. However, the agency claimed that public release of such incorrect information by OECA was "extremely rare" and argued that even when the states' data were corrected, they still showed a 19 percent decrease in state enforcement activities. In reply, the Environmental Council of the States maintained that the corrected data showed only a statistically insignificant six percent drop in activities.

Sources: National Academy of Public Administration, 2001. *Evaluating Environmental Progress: How EPA and the States Can Improve the Quality of Enforcement and Compliance Information* (Washington, DC: National Academy of Public Administration); *Inside EPA*, May 14 & Aug. 11, 1999. Washington DC: Inside Washington Publishers; *The Reinvention Report*, August 25, 1999. Washington, DC: Inside Washington Publishers.

1.6. Purpose and goals of the study

Goals

This study is focused on two tasks:

- (1) articulating the structural and management prerequisites for sound integrated compliance programs; and
- (2) comparing the compliance programs of five Midwestern state agencies with these prerequisites.

Using this comparison, we provide a perspective on current state practices and insights into the strengths of state programs—and gaps in these programs—in a way that responds, at least partially, to the stakeholder concerns enumerated above. The study should provide guidance for compliance-related self-evaluation and planning carried out by state agencies. It should also inform environmental groups about the elements of sound practice that merit their vigilance as watchdogs for environmental protection.

Analytical challenges

Articulating these structural and management prerequisites requires confronting a more fundamental set of issues: What are the appropriate metrics and criteria for evaluating compliance programs? As the sidebar on state enforcement data illustrates, this issue is quite vexing. Traditionally, compliance programs have been evaluated by activity counts or other “output measures”—for example, the number of inspections conducted, dollars of penalties assessed, and numbers of enforcement actions prosecuted. The deficiencies of these output measures as the “sole or primary measures of program performance”²¹ have been well documented.²²

However, judging compliance by environmental outcomes—the opposite of an activity-based approach—is equally problematic as a “sole or primary measure” of program performance. This difficulty arises both because the information itself often does not exist in any comparable way and because direct attribution of environmental outcomes to program actions is impossible in many cases. Thus, mixed indicator sets—incorporating compliance “effort” and environmental outcomes, as well as compliance measures—need to be developed, and there are a number of efforts at national and state levels to reform for performance criteria compliance programs.²³

Mixed indicator sets may provide a means for assessing program performance, but they provide only limited diagnostic capability. That is, they typically do *not* measure or assess the fundamental capabilities of a compliance program to conduct integrated planning, priority-setting, or problem solving that uses the full spectrum of compliance tools. Ultimately, any template or protocol for program assessment that will provide useful diagnostic information to state agency, state legislatures, and/or the public requires *both* an assessment of program performance on the

²¹ Stahl, 1999.

²² These issues are well reviewed in National Academy of Public Administration, 2001. *Evaluating Environmental Progress: How EPA and the States Can Improve the Quality of Enforcement and Compliance Information*.

²³ *Ibid.* Also, see the discussion of Core Performance Measures (CPMs) in Herb *et al.* (2000); discussion of EPA’s National Performance Measures Strategy in Stoughton *et al.* (2001); and Shelley Metzenbaum and Tiffin Shewmake, 2002, *The Search for More Nutritious Enforcement Beans*, Environmental Compliance Consortium working paper. (<http://www.complianceconsortium.org/>)

basis of a mixed indicator set *and* an assessment of the administrative structures and institutional capabilities that produce this performance.

Study conclusions and deliverables

For this study, we have developed a protocol or template for evaluating environmental compliance programs, based on scholarship to date, an emerging sensibility among practitioners regarding effective compliance practice, and our in-depth case studies of five Midwestern states. The template can serve as a prescriptive model or framework for determining the structural and management prerequisites for the effective practice of integrated compliance. To our knowledge, this effort is the first of its kind and is our primary contribution to identifying best practices for integrated compliance.

Our research has evaluated the compliance programs of five states—Illinois, Indiana, Michigan, Minnesota, and Wisconsin—on the basis of this protocol. We have focused on the essential core elements of the full-coverage model—enforcement actions—as well as the three other components of an integrated compliance program: compliance assistance, compliance incentives, and beyond-compliance incentives. We have paid particular attention to state leadership programs,²⁴ perhaps the most controversial tool among the new state compliance activities.

A complement to *Greening the Governments*

This study should be read as a complement to another recently released study funded by the Joyce Foundation: *Greening the Governments: Assessing the Environmental Conditions and Performance of the Great Lakes States*.²⁵ The *Greening* study “developed a list of tools we believe all states should possess in order to advance environmental quality and determined how many of these tools each state currently does possess.”²⁶ In this way and others, it has strong parallels with this report. However, the *Greening* study is focused to a far greater degree on the regulatory and policy tools available to states for addressing key *environmental problems*, although many are outside the purview of environmental agencies. By contrast, we have focused on the *compliance* capacity of state environmental agencies and on their planning processes, management structures, and deployment of resources.

1.7. Methodology of this study

Managers at the environmental agencies of Illinois, Indiana, Michigan, Minnesota, and Wisconsin agreed to collaborate with our research team, providing both documents and access to their staff

²⁴ We define environmental leadership programs as programs offering regulatory and other incentives or rewards to facilities or firms that commit to achieving—or have already attained—a superior level of environmental performance. Incentives offered by these programs vary; but there are three types: recognition, financial incentives (e.g., reduced permit fees or subsidized loans for P2 equipment), and regulatory incentives (e.g., expedited permitting, less frequent inspections, reduced monitoring or reporting, pre-approval or operational modifications, and self-auditing or certification). Leadership programs are typically incentivize beyond-compliance behavior, but they may also include compliance incentives.

²⁵ *Greening the Governments: Assessing the Environmental Conditions and Performance of the Great Lakes States*. Mary Gade and William Rustem, coauthors. Michigan Environmental Council, April 2002. www.mecprotects.org.

²⁶ *Ibid.*

for in-person and telephone interviews. Our resulting case studies are in Appendices A through E.

Our selection of these five states reduced one source of external variation in the study—all were under one EPA regional office, and all share in some measure a set of environmental issues common to their region. The choice of Midwest states also addresses the funding priorities of the Joyce Foundation and its interest in the environment of the Great Lakes.

The study rests equally on document-based research and analysis and in-person interviews with state agency officials, as well as representatives of the environmental groups and nongovernmental organizations (NGOs). Overall, we interviewed for this project more than 100 individuals across the five states. Each state agency received a two-person delegation of our research team for a field visit lasting two to three days. On average, 20 to 30 people were interviewed during these visits, in single or group interviews lasting between 30 and 90 minutes. Most NGO interviews were conducted by telephone.

Our data requests and the content of the interviews focused on five categories of information within each of our four major research topics: agency-wide programs, enforcement programs, leadership programs, and compliance assistance programs:

- Budgets and staffing resources,
- Program outcomes and evaluation,
- Strategic planning, resource allocation, and organizational structure,
- Statutory and legislative context,
- Qualitative descriptions of program history and institutional changes.

In general, our interviews attempted to cover the following functions within each state agency: managers of the major media divisions and of the pollution prevention or compliance assistance divisions, enforcement managers, planning and enforcement coordinators, and a sampling of media program managers. It was not possible to attain exactly identical representation of interviewees across the five states, in part because the access granted the research team varied from state to state, but also because the organizational structures of the five environmental agencies vary.

The first three case studies—Illinois, Indiana, and Wisconsin—were interpreted and assessed in light of the issues set out in the first part of this chapter, and they formed the basis for initial development of our evaluation matrix. We then used the matrix for the final two cases—Minnesota and Michigan—as further proof of concept. Thus, the information available and the evaluations conducted for the two sets of states are not entirely the same.

State agencies reviewed our detailed case studies for each agency for factual accuracy. But the states were not given an advance opportunity to review our analysis or conclusions.

1.8. Limitations of the study

Because of the differences in study protocol between the first group of case states (Illinois, Indiana, and Wisconsin) and the second (Michigan and Minnesota), the study is not strictly comparative in the usual sense.

The study examines only five states and thus is not intended as a nationwide picture of state environmental compliance practices. More significantly, within our evaluation of these five states, we have explicitly focused on the structural and management prerequisites for sound integrated state compliance programs. The aggregate data on which the study is based and its focus on program management focus do not permit an assessment of particular examples of agency action and afford only imperfect insight into each agency’s vigilance in pursuit of its stated objectives.

Finally, the premise of the study is that “next-generation” or “integrated” approaches to compliance are an imperative, not an option, for state agencies. We developed this premise based on the views we have presented in the first portion of this chapter.

1.9. Structure of this report

Following this background chapter, the report is structured as follows:

- **Chapter 2: Guiding Principles for Integrated Compliance Programs** presents the principles that, we believe, form the basis for structurally and managerially sound integrated compliance.
- **Chapter 3: Framework for Evaluating Integrated Compliance Programs** tracks how the principles presented in Chapter 2 can be optimized into a matrix or framework for evaluating the case studies and discussing the five state programs.
- **Chapter 4: Strengths and Gaps: A Discussion of the Five Case Studies** summarizes our assessment of the five state programs using the guiding principles and the major categories in the evaluation framework/matrix. For each category—planning, data and performance measurement, compliance tools, public involvement, and resources—it discusses each state’s strengths and gaps separately, and does not provide strict cross-state comparisons.
- **Chapter 5: Overall Findings** highlights specific findings common to various state cases and instances of significant variation between them.
- **Chapter 6: Conclusions and Observations** serves as a synthesis of Chapter 5. It discusses areas of weakness and progress in broad terms and relates our findings to the context and motivation for our research as explained in Chapter 1.

Appendices A through E are detailed case studies of the five state agencies, structured identically to follow the five categories of our evaluation matrix. Appendix F is the data needs inventory that we provided to the states and used to guide data collection by our research team. Document references are contained in the footnotes.

Chapter 2.

Guiding Principles for Integrated Compliance Programs

2.1. Overview

This chapter presents five interdependent principles that we believe encompass the structural and management prerequisites of an effective integrated compliance program. These principles form the basis for the evaluation matrix or framework presented in Chapter 3 which we have used in our analysis of and conclusions about the five states in this study.

These principles are abstracted and synthesized from the literature, from our state interviews for this project, and from the tenor of professional discourse in this area. Thus, we do not believe that the principles, by themselves and separately considered, are particularly controversial or novel.

More important, we believe that these principles *together* form a *necessary* basis for effective integrated compliance programs. This assertion rests on the interdependence of these principles and on the relationships between them. The discussion below thus focuses on the reinforcing relationships among these principles. However, we do not believe that the principles are *sufficient* because structural and management prerequisites alone do not guarantee sound integrated compliance practice. Rather, effective environmental compliance programs also require, for example, agency vigilance in the pursuit of its stated objectives, strong leadership, and political will to protect public health and the environment.

2.2. Principles of integrated compliance

Agencies must have . . .

1. A strong planning process that sets and implements priorities

Planning is the means by which agencies identify priorities, develop stratagems to address them, and translate these stratagems into division budgets and work plans and into individual responsibilities. Without a strong planning process, limited resources cannot be effectively deployed to address pressing environmental issues or to rectify internal performance problems.

State planning and implementation should:

- Use a clear and open process for identifying and prioritizing environmental problems, including identification of facilities that are subject to regulation and all sources that contribute to high-priority problems;
- Translate environmental priorities into resource targeting;
- Identify and use both traditional and innovative compliance tools to address priority problems, recognizing that (1) there are multiple drivers of environmental behavior, including government regulations, economics, and organizational and individual values;

and (2) complete permitting and inspection coverage of all regulated facilities is not likely to be feasible;

- Plan and target compliance actions to support agency priorities;
- Use multi-media or cross-media compliance tools to solve environmental problems in ways that do not transfer the problems to other media;
- Focus on preventing pollution and avoiding environmental problems at the start, not just controlling pollution once it is generated;
- Maintain core regulatory programs as a clear agency priority and take into account the need to balance core program capacity with experimentation or addressing new environmental problems; and
- Incorporate adaptive management mechanisms that will guide periodic reconsideration of agency priorities and ongoing adjustment of work plans based on how well various programs perform and whether they produce effective environmental results.

2. Adequate data, performance measurement, and monitoring capabilities

Effective planning as discussed above in several ways relies on agency capacity to gather *data, measure performance, and monitor environmental conditions*:

- Ambient environmental monitoring is essential to identifying and prioritizing environmental problems.
- Emissions monitoring and collection of compliance data underpin an agency's ability to identify compliance problems and "good actors" at either individual facilities or certain industry sectors. Low levels of automation, fragmented data systems, and lack of uniform compliance terminology all impede agency performance in this area.
- Agency performance in addressing priorities provides essential feedback for adaptive management in the planning process, and requires that an agency collect good data and employ sound metrics to establish baselines and measure progress toward agency goals.

3. The full range of compliance tools and the capacity to employ them in an expeditious, integrated manner

Compliance with existing environmental laws and regulations must be a minimum agency expectation for all regulated facilities in order to maintain credible, effective environmental programs and to provide a level economic playing field.

- State agencies should have clear authority in order to use a broad range of administrative and judicial enforcement tools, compliance and technical assistance tools, and mechanisms for encouraging voluntary compliance so that they can respond effectively to the diverse character of today's environmental problems. These tools need to be well integrated and should not be unduly restricted by complex administrative procedures.
- State agencies need a strong credible enforcement program, including not simply an enforcement presence, but also an escalation process that is clear, consistent, and public for more serious or uncorrected violations.

4. A strong commitment to informing and interacting with the public

Beyond the general principle of public accountability, integrated compliance demands a particularly high level of openness and public involvement. Transparency is essential to building public confidence in an agency and in the performance of regulated facilities. Such confidence is particularly needed when management paradigms and compliance program strategies are shifting to focus on environmental outcomes rather than counting agency activities.

Specifically, agencies need to provide the public with:

- Easy access to environmental data, including information on ambient environmental conditions, facility emissions, compliance status, enforcement actions, and progress in meeting the agency's own goals;
- Incentives to participate in agency priority-setting and strategic planning;
- Opportunities to be involved early in permitting processes, to ensure meaningful participation, and to resolve community concerns early, before they become intractable disputes;
- Mechanisms to ensure that public complaints will be addressed quickly and effectively; and
- Legal standing for citizens to take direct action, such as citizen suits and recovery of attorneys' fees, as an important final check on agency performance.

5. Sufficient financial and human resources

Agencies need adequate funding and staffing to establish appropriate performance goals, identify priorities, maintain core programs, measure ambient conditions, measure progress in meeting performance goals, develop and deploy all the necessary compliance tools, keep the public informed, and involve the public in key agency decisions. Agencies must also have flexibility to allocate resources among the priority problems established during the planning process and then to adjust resource allocations as priorities change.

Chapter 3.

A Framework for Evaluating Integrated Compliance Programs

The principles presented in Chapter 2 form the basis of the evaluation framework presented in a matrix format on the following page in Table 1. Each box in the matrix is phrased as a question; an affirmative answer is consistent with an effective integrated compliance program.

In the matrix, the first five major categories correspond exactly to our five principles for integrated compliance programs. Rows under each of the five headings in the matrix generally correspond to key points set out in Chapter 2's commentary on each principle.

We have also added a sixth category, "Environmental and compliance performance," to the matrix. Unlike the other five principles, which establish structural and management prerequisites for integrated compliance practice, this evaluation category provides for the collection of quantitative, aggregated data on environmental outcomes and compliance activities. Such data convey the essential context to use in evaluating how effectively an agency allocates its resources and distributes its compliance activities. To some extent, these data will also provide an indication of the overall performance of an agency's compliance program. They do not, however, make it possible to assess particular instances of agency action, and they afford only imperfect insight into an agency's vigilance in pursuit of its stated compliance objectives.

As stated in Chapter 2, we believe the basic principles embodied in the matrix, when taken all *together*, describe a *necessary*—though not necessarily sufficient—basis for establishing a sound integrated compliance program. However, the detailed content of the matrix is not exhaustive. It is, rather, the outcome of an iterative process of documentary research, interviews, and revision that we believe captures most of the essential elements and questions relevant to integrated compliance programs in the five states examined here. Applying the matrix to other state agencies would likely require some adaptation of the matrix details.

Table 1: A Matrix for Evaluations for State Compliance Programs

1. Planning						
<i>Goals and goal-setting</i>						
	Existence. Are there goals for all media and cross-media goals? Are there compliance goals? Are there environmental quality goals as well as agency process goals?	Basis. Does the agency have an established process for data analysis and problem identification?	Characteristics. Are the environmental quality goals specific and clear? Are the goals measurable and measured?	Process. Is the agency staff involved in setting agency goals? Program office goals? Are the goals effectively communicated to the staff?	Variability. How much do agency goals change from year to year?	
<i>Strategic implementation</i>						
Strategic plan	Existence. Does the agency have a document (or set of documents) that translate agency goals into office work plans or commitments?	Completeness. Does the strategic plan reflect the agency's legislative requirements? Its federal program requirements?	Compatibility with EPA oversight. Are the plan and its priorities reflected in a National Environmental Performance Partnership System (NEPPS) agreement or a similar working agreement with EPA?	Linkage to goals. Is the strategic planning process tied to agency goals? Are the program office work plans tied to agency goals?		

<p>General planning process and strategy</p>	<p>Targeting. Within the general agency goals, does the agency identify specific problem areas to focus on in a particular year? Is the basis for these targeting decisions valid?</p>	<p>Agency-wide coordination. Does a process exist by which the work planning of disparate offices is coordinated around achieving agency goals and focusing on specific problem areas or initiatives?</p>	<p>Core program maintenance. Does the agency have a strategy for maintaining core programs while it addresses priorities?</p>	<p>Appropriate time horizon. Does the strategic planning process use a long enough time horizon to allow meaningful measurement of progress in meeting agency goals?</p>	
<p>Compliance planning and strategy</p>	<p>Targeting. Does the agency identify specific compliance issues to be addressed in each planning cycle? Are there established targeting criteria?</p>	<p>Agency-wide coordination. Does an agency-wide process exist by which compliance resources (inspection, enforcement, and compliance assistance) are allocated to compliance priorities?</p>	<p>Core program maintenance. Does the agency have a strategy for maintaining core compliance programs while it addresses priorities?</p>	<p>Tool selection Does the agency have a process for identifying which compliance and beyond-compliance tools should be used to address priority problems? Does the state have a deterrence strategy?</p>	<p>Universe identification. Is there a strategy for identifying regulated facilities that are not currently in the system?</p>
<p>Accountability mechanisms <i>Do mechanisms exist to ensure that the commitments or work planning documented in the strategic plan are in fact implemented?</i></p>	<p>Personnel evaluations. Are program office goals reflected in staff performance evaluations? In managers' evaluations?</p>	<p>Individual responsibility. Are specific agency personnel responsible for specific goals? Is this information available to the public?</p>	<p>Integration of regional offices. Are the responsibilities of regional offices clearly set out? Do these offices share responsibility for meeting agency-wide goals?</p>	<p>Tie to resource allocation. Are commitments made in the strategic plan tied to budgeting and approval of expenditures at the office or program level?</p>	

<p>Other</p>	<p>Adaptive management. What process exists to adjust strategy or implementation on the basis of performance against goals or objectives? Is performance assessed both on the basis of activities and outcomes?</p>	<p>Resource flexibility. Can budgets be readily adjusted and personnel readily reassigned to work on strategic priorities?</p>
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2. Data, measurement, and monitoring
Ambient environmental and emissions monitoring

<p>Water</p>	<p>Surface water. What percentage of the state's rivers and streams are regularly monitored? What percentage of the state's lakes are regularly monitored?</p>	<p>Discharge monitoring. What percentage of facilities with water discharges submit discharge monitoring reports (DMRs)?</p>	<p>Drinking water. Are all of the state's public drinking water supplies monitored?</p>
<p>Air and land</p>	<p>Ambient monitoring. Does that state have an ambient air monitoring network sufficient to provide baseline measures for its goals and to measure progress in meeting those goals?</p>	<p>Emissions monitoring. What percentage of major facilities have continuous emissions monitors?</p>	<p>Hazardous waste generation. Does the state track hazardous waste generation? Disposal?</p>

Environmental and compliance data capabilities					
	<p>Automated permit exceedence detection. Does the state have automated DMR and Continuous Emission Monitoring (CEM) systems that identify permit exceedences?</p>	<p>Agency data integration. Are media databases accessible across the agency? Is there an on-line multimedia tracking system for enforcement? Do agency-wide standards for data system development exist?</p>	<p>Compliance data comparability. Do compliance terms have comparable meanings across the agency? That is, are compliance program activity levels and compliance information reported by the various media offices in fact comparable?</p>	<p>Facility identification. Is the state developing a system for geospatial identification of its regulated facilities? If yes, what percentage of facilities have geospatial identifiers?</p>	
Performance Measurement					
<p>Metrics for goals and priorities</p>	<p>Identifying metrics. Does the state identify a logical set of both environmental outcome and activity-based metrics to be used to measure performance against goals and priorities?</p>	<p>Utilizing metrics. Does the state periodically measure progress using these metrics? How frequently?</p>	<p>Goal baselines. Does the state establish clear baseline measurements for all of its goals?</p>	<p>Metric consistency. Do regional offices use consistent definitions and data reduction protocols when reporting to the central office?</p>	

<p>Specific measurement issues</p>	<p>Compliance rates. Does the state track compliance rates? If so, what process/criteria are used to ensure accurate compliance rates?</p>	<p>Deterrence measurement. Does the state measure the deterrent effect of its enforcement tools?</p>	<p>Voluntary programs. Are programs designed to incorporate results assessment? Do these extend beyond participation levels or other activity-based metrics?</p>	<p>Compliance initiatives. Are particular efforts made to measure the results of targeted or integrated compliance initiatives?</p>
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Performance Evaluation

	<p>Integrated compliance program evaluation. Does the agency have a process for evaluating the effectiveness of its strategic plan? Its compliance and beyond-compliance tools? Its enforcement efforts?</p>	<p>Process for relating activities to environmental outcomes. Does the agency have a process for relating compliance activities to trends in emissions or environmental conditions?</p>	<p>Targeting process. Does the state have a process for gathering and using data to target its enforcement and compliance efforts?</p>
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3. Compliance tools and process

Permits

	<p>Enforceability. Are there established criteria for ensuring that permit conditions are enforceable? Does enforcement staff review permits?</p>	<p>Backlogs. Are there permit backlogs in any program? Have permit backlogs required reassignment of enforcement or inspection staff to permitting work?</p>	<p>Revocation authority. Is the agency's ability to revoke or suspend permits limited?</p>	<p>Permit bar. Does the state have a permit bar that applies to "bad actors"?</p>	<p>Necessity. Does the state preclude water or air discharges without a permit ("no discharge laws")?</p>	<p>Consistency. What measures exist to ensure consistency of permit language within and across media programs?</p>
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Inspections

	<p>Inspection goals. Does the agency have inspection goals? Are inspection frequencies for particular programs part of the NEPPS negotiations?</p>	<p>Restrictions. Are there restrictions on how the agency can conduct inspections (e.g., advance notice requirements)?</p>	<p>Multimedia integration. Does the agency conduct multimedia inspections? What percentage?</p>
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Civil enforcement					
<p>Tools and procedural restrictions</p> <p><i>With regard to each tool, two essential questions exist:</i></p> <p>1. <i>Is the tool available to the agency?</i></p> <p>2. <i>What substantive or procedural restrictions may exist on the use of the tool?*</i></p> <p><i>*(e.g., delayed effect dates, appeals, preconditions, burden of proof, attorney fees)</i></p>	<p>Informal techniques. (Can include, for example, calls, meetings, warning letters, and notices of violation (NOVs).)</p>	<p>Field citations.</p>	<p>Nonpenalty administrative orders (Can include, for example, corrective, stop work, and emergency orders.)</p>	<p>Administrative penalty orders. Note penalty ceilings under "restrictions."</p>	<p>"Red-tag," injunctive, or "cessation" authority</p>
	<p>Civil judicial penalties. (Note penalty amounts and venue under "restrictions.")</p>	<p>Bad actor statutes; contractor debarment.</p>	<p>Supplemental enforcement projects (SEPs).</p>	<p>Community service requirements.</p>	<p>Injunctive relief.</p>
<p>Process</p>	<p>Stepped or "gated" enforcement procedure. Is there a consistent and public stepped or gated enforcement process for the agency? Does the procedure appear to restrict the use of formal enforcement tools?</p>	<p>Referral discretion and criteria. Are criteria/discretion for referral from the inspection function/media offices clear?</p>			

Criminal enforcement				
	Availability of sanctions. What programs have criminal sanctions? What criminal sanctions are available?	Criminal investigation capability. Does the state have an environmental crimes investigative capability? Is there a distinct environmental crimes unit or task force?	Threshold or criteria for criminal prosecution. In practice, what is the standard of conduct for environmental crimes? Is the threshold so high as to effectively preclude criminal prosecution?	
Compliance and beyond-compliance incentives				
Tool utilization <i>With regard to each tool, two essential questions exist:</i> 1. <i>Does the agency use the tool ?</i> 2. <i>Is this tool consistent with norms of good practice?*</i>	Recognition programs.	Leadership programs. (Leadership programs offer regulatory benefits to participants in return for good compliance history, and, often, beyond-compliance commitments)	Audit policy or legislation.	Other. Does the state employ other compliance incentives not required by federal law?
Other	Integration. To what extent are compliance and beyond-compliance incentives employed in conjunction with traditional enforcement actions (e.g., in integrated compliance initiatives)?			
* Essential elements of best practice for voluntary programs include clear objectives; provision for assessment in the program design; an appropriate match between environmental problem/context and the type of voluntary approach employed; and minimization of conflicts between public environmental and policy goals with private sector motivations. See Mark Stoughton, Karen Shapiro, and Dima Reda. <i>Do Voluntary Mechanisms Work?</i> Tellus Institute (2000). www.tellus.org				

Compliance assistance

	<p>Range of tools. Does the agency show a willingness to employ a full range of compliance assistance tools (e.g., plain English guides, site visits, helplines, technical assistance?)</p>	<p>Integration. Are compliance assistance activities well integrated with rulemaking, as well as with other aspects of the compliance program?</p>	<p>Credibility. What mechanisms exist to clearly distinguish between compliance assistance and enforcement functions (e.g., confidentiality)?</p>	<p>Responsiveness. What mechanisms exist to ensure that compliance assistance activities are responsive to the needs of the regulated community?</p>	
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4. Informing and interacting with the public

Public reporting

<p>State of the environment and other public reports</p>	<p>Existence and frequency. What public reports does the agency produce (e.g., state of the environment reports, reports to the legislature or governor's office)? With what frequency?</p>	<p>Agency goals and progress. Do the reports set out agency goals and priorities? Do the reports provide accessible baseline and progress measurements against these goals?</p>	<p>Emissions and ambient conditions. Does the report contain accessible information on ambient environmental conditions and emissions? Are trend data presented and environmental or public health implications explained? Is the information regionally disaggregated?</p>	
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<p style="text-align: center;">On-line information</p>	<p>Agency goals and progress. Does the agency make public its goals and priorities?</p> <p>Does the public have access to baseline and progress measurements against these goals? Are Core Performance Measures readily available to the public?</p>	<p>Emissions and ambient conditions. Is information on ambient environmental conditions and emissions available? Are trend data presented and environmental or public health implications explained? Is the information regionally disaggregated?</p>	<p>Permit and compliance information. Does the public have web access to permit and compliance information and statistics? At the facility level?</p> <p>If so, through what mechanism?</p>		
Public involvement					
<p style="text-align: center;">General</p>	<p>Agency goals and priorities. Does the public have a role in setting agency goals and priorities?</p>	<p>Rulemaking and policy development. Does the agency have established stakeholder or other informal public involvement processes?</p>	<p>Participation assistance. Are technical assistance grants or other mechanisms available to assist citizen or civil society participation in agency proceedings?</p>	<p>Role in voluntary programs. What role did the public have in designing the programs? What role does the public have in reviewing program results? Does the agency encourage facilities to involve the public in informal processes?</p>	

Environmental complaints and direct action	Complaint mechanism. Does the agency have a centralized mechanism for addressing environmental complaints?	Complaint handling goal. Does the agency have a goal for timely handling of complaints?	Whistleblower protection. Does the state have whistleblower protection?	Direct action (citizen suits). Does the state authorize citizen suits? Do citizens use this authority? Can attorney fees be recovered in citizen suits?
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5. Financial and human resources

Budget	Overall state funding. Has state funding, adjusted for inflation, increased or declined over the past five years?	Overall federal funding. Has federal funding to the state, adjusted for inflation, increased or declined over the past five years?	Program variability. Has funding for any individual program increased or declined by more than 25% over the past five years? How are funding levels for core programs determined?	Flexibility. Can funding be readily reallocated among media programs? If so, how and by how much?	Inspection resources. Have inspection resources increased or decreased more than 10% in any program in any of the past five years?	
	Staffing	Overall staffing. Has overall agency staffing increased or declined in the past five years?	Enforcement staffing. Has the staffing for traditional enforcement activities increased or declined over the past five years? By how much?	Compliance assistance staffing. Has the staffing for compliance assistance activities increased or declined over the past five years? By how much?	Flexibility. Can staff be readily reassigned to priority programs?	Staffing determination. How are staffing levels for core programs determined?

6. Environmental and compliance performance

<p>Environmental and compliance results</p>	<p>Performance against goals. Is the state making measurable progress in meeting its environmental goals?</p>	<p>Compliance rates. What compliance rates have been achieved in each program over the past five years? What is the five-year trend?</p>				
<p>Compliance activity</p>	<p>Inspection. Are inspection goals being met? What are the trends in frequency of inspections?</p>	<p>Assistance. What are the trends in demand for compliance assistance activities?</p>	<p>Enforcement. What are the trends in referrals, penalties, repeat violators, and formal actions at each stage in a gated or stepped enforcement process, and what are apparent contributing factors?</p>	<p>Permits. What are the trends in permit backlogs, and what are apparent contributing factors?</p>	<p>Complaint resolution. Is the agency's complaint handling goal being met?</p>	<p>Voluntary programs and outreach. What are the trends in activities and reported environmental results?</p>

Chapter 4. Strengths and Gaps: Summary Analysis of State Programs Using the Evaluation Framework

This chapter draws on our detailed state appendices and provides a *summary* analyzing the five state programs using the assessment framework/matrix set out in Chapter 3. The intent of this chapter is not to provide a line-by-line evaluation of each state against the matrix. Instead, we have identified, within the five broad assessment categories, the strengths and gaps of the five states' compliance programs. We consider as strengths those aspects of state programs that strongly embody a "structural or management prerequisite" for integrated compliance. "Gaps" are elements important for an effective compliance program that are lacking in a state or elements for which we found no evidence.

Note that the state cases are discussed here separately, without strict cross-comparison. Further, like the state appendices themselves, this chapter reflects data current at the time the state interviews were conducted. Interviews were held in the first quarter of 2001 for Indiana, Wisconsin, and Illinois, and in the first quarter of 2002 for Michigan and Minnesota.

4.1. Strategic planning

Illinois

Illinois EPA (IEPA) has conducted strategic planning since 1992 and has incorporated its strategic plans into its Performance Partnership Agreements (PPAs) since 1996, when it was one of the original states to participate in NEPPS. IEPA's strategic plans have provided a foundation for the agency to determine its programmatic goals and develop measures to track its progress in achieving those goals. IEPA's planning efforts are noteworthy in their continuity and their involvement of the public through listening sessions. IEPA has also been effective in coordinating with EPA Region V about the priorities for its strategic plans. Illinois has been able to identify opportunities for sharing information and, occasionally, workloads with Region V, especially for pursuing multimedia enforcement cases.

However, there is little information to suggest that IEPA's planning process has translated more concretely into decisions on how to target those general goals toward specific environmental problems. Moreover, it is not apparent whether or how IEPA has linked the workplans and resource allocations of its media-specific bureaus to the goals in its strategic plan or whether the performance evaluations of its managers and staff reflect the goals of the plan.

Indiana

The Indiana Department of Environmental Management (IDEM), like all the other states in this study (except Michigan) participates in NEPPS. IDEM thus enters into an *environmental performance partnership agreement* (EnPPA) with EPA Region V, and that agreement sets out IDEM's priorities and commitments for its federally delegated programs.

In IDEM's case, its EnPPA effectively functions as the agency's strategic plan. The EnPPA sets out (1) the agency's strategic and environmental *goals* and (2) two sets of *priorities* for the

agency to move toward achieving its larger strategic and environmental goals. These two are the “agency-wide priorities” and the “office priorities.”²⁷

The use of the EnPPA as IDEM’s strategic plan intrinsically supports its *strategic implementation* process by which overall agency goals are translated into workplans and resource allocations. The goals and deliverables documented in the EnPPA for each media office are tightly tied to IDEM’s federal program commitments and, thus, the agency’s core regulatory functions. This link, and the establishment of the goals themselves, are strengths of IDEM’s planning process.

In contrast to these strengths, however, IDEM’s plans thus far lack a strong connection between “office priorities”—the specific deliverables and commitments of the core regulatory programs—and agency-wide priorities. The draft agency-wide priorities for 2001–2003 identify providing “quality environmental services” as an agency priority. This is the first time that IDEM’s plan has made core regulatory functions, which correspond to media office priorities, an agency-wide priority.

IDEM has been developing a mechanism for agency-wide coordination and planning of compliance activity. It has established the Compliance/Enforcement Team (CET), composed of all the compliance branch chiefs (i.e., compliance managers within the major media offices) as well as the enforcement office. In general, the CET is charged with setting overall agency compliance priorities on a biennial basis. In so doing, it will also address issues of consistency, measurement, and integrated use of compliance tools. The CET has been strongly supported by senior IDEM management and will be further supported by a new Office of Planning and Assessment (OPA). The OPA will solicit compliance priority nominations from the media programs and provide supporting analysis using environmental and compliance data. At the time of the research, the CET was soliciting compliance priority nominations from the media offices. In concept, the CET is clearly a significant step toward compliance management at IDEM.

Michigan

Over the past several years, the Michigan Department of Environmental Quality (DEQ) has worked to institute a comprehensive strategic planning process. The process is driven by Department Targets (the highest-level statement of DEQ goals), as well as Means and Measures set each year by senior DEQ management. Department Targets have been quite stable and incorporate core media program operations in two explicit ways; they emphasize efficiency/effectiveness in execution and “improving rates of compliance with environmental requirements in targeted areas.” Equal or greater emphasis is also placed on increasing the use of voluntary and alternative approaches, and the targets are closely linked to division and office workplans, as well as individual performance.

DEQ has launched a significant effort to achieve greater consistency in the approach to compliance evaluation and enforcement across the divisions’ implementation of the agency’s compliance and enforcement plan. DEQ is also investing significant effort in a mechanism for performance measurement and adaptive management: the “Director’s Dashboard,” which is a set of key indicators for department and division performance. While there is not a one-to-one correspondence with the nine Department Targets, Dashboard indicators are intended to monitor the “vital functions” that are embodied in many of the targets and are of key concern to the DEQ Director. These vital functions fall into five categories: compliance, permits, business operations,

²⁷ IDEM’s EnPPA does cover all programs, regardless of funding source, though EPA Region V conducts oversight only for the delegated programs.

customer service, and program modification/reengineering. DEQ's divisions report their Dashboard indicators quarterly to the Director; the indicators are not reported publicly.

Despite this generally strong planning process, it should be noted that DEQ's targets are process goals, not commitments to particular environmental quality objectives. While targeted compliance efforts are a department target, these are proposed separately by each division, and there appears to be limited cross-division coordination or cross-media compliance planning. Department-level strategic planning is more mature and fully realized than DEQ's integrated compliance planning.

Minnesota

The Minnesota Pollution Control Agency (MPCA) developed a five-year strategic plan in 2000. The plan includes general environmental outcome-based and process improvement-based goals. MPCA's PPA translates the general goals from this five-year plan into much more specific objectives. In turn, many of these specific objectives include outcome measures (referred to as "pressure" and "state" measures) and specific activities (referred to as "response" or "output" measures) that are designed to meet each objective. The activities matrices associated with MPCA's PPA include several compliance and enforcement functions, which are agency commitments designed to achieve the objectives set out in the agreement. However, the PPA does not address how the various compliance assistance, enforcement actions, and voluntary programs will be integrated.

MPCA used multivoting technology at public meetings to help it develop the five-year plan and plans to consult the public in revising the strategic plan. But its planning process, including the development of the PPA with EPA, is essentially an internal agency process.

MPCA links its strategic goals to individual workplans. However, enforcement targeting, at least for major facilities, is focused more on meeting EPA's inspection goals than on carrying out MPCA's own strategic priorities.

MPCA's GOAL 21 planning process was designed to improve customer service by increasing the role of regional offices and to move away from traditional media offices to a cross-media structure where individual staff members were responsible for several programs; but it created major disruptions in MPCA programs. Permit backlogs in the water program grew, the average time needed to reissue a water permit increased significantly, inspection frequency dropped, and the number of enforcement actions fell. As a result of the dramatic effect that the reorganization had on core agency functions, the MPCA abandoned parts of the GOAL 21 structure in late 2001. Instead, MPCA now has a structure that allows it to focus more attention on permitting, inspections, and enforcement for major sources of air, water, and waste pollution. MPCA's new organizational structure makes the regional offices accountable to the Director of the Regional Environmental Management Division, with the goal of increased consistency across regional offices.

Wisconsin

The Wisconsin Department of Natural Resources (DNR) has a fairly well developed strategic planning process. Its recent strategic plan includes four priority areas, an implementation plan to tie the priority areas to specific objectives that can be measured and tracked, and a work planning process that translates the objectives into day-to-day tasks for employees. DNR strategic objectives constitute about 35 percent of individual employees' workplans. The strategic implementation plan has a fairly limited set of environmental objectives:

- a. By 2007, revise at least 10 standards per year and adopt 5 new standards per year, beginning in 2001;
- b. By 2007, see that 90 percent of Wisconsin's population served by public water supplies will receive drinking water that meets health standards established as of January 1, 2000;
- c. By 2002, develop a policy framework to reduce pollution from Persistent Bioaccumulative Toxins (PBTs);
- d. By 2007, reduce the quantity of PBTs and other toxics introduced into the environment by 10 percent compared with year 2000;
- e. By 2002, develop a monitoring plan and by 2007 complete the field work needed to determine (1) the degree and extent of PBT contamination, and (2) what additional fish and wildlife consumption advisories are needed;
- f. By 2007, in partnership with the Division of Health, increase public awareness of the health risks of consuming fish or wildlife from the 54 percent in a 1998 sample to 70 percent or more of the Wisconsin public; and
- g. By 2007, decrease the number of impaired river miles and lake acres by 10 percent compared with the number in 2000.

DNR's implementation plan does include some enforcement objectives:

- a. By 2006, increase the compliance rate of facilities inspected for air emissions, hazardous waste, and point-source water discharges by 10 percent compared with 2000;
- b. By 2007, eliminate ozone standard violations;
- c. By 2002, establish a baseline compliance rate for facilities or activities meeting non-point source performance standards and by 2007, increase by 15 percent the compliance rate compared with the baseline year; and
- d. By 2007, reduce the number of contaminated properties subject to DNR jurisdiction by 35 percent compared with the base year of 2000.

4.2. Data, performance measurement, and monitoring

Illinois

IEPA has used the core performance measures, adopted by the states and EPA as part of the NEPPS process, to establish metrics and collect data on all the major media programs: surface water, ground water, drinking water, and ambient air, as well as the generation and disposal of hazardous waste. These data have then been reported to the public in IEPA's annual state of the environment reports, beginning in 1996. IEPA has also used data from its air sampling network to prepare annual reports on air quality, as well as daily electronic reports of an air quality index for various cities. For tracking water quality, IEPA operates an extensive network for monitoring groundwater through 362 community water-supply wells; but recent funding limitations for that program have reduced the frequency of monitoring to only once every two years.

To monitor and measure the results of its compliance and enforcement initiatives, IEPA is working on establishing a cross-media data system—the Agency Compliance and Enforcement System (ACES)—that will combine information from the three major bureaus and the Legal Division into a single database. IEPA plans that ACES will integrate all three bureaus’ environmental and compliance data on specific facilities, including permits, fee payments, inspection results, enforcement histories, and other compliance information. These data will then provide the bureaus and the Legal Division with a comprehensive picture of how regulated facilities are performing. It is not clear whether ACES will be available to the public or whether it will have the capacity to automatically detect situations where a facility’s emission or discharge levels have exceeded its permit limits.

Despite collecting extensive data on environmental conditions and issuing various reports to the public, IEPA has not yet been able to establish the capacity to relate its compliance activities to trends in emissions or environmental conditions. Nor have these data been used to evaluate the effectiveness of its leadership programs, compliance assistance, or traditional enforcement actions.

Indiana

IDEM has developed and deployed an agency-wide compliance action and notice database called METS (Multimedia Enforcement Tracking System). METS is designed to provide a single record-keeping system for compliance activity in all media. One task of IDEM’s CET (see the Indiana section under Strategic Planning) is to increase the consistency of the compliance terminology used by the various divisions. This change will make the database more useful for cross-media comparisons and for compliance targeting/management. This unified data system is a significant strength for the agency.

At the time of our research, IDEM was deploying another database to log and track the activities of the agency’s Confidential Technical Assistance Program (CTAP). CTAP operates under strict statutory confidentiality requirements, but the database is intended to accommodate these requirements while (1) providing a searchable archive of compliance questions and answers, (2) serving as a tool for compliance assistance targeting, and (3) supporting program reporting requirements.

Beyond the strengths represented by these two databases, IDEM’s current data/information technology (IT) capabilities vary significantly by media office and section. However, IDEM is also in the early stages of planning an agency-wide data project that would integrate all current permit/compliance databases. IDEM’s ambient monitoring capabilities are roughly typical of most states.

Except in the area of permit timeliness (see below), IDEM has not developed a management information system for tracking progress under goals and priorities, such as the Michigan DEQ’s Dashboard. However, IDEM does report periodically to EPA on its progress in meeting the commitments and targets in its EnPPA.

Michigan

One of DEQ’s targets—a highest-level agency goal—is to “implement a comprehensive system to establish environmental baselines and measure environmental improvements.” This target is mirrored in DEQ’s statutory charge to produce, with the Michigan Department of Natural

Resources, a “biennial report on the quality of the environment, based on scientifically supportable environmental indicators, and using sound scientific methodologies.”²⁸ DEQ’s efforts are in part guided by a report of the Michigan Environmental Science Board (MESB), an independent advisory body. DEQ’s state of the environment report is unusually strong and promises to become stronger if ambient monitoring networks, particularly for water, can continue to be improved. DEQ is also trying to standardize and coordinate its water sampling protocols and locations with DNR and the U.S. Geological Survey, per the recommendations of the MESB. DEQ just finished its first complete watershed assessment and issues various other regulatory reports.

DEQ is investing significant effort in an emerging high-level instrument for agency monitoring and adaptive management, the Director’s Dashboard (discussed earlier under Strategic Planning). The Dashboard is composed of a set of key indicators for department and division performance.

Against these department-wide strengths, it should be noted that DEQ’s compliance data capabilities vary significantly by division, although all divisions described ongoing or planned work for significant upgrades to IT systems. There is as yet no unified access to facility compliance information, though this is the goal of the DEQ’s facility identifier project.

Finally, DEQ has been a leader in developing voluntary leadership programs. With more than 40 participants, its Clean Corporate Citizen program enjoys unusually strong industry support. These programs are driven by certain “first principles”: the department utilizes the private sector’s willingness, where it exists, to go beyond compliance, particularly to address environmental issues for which regulatory tools are limited. A method of reporting program results has been devised for each program. However, DEQ has not developed a more systematic method for evaluating the environmental results of these programs overall. This is not a *relative* weakness—to our knowledge, no state has done so. But it does reflect the intrinsic difficulties of evaluating voluntary efforts and highlights the fact that such evaluation is a significant outstanding challenge for most state agencies.

Minnesota

Minnesota uses three sets of measures to evaluate its progress on environmental issues, including measures of environmental *pressures* (e.g., releases or emissions), environmental *states* (ambient conditions), and *responses* (activities undertaken to address environmental concerns). These measures are used extensively in the MPCA’s PPA and, together with the EPA/ECOS Core Performance Measures, form the basis of MPCA’s self-assessment under the NEPPS program.

Minnesota has an extensive air toxics monitoring network that allowed the agency to develop an air toxics staff paper that identified several areas in the state where air toxics exceeded health standards.²⁹ MPCA is evaluating its particulate monitoring network and hopes to upgrade that network soon to include some continuous monitoring stations. Minnesota recently added an additional ozone monitoring station and is evaluating its overall ozone monitoring system. But the state’s water monitoring capacity is very limited, covering only about 5 percent of the state’s waters geographically and only about 19 percent by quantity.

²⁸ *State of Michigan’s Environment 2001: First Biennial Report*. November 2001. Office of Special Environmental Projects, Michigan Department of Environmental Quality, Lansing. Cf. P.L. 195 of 1999.

²⁹ Minnesota Pollution Control Agency, *Staff Paper on Air Toxics* (November 1999).

Wisconsin

The DNR's Strategic Implementation Plan, its watershed plans and its proposed new non-point source program are all performance oriented and include specific outcome measures. These new measures will, in many cases, require several years of data to be able to establish trends that show any progress, or lack thereof. But they should allow the DNR to make better management decisions over the long run and should help the public evaluate the agency's effectiveness. DNR began to focus more on measurement in 1999, but the agency still sees itself as "data rich but information poor" and is working on upgrading its information systems and outcome measurement capacity.

DNR calculates compliance rates based on the number of facilities that are inspected versus the number of those facilities at which violations are identified. Regional offices now report enforcement data to DNR's headquarters but did not do so for the first several years under the 1996 reorganization, making oversight of regional enforcement actions difficult.

4.3. Compliance tools and process

Illinois

IEPA has calculated compliance rates for its three major bureaus—Air, Water, and Land—that show high levels of compliance: about 90 percent for air and wastewater, 87 percent for drinking water, and 70 to 80 percent for waste programs except open dumps, which have a 50 percent compliance rate (see the graphs in section 7 of the Illinois appendix). Over a three-year period from 1997 to 1999, the number of Illinois inspections and sites found to be noncompliant has been fairly constant, except for inspections by the Land Bureau, which fell from over 6,000 per year in 1997 to less than 5,000 in 1999. During the same period, there were some variations in the types of enforcement mechanisms used by the three bureaus. However, the Air Bureau increased its use of informal Non-Compliance Advisories (NCAs), accompanied by a corresponding decrease in its more formal Compliance Commitment Agreements. Similarly, the Land Bureau decreased the number of violation notices it issued, which appear to correspond to the decreased number of inspections.

Despite these compliance rates and the steady amount of enforcement activities, IEPA is rather constrained in its ability to produce quick results when violations are discovered. By statute, Illinois has established a very cumbersome and time-consuming administrative process that IEPA must follow to correct violations of its laws and regulations. Unless a facility is willing to correct its violations voluntarily when it receives an informal NCA, IEPA must pursue the matter through four or five more administrative actions, including a lengthy process for a hearing before the Illinois Control Board (section 31 proceedings). Moreover, IEPA can assess administrative penalties in only limited situations, can issue administrative citations only for solid waste violations, and must rely on the attorney general's office if it wants to pursue a matter in state court. Adoption of a more streamlined administrative process for correcting violations would greatly strengthen IEPA's enforcement and compliance program.

Although IEPA has launched a number of programs to encourage innovation and pollution prevention by regulated facilities, industry participation has been limited. Several of these incentive programs have been discontinued or have had only a few participating facilities. It is not clear what the barriers to the success of these programs are, whether a lack of sufficient incentives, inadequate outreach to the regulated community, or procedures that are too

complicated. Consequently, IEPA cannot determine whether its innovation programs have produced measurable results or improvements in the facilities' environmental performance.

Indiana

IDEM essentially has four different enforcement tracks: (1) Minor violations may never be referred for enforcement action by the regulatory office and are resolved via an informal agreement with the violator. Referred violations may enter into (2) informal or (3) formal administrative enforcement or (4) criminal enforcement. Among these different tracks, IDEM has a relatively full complement of enforcement tools, and in principle its administrative enforcement procedures present no special or unusual obstacles to civil enforcement actions. However, formal administrative enforcement is the only means by which IDEM can recover substantial civil penalties. Under its procedures, alleged violators have the opportunity to enter into an *agreed order*, involving corrective action requirements and, typically, a civil fine. The fine may be up to \$25,000/day of violation, though generally the amount is much smaller. Failure to enter into an agreed order within 60 days results in the issuance of a *commissioner's order*, a unilateral order compelling corrective action.

IDEM is making significant efforts to increase the consistency of its enforcement activity via its cross-media compliance enforcement team (CET—see the Strategic Planning section). The CET is also intended to be a vehicle for targeting compliance resources to address high-priority problems. This change may require employing the cross-media resource flexibility theoretically available to IDEM under its federal performance partnership grant. To date, IDEM has not exercised such flexibility in its compliance program.

IDEM generally views the primary job of its facility inspectors as identifying violations and assessing their severity, not as compliance assistance. However, inspectors do actively refer P2/technical assistance problems to the Office of Pollution Prevention and Technical Assistance. It should be noted that IDEM's technical assistance program operates under strict statutory confidentiality requirements and is frequently used by regulated facilities. (These points are noted for context only; the study draws no conclusions regarding the effectiveness of different methods of organizing and delivering the compliance assistance function.)

It should also be noted that before the deployment of EPA's National Performance Track program, IDEM had developed a leadership program called the 100 Percent Club and had enrolled 20 members, including three in the highest tier. But IDEM's program was discontinued as a separate entity to avoid duplication with National Performance Track.

Michigan

Michigan DEQ generally lacks administrative penalty authority (although it has developed a "fast track" enforcement mechanism allowing "no contest" resolution of violations to similar effect. Otherwise, DEQ has access to a full suite of enforcement tools. By statute, the agency must generally give violators the option of entering into a consent agreement before proceeding through an escalated enforcement process. However, there are no unusual constraints on DEQ's ability to pursue enforcement or on its access to enforcement instruments, including criminal actions; and DEQ has 15 to 20 investigators in its Office of Criminal Investigations.

As noted earlier under Strategic Planning, Michigan DEQ is making a significant effort to increase cross-division consistency in its enforcement program via implementation of its compliance and enforcement plan. The plan sets out general principles for escalation of

enforcement responses when violations are discovered, and it standardizes the agency's terminology and compliance action tracking requirements.

DEQ has not established a "bright line" distinction between compliance assistance and enforcement in the inspection process; most divisions noted that this distinction truly emerged when a violation entered escalated enforcement. Nor does it have a confidentiality-shielded compliance assistance process. (These points are noted for context only; the study draws no conclusions regarding the effectiveness of different methods of organizing the compliance assistance function.) However, it has integrated P2 audits with financial assistance for small businesses and attempts to tie its compliance assistance agenda to the needs of the regulatory divisions with two-year staff rotations among these divisions.

As noted above, DEQ has been a national leader in deploying leadership programs and is heavily committed to voluntary approaches and innovation in its Department Targets. Examples include its leadership program (Clean Corporate Citizen), its Pulp and Paper Pollution Prevention Program, and an Emissions Trading Program.

Minnesota

MPCA has standardized its enforcement responses through its Enforcement Responses Plan, which sets out common enforcement procedures for all agency programs, and through enforcement forums that involve several enforcement staff in the enforcement decision-making process.

Minnesota has a very complete set of enforcement tools, including field citations, administrative penalty orders (APOs), and fairly comprehensive criminal enforcement authority. The APO authority requires penalties to be forgiven if violations are promptly corrected unless a repeated or serious violation is involved, essentially making many of the APOs "notices of violation with teeth." Return to compliance rates for forgivable APOs have been high. However, the legislature recently restricted the agency's APO authority for animal feedlot violations by requiring the MPCA to meet with a feedlot operator before it can issue an APO, and by requiring 75 percent of the penalty to be forgiven even in cases of serious or repeated violations if the penalty amount is spent for corrective action.

The number of MPCA's enforcement actions decreased significantly during the year that the agency implemented GOAL 21 but have since rebounded. But inspection frequency for major water quality permittees continues to fall well below EPA expectations and the agency's own goals.

MPCA has had to reduce staff time dedicated to compliance assistance because of budget cuts. However, the agency has retained a three-person small business assistance center and a three-person customer assistance center that provides basic advice over the phone. The Minnesota Technical Assistance Program is the primary source of technical assistance and pollution prevention advice in the state.

Major innovation efforts through the EPA's Project XL and the EPA/ECOS Innovations Agreement have been slow and frustrating for the MPCA. Only three projects have been finalized after more than five years of effort. As a result, MPCA is de-emphasizing these major regulatory flexibility efforts in favor of innovation as a tool to reduce permit backlogs and to deal with smaller facilities that are not as likely to be subject to federal regulation. The Office of Environmental Assistance has also launched a few innovative programs involving recycling of electronic equipment and reuse of carpeting.

Wisconsin

DNR has undergone a significant number of structural changes over the past five years and faces continuing budget restrictions. The structural changes have included reorganizing the department's divisions, restructuring its regional offices and delegating more authority to the regions, moving the appointment of the secretary from the Natural Resources Board to the governor, terminating the position of public intervenor, and placing more focus on customer assistance. Even though DNR leadership has emphasized the agency's commitment to enforcement, some of these changes have generated significant concern about the DNR's willingness to aggressively enforce the state's environmental laws. This criticism has been raised by the state's environmental organizations,³⁰ some staff at EPA Region V,³¹ and even some DNR employees in a survey conducted by Public Employees for Environmental Responsibility.³²

Inspection and enforcement numbers in most DNR programs decreased in 1996 and 1997 following significant budget cuts and the Department's reorganization, but the numbers began to trend back up in 1999.

DNR lacks administrative penalty authority for most of its programs, leaving the agency with only some field citation authority for relatively minor violations to collect penalties, other than through a formal referral to the attorney general's office. This referral process typically takes several months to complete, and about 65 cases are referred each year.

The principal vehicle for compliance assistance in Wisconsin is the Cooperative Environmental Assistance program; its eight staff focus on assisting targeted sectors that are selected through surveys of DNR staff and consultations with external stakeholders. Media program offices do provide some compliance assistance, but their role has been reduced because of budget constraints.

Wisconsin has developed or is developing a number of innovative programs. The proposed performance-based non-point pollution program creates a novel approach to deal with previously intractable water problems. The program establishes enforceable standards for new agricultural facilities. The standards apply to existing operations if a 70 percent cost-share is available for corrective action.

DNR's use of environmental management systems (EMSs) for its own facilities provides an opportunity for DNR staff to learn how EMSs work in practice. As a result, DNR staff should be able to better assess the effectiveness of these systems when used by regulated facilities.

Wisconsin's Cooperative Environmental Assistance Pilot Project and the Green Tier program together represent a very ambitious effort to test the value of voluntary leadership programs. The Pilot Project has been slow to develop and still includes only three facilities, although five other projects are under review. The experience with the Pilot Project helped DNR and its stakeholders design its Green Tier program. DNR involved businesses and environmental organizations in developing its Green Tier program, but the authorizing legislation has not yet been passed by the legislature. One unique feature of the Green Tier proposal is a commitment by DNR to seek funding to support the participation of environmental organizations when it implements the Green Tier program.

³⁰ Interviews with environmental organizations, May 2001.

³¹ Interview with EPA Region V staff, May 2001.

³² Public Employees for Environmental Responsibility, 2000 PEER Survey of Wisconsin's Department of Natural Resources.

4.4. Informing and interacting with the public

Illinois

IEPA has been a leader among state environmental agencies in promoting meaningful public participation in its strategic planning process and industry incentive programs. IEPA has also issued public state of the environment reports since 1996 and has established numerous programs for the public to help monitor environmental conditions in lakes, rivers, forests, wetlands, and prairies, as well as wildlife protection and conservation areas. IEPA's public listening sessions have been especially effective in generating public involvement in its strategic plans.

But it is very difficult for the public to participate in IEPA's enforcement efforts, other than through the strategic planning process. Instead, Illinois citizens are required to bring their complaints to the Pollution Control Board through its cumbersome section 31 process before they can file a court action. Perhaps as a result of this requirement and the lack of state authority for citizens to recover attorney's fees, there have been relatively few citizen suits in Illinois; most have involved noise or other public nuisances.

Indiana

IDEM has placed an unusual amount of regulatory and compliance data on its website. In most cases, facility lists, permit applications and their status, and enforcement notices and actions are web accessible and often web searchable. Access to permitting information is particularly superior because IDEM provides comprehensive single-point online access to this information, including permit backlogs and permit texts.

This focus on permitting information reflects the priority placed on the permitting function. Since 1994, IDEM has been under statutory mandate to issue on-time permits. Failure to issue a permit within the allowable time entitles applicants to seek a refund of permit fees or to write their own permit terms. Reflecting this mandate, IDEM has had a "no late permits" policy since 1997, with automatic refund of fees on any late permit.

IDEM has also created a Pollution Complaint Clearinghouse for citizen complaints via phone, web, or mail. Periodic statistical summaries of types of complaints received, agency response time, and problem resolution are available on the clearinghouse website.

In contrast to these generally strong features and a standard complement of regulatory, voluntary, and P2 reports, it should be noted that DEQ does not report in an integrated, public way on progress in meeting goals. IDEM publishes both an annual state of the environment report focusing on ambient environmental quality and pollutant emissions, and an agency annual report. But while the state of the environment report compares environmental quality with regulatory standards, it generally does not compare environmental data with agency goals. The annual report states agency accomplishments under agency-wide priorities and the work of the major offices. However, it does not explicitly compare achievements with targets. Resource allocation and budget information is likewise not well publicized.

Development of Indiana's EnPPA, including the identification of agency-wide priorities, does include a public comment period, as well as stakeholder meetings. The Indiana legislature has established several standing councils and task forces that also advise the agency. These include the Compliance Advisory Panel (advising the agency on CTAP) and the Environmental Quality Service Council, which advises the commissioner on policy issues, reviews the mission and goals

of IDEM, and evaluates the implementation of the mission. Both are appointed bodies composed of state legislators and stakeholder representatives.

In addition to these strong public participation features, IDEM's rules, permits, and similar actions are subject to standard public notice and comment requirements. With resources from an EPA environmental justice grant, IDEM has also developed *IDEM's Guide for Citizen Participation*, which provides a basic tutorial on how the public can participate in core regulatory functions. However, there is little emphasis in this document on public involvement in agency planning.

Michigan

DEQ published an environmental quality report in 1999 and 2000. In 2001, under a new legislative mandate to publish a "biennial report on the quality of the environment based on scientifically supportable environmental indicators, and using sound scientific methodologies," DEQ published the *State of Michigan's Environment 2001: First Biennial Report* in cooperation with the Michigan DNR. The time series and static environmental indicators presented in first half of the report are based on the recommendations of the MESB. The second half of the report presents programmatic measures, such as levels of emissions and status of site cleanups.

Under its Community Environmental Awareness Program pilot, DEQ has put significant effort into explaining in lay terms the local environmental implications of auto assembly plants and the regulations that apply to them. The program is probably too resource intensive for general deployment, but it will inform DEQ's future efforts for communicating regulatory information to the public.

DEQ has also made most permit and emissions information available on-line, including permit status (and, in many cases, actual permit text), emissions inventories and reports, and compliance actions. DEQ's Environmental Assistance Division maintains DEQ's toll-free central contact and assistance number, a function that sees heavy use.

In contrast to these generally strong features and a standard complement of regulatory, voluntary, and P2 reports, DEQ does not report to the public in an integrated way on progress toward its goals, although the goals are published on the website; nor does DEQ report on the indicators it is developing under the Director's Dashboard. Compliance activity levels—permits, inspections, enforcement actions—are public information but are also not reported in a consolidated way. For example, single-year permit activity levels are reported in DEQ's Annual *Resource Guide*, but permit backlogs are not made public, and assembling a comparative time series takes considerable effort. This lack of information may reflect a decision on DEQ's part to emphasize environmental results, but environmental groups have expressed concern.

Public notice and comment requirements for DEQ's permitting processes are relatively standard, and legal standing generally exists for citizen suits. It should be noted that DEQ's overall goal-setting does not involve any formal process for public participation.

Minnesota

MPCA published a year 2000 state of the environment report that highlights some of the key environmental issues in the state, as well as a few trends. The report was not intended to be an all-inclusive examination of the state of the environment, nor was it directly linked to the state's goals and objectives included in its PPA. The agency also makes a summary of enforcement actions available on its website, updated quarterly. The governor's office held statewide

meetings on environmental priorities soon after the 1998 election, and MPCA used multivoting technology to obtain citizen advice on its strategic plan. It also intends to consult with citizens as it revises the plan.

There has been very little public involvement in the development of MPCA's PPA, which contains the most specific delineation of agency goals and objectives. The principal process for public involvement in MPCA's permitting process is public notice at the draft permit stage and the opportunity to request a contested case hearing. But for big projects, the agency urges permit applicants to work with nearby communities early in the permitting process.

Wisconsin

Wisconsin's vision for its IT systems is that "information is shared with all people, in a form they can use, when and where they want it, to make knowledgeable choices to protect and enhance Wisconsin's natural resources." The agency's new Fact System allows the public to access environmental release data.

Wisconsin publishes a state of the environment report that contains some trend data on air emissions, hazardous waste generation, cleanups of contaminated property, environmental compliance, and water quality. The report does not track progress on specific agency goals.

Stakeholders have played a major role in developing DNR's Green Tier program, and each of the Environmental Cooperative Pilot Projects has tested innovative ways of working with the public.

4.5. Financial and human resources

Illinois

Over the past five years, IEPA's funding has increased substantially, from a low of \$237.7 million in FY 1996 to an estimated high of \$526.5 million in FY 2001. Although the federal funds received by IEPA from EPA have stayed relatively steady, IEPA has had large increases in the amounts it has received from the state legislature. The Bureaus of Air and Land have received substantial funding increases, as has IEPA's central administration. But funds for the leaking underground storage tank program have decreased.

Despite general increases in funding, IEPA has not had any significant changes in staff numbers over the past five years. Because IEPA does not have data on its staffing broken out by bureau or function, it is not possible to determine whether staff have shifted from the core programs to running the leadership or compliance assistance programs. It is noteworthy, however, that at least one IEPA compliance assistance effort—the Clean Break program for small businesses—has been discontinued because it required so much staff time.

Indiana

IDEM has enjoyed relatively stable funding and staffing levels over the past several years. Indiana relies heavily on fee-based funds, which provide up to 45 percent of the agency budget. However, balances can accrue and do not lapse to the general fund at the end of the budget cycle. In principle, these funds give IDEM some insulation from year-to-year variation in the state budgets. This comparative funding and staffing stability is a substantial benefit and strength for the IDEM. However, a number of NGO representatives interviewed for this study noted that

staffing levels at IDEM remain a concern and that the agency never received the substantial staffing increase called for by a multistakeholder commission in the early 1990s.

Michigan

Over the past five years, Michigan DEQ's total budget, as measured by initial appropriations and excluding contingency and bond funds, has varied by no more than 5 percent; and the relative proportions of federal funds, and state general and restricted funds have remained relatively unchanged. Overall staffing has increased very little—about 1 percent between FY 1998 and FY 2002—but the department has been able to shift staff into its air program, largely from the emergency response and storage tank divisions.

Restricted funds have contributed approximately 32 percent of DEQ's budget on average over the past several years. The legislature appropriates from these funds as part of the budgeting process; however, fund balances do not lapse to the general fund at the end of the fiscal year. This relatively heavy reliance on restricted funds increases DEQ's budget stability, but tends to decrease flexibility.

DEQ has also benefited significantly from the Clean Michigan Initiative (CMI), a \$675 million state bond issue. While CMI provides little support for DEQ's operating expenses, it has provided DEQ with significant grant and project resources focused on brownfield cleanup and redevelopment, waterfront development, water quality and ambient monitoring projects, and pollution prevention, including an endowed technical assistance program and a low-interest loan program for small businesses.

This funding and staffing stability is a substantial benefit and strength for DEQ. Even so, funding and staff resources are still constrained, and agency managers must regularly make trade-offs among internal priorities. For example, the air program has shifted resources from inspections to permitting in response to Title V permitting needs; and the water program lacks sufficient grant managers to administer its non-point source grant funds.

Minnesota

By 2003, MPCA anticipates that staff levels will be down more than 10 percent from their peak of 805 in 1997. Budget shortfalls in the current biennium may result in even fewer staff. Because of these reductions, the agency has eliminated most of the positions dedicated to compliance assistance and pollution prevention. MPCA has also proposed an enforcement "queue" that would focus most enforcement activities on violations by EPA-designated major facilities; and it has focused the efforts of its Major Facilities and Remediation Division on core functions such as permitting, inspections, and enforcement. Eleven small programs have also been eliminated.

MPCA's water and waste fees have remained steady or declined over the past eight years, but several efforts to reform fee structures have failed. The agency has conducted a public survey of attitudes about the agency, environmental priorities, and funding options, and it plans to convene a stakeholder process in mid-2002 to develop recommendations on providing more stable long-term funding for the agency. The chairs of the environment and environment funding committees in the state House of Representatives and Senate will serve on this stakeholder group.

Wisconsin

Wisconsin experienced a 10 percent budget cut in 1996 that resulted in significant staff reductions. DNR's per employee costs have increased significantly over the past few years, making it difficult to add additional staff even with budget increases.

Chapter 5.

Overall Findings

The previous chapter presented a state-by-state discussion of the five agencies' strengths and gaps, structuring the discussion around the assessment framework/matrix presented in Chapter 3.

This chapter presents overall findings, also structured according to the matrix. Many of the findings are illustrated with examples from one or more of the five states, but these examples are intended to be illustrative, not exhaustive. (Note also that the state examples were accurate at the time the state interviews were conducted. Interviews were held in the first quarter of 2001 for Indiana, Wisconsin, and Illinois, and in the first quarter of 2002 for Michigan and Minnesota.)

The more than 100 interviews conducted for this study strongly support the idea presented in Chapter 1 that strategic planning and integrated compliance practice are critical because:

- The scope and complexity of environmental issues confronting states requires them to develop and deploy clear strategies that target agencies' efforts on important environmental problems and achieve measurable environmental results.
- These environmental issues—frequently caused by many smaller non-point sources of water pollution and volatile organic or toxic air pollutants—require an integrated compliance strategy that relies on a variety of compliance tools and includes a mechanism for determining which tools should be applied to particular types of environmental problems.

5.1. Planning

States are implementing strategic planning processes.

Each of the five states has initiated a strategic planning process designed to identify priority environmental problems. The strategic plans in all of the states except Michigan—a state that chose not to participate in the NEPPS—are closely linked to their PPAs with EPA Region V.³³

Effective strategic plans should reflect and accommodate core regulatory functions

An effective strategic plan must provide for maintaining core regulatory programs: standard setting, permitting, inspections, and strategic enforcement. These core activities are essential for ensuring that environmental emissions from major facilities continue to decline and are important to the credibility of state regulatory efforts. Strategic plans should also provide for developing

³³ In Illinois, for example, the governor required all state agencies to develop strategic plans. IEPA used its PPA to meet the governor's mandate. Indiana developed a strategic plan in the mid-1990s. Rather than revising the strategic plan, Indiana is using its PPA to establish priorities for IDEM. Minnesota first adopted its strategic plan in 1990 and is now in the early stages of revising it. Wisconsin adopted its current strategic plan in 1999 and its Strategic Implementation Plan in July 2000. Both Minnesota and Wisconsin established specific environmental goals in their PPAs. Michigan has had a strong strategic planning effort in place for several years.

innovative ways to deal with diffuse non-point sources of pollution, new environmental problems, and more efficient solutions to existing problems and sources.

The MPCA's 1998 reorganization focused on enhancing its regional offices to improve customer service and on building the agency's capacity to work across media programs. These changes diffused responsibilities and expertise, which resulted in significant deterioration of the agency's core permitting, inspection, and enforcement functions. The agency has recently abandoned some aspects of the 1998 reorganization to refocus its resources on these core functions.

States should improve their compliance management planning

State agency strategic plans appropriately focus on “big picture” environmental goals. Some of the five states include compliance objectives among the methods they use to help achieve strategic goals. For example, as part of its strategic goal of “protecting public health and safety,” Wisconsin's Strategic Implementation Plan sets out an objective of “by 2006, increasing by 10 percent the compliance rate of facilities inspected for air emission, hazardous waste and point source water discharges as compared to 2000.” Such concrete compliance objectives can be very helpful in driving the state actions needed to meet a strategic goal.

As this study demonstrates, states have a variety of tools they can use to improve compliance, including regulatory and technical assistance, enforcement, and voluntary programs. These programs, however, often operate independently of one another, and the state agencies reviewed in this study have not yet developed compliance planning processes to ensure that the various methods of achieving compliance are integrated and deployed in a way that maximizes state compliance resources.

This said, some state agencies have launched efforts to improve coordination of some aspects of their compliance programs. For example, Minnesota's Enforcement Response Plan establishes common enforcement procedures for all of MPCA's programs. And IDEM's multimedia CET is beginning to coordinate compliance assistance and enforcement efforts. However, none of the five states has a fully developed, high-level plan for integrating its various compliance assistance programs with its enforcement programs and corporate leadership initiatives.

This “compliance management” approach to strategic planning is suggested by Malcolm Sparrow in his work on effective problem solving by regulatory agencies:

In a wide range of regulatory and enforcement professions—including policing, environmental protection, tax administration, customs, occupational safety and health—the traditional enforcement approach has come under considerable stress. Those professions face the realization that there are too many violators, too many violations, and never enough resources to get the job done. They have also discovered that lining up violators for prosecution was more successful in jamming up the justice system than it was in making streets safe, the environment clean, or in eliminating patterns of non-compliance with tax or trade regulations. Those professions have each recognized that the enforcement strategy waits until the damage has been done and then reacts, case-by-case, violation-by-violation, failure by failure...

[T]he goal of problem solving is to identify important problems early, and fix them. The strategy permits the complete range of available tools to be considered with respect to each problem, and demands the use of creativity and innovation in fashioning tailor made response to each identified problem. With respect to each problem nominated for attention, the objective is to design an intervention that fixes the problem, preferably for good, thus diminishing the reactive workload and enabling the agency to shift its attention to the next set

*of problems. In fashioning a solution for any particular problem, the enforcement tool (making cases) is always available, but is never assumed to be necessarily the most effective nor the most resource efficient approach. For some problems, the most effective intervention may well include a campaign of vigorous and well-publicized enforcement. But for others, the solution might be procedural or policy change, or an education program. Problem solving, recognizing the scarcity of the enforcement resource, uses enforcement surgically, incisively, and in the context of a coherent control strategy.*³⁴

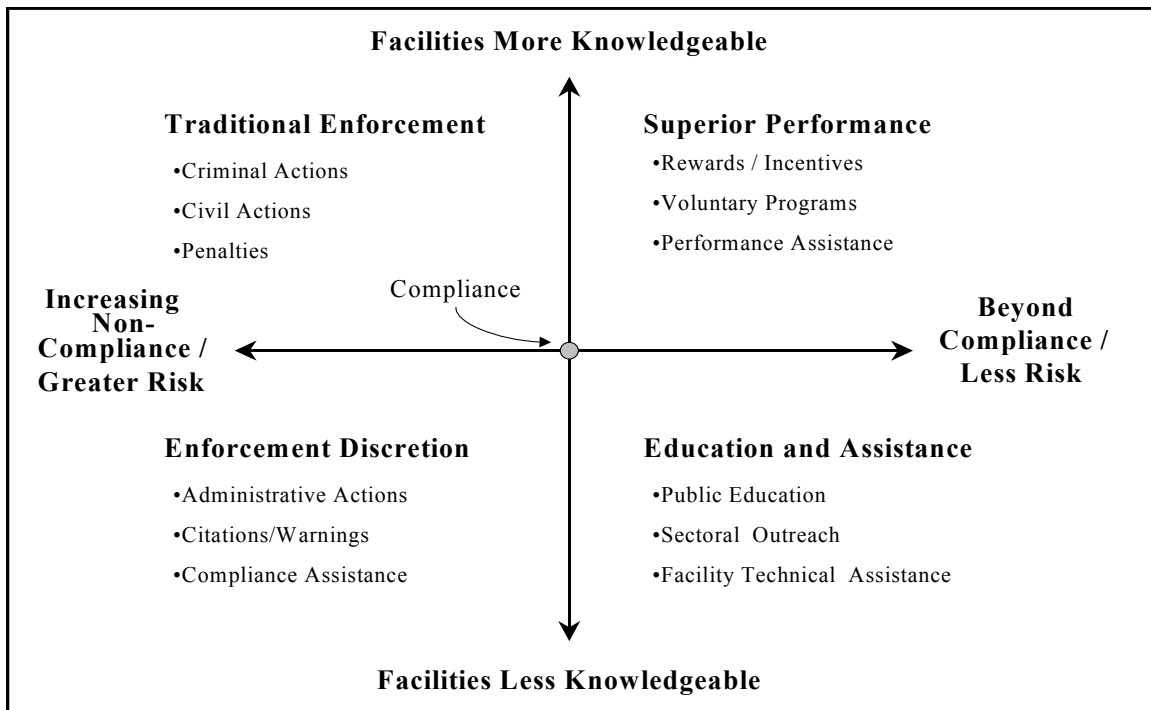
An effective compliance management plan relies on first identifying important environmental problems—the work of a strategic planning process—and then selecting or designing compliance tools to help fix the problem. Consequently, this process may be difficult for the external stakeholders—both regulated businesses and the public—to understand and to assess whether the approach is effective in increasing compliance or simply a way to de-emphasize enforcement. Simple enforcement numbers are no longer a sufficient measure of program success or failure. As a result, state agencies that adopt this integrated approach to compliance assurance should clearly set out the process they will use to prioritize environmental problems, select appropriate compliance tools, and evaluate the effectiveness of those tools so that the public and members of the agency’s staff can understand whether progress is being made in reducing pollution.

The Environmental Compliance Consortium, a coalition of 12 state environmental agencies, has developed a conceptual framework to help states in integrating their enforcement, compliance, and leadership programs through a compliance management system. The Consortium has adopted a “Response COMPASS” as an integrating tool. (See Figure 1). The vertical axis represents agency expectations for a facility, with higher expectations for larger, more knowledgeable facilities, and the horizontal axis represents the facility’s behavior and its environmental or public health consequences, rated from high to low risk.³⁵

³⁴ M. Sparrow, *A Problem-Solving Approach to Environmental Protection* (1996), cited in National Academy of Public Administration, *Environment.gov; Transforming Environmental Protection for the 21st Century*, Research Paper Number 11 (200).

³⁵ Suellen Keiner, Brenda Hagman and Bernard Penner. “Environmental Compliance Consortium’s Response COMPASS” in *ECOStates*. Summer 2001. pp 24–29.

**Figure 1: The Response COMPASS:
Compliance Options for Managing Performance and Surpassing Standards**



The role of external stakeholders in state strategic planning is limited

External stakeholders have not played a major role in the development of the five states' strategic plans or PPAs, except in Illinois where IEPA meets with environmental organizations, businesses, and local governments each year as part of the process for developing its PPA.

Because the resources of environmental agencies are increasingly being directed to strategic objectives, it is critical that external stakeholders have the opportunity to participate in the development of these objectives. The agency needs to inform the public about its process for setting priorities, make it clear how the public can affect this process, and provide opportunities for external stakeholders to participate, including the development of strategic plans, PPAs, or other methods. Environmental organizations, businesses, local governments and other stakeholders should more closely track the development of strategic plans and PPAs, and participate in their development.

Strategic plans are not widely translated into individual workplans

A few states are beginning to translate their strategic plans into individual employee workplans. Minnesota is beginning to integrate its strategic plans into individual employee workplans, while in Wisconsin, about 35 percent of each employee's time is tied to the agency's strategic goals. Illinois' media-specific work plans are not closely tied to the IEPA's strategic plan. Michigan is perhaps the farthest along in linking employee responsibilities to its strategic plan. The fact that strategic plans are beginning to be incorporated into individual workplans indicates the growing

importance of these plans and the growing effect they may have on producing changes in work assignments and, eventually, environmental outcomes.

However, state agencies are likely to encounter obstacles in translating their environmental outcome measures into employee workloads and evaluation factors because it is difficult to determine how individual actions produce changes in environmental outcomes.

5.2. Data, measurement, and monitoring

State ambient monitoring capacity is limited

The ability to establish environmental outcome goals and to track progress in meeting goals is limited in some states by inadequate ambient monitoring capacity, especially water quality monitoring.

Goal-based management information systems are emerging

Some states are beginning to implement management information systems that allow senior managers to track progress in meeting goals established through the strategic planning process. Such systems can serve as important feedback mechanisms for adaptive management and for reassessing the effectiveness of various compliance tools.

Minnesota uses a quarterly management report, and Michigan has created the Director's Dashboard to provide senior management with regular information about progress in implementing strategic goals.

Fragmented data systems hinder strategic approaches

The ability of state agencies to translate their environmental data into information that supports their strategic planning and implementation processes continues to be limited by incompatible data systems and insufficient resources dedicated to data integration. The five agencies in this study generally recognize this problem and have long-term plans for addressing it. However, it remains a critical problem for the short and medium term.³⁶ The agencies need stakeholder support for obtaining additional resources to improve their data systems.

5.3. Compliance tools and processes

Some states lack critical enforcement tools

Some states do not have the authority to use key enforcement tools, such as APOs, which are necessary to address large numbers of smaller violations.

³⁶ One promising development in this area is IEPA's ACES data system, which combines data from its air, water, and land programs. However, it is not clear whether the data will provide all the information needed to improve enforcement targeting for the most serious environmental problems, repeat violators, or industrial sectors with poor compliance records. For a more detailed discussion of data problems, see National Academy of Public Administration, *Evaluating Environmental Progress: How EPA and the States Can Improve the Quality of Enforcement and Compliance Information* (June 2001).

APOs give environmental agencies an efficient process to assess and collect penalties for smaller violations. Over 30 states have authority to assess penalties administratively. In Minnesota, APOs have been the most frequently used enforcement tool for almost 10 years. By contrast, Wisconsin's lack of authority to issue APOs has left the DNR with few options for assessing penalties and has limited its enforcement capacity.

Complex procedures hinder enforcement in some states

Some states' enforcement tools are encumbered with complex procedures or advance-notice requirements that reduce the effectiveness of their compliance efforts.

For example, Illinois has little ability to assess penalties administratively, and its section 31 enforcement process is time-consuming and cumbersome unless a facility agrees to correct its violations. In Minnesota, different administrative penalty requirements apply to animal feedlots, and MPCA must meet with the feedlot operator before issuing an APO. MPCA is also required to forgive 75 percent of the penalty even for serious and repeated violations if the penalty is spent on facility upgrades.

Strategic enforcement targeting tools are emerging

Some states are developing formal targeting tools to direct their enforcement resources to priority problems or respond to staffing needs that limit their enforcement capacity.

For example, Indiana is implementing a cross-media compliance planning mechanism via its high-level CET. Minnesota is creating an enforcement queue that focuses limited enforcement staff on first pursuing enforcement actions involving major facilities to meet their enforcement commitments to EPA. Wisconsin's drinking water program is using criteria to target its limited enforcement resources on higher-priority cases.

States' compliance rate calculations do not account for important factors

The five states do calculate compliance rates for many of their programs. However, most of these compliance rates are simply a measure of the number of regulated facilities inspected compared with the number of violations (or significant violations) found at these facilities. This approach to calculating compliance rates does not take into account important considerations, such as whether the full universe of regulated facilities has been identified and permitted, whether all of the facilities are inspected in a particular year, and how thorough the inspections are.

Compliance assistance receives significant emphasis

Each of the five states places significant emphasis on compliance assistance programs. But the design of those programs differs greatly from state to state because of statutory requirements, budget considerations, and management views about the role of compliance assistance.

For example, Illinois trains its inspectors to decide during a site visit about whether the most appropriate intervention is pollution prevention advice, compliance assistance, or a traditional enforcement-oriented inspection. Indiana provides confidential compliance assistance through an office that is physically and legally separated from IDEM. Michigan does not have a bright line distinction between enforcement and assistance activity in the inspection process and makes a final distinction between the two only if a case escalates to an enforcement action. Minnesota has

de-emphasized compliance assistance by its media program staff as a result of staff reductions, leaving the Technical Assistance Program as the primary source of advice on pollution prevention. Wisconsin emphasizes compliance assistance through its Cooperative Environmental Assistance Program and has targeted several specific industry sectors for pollution prevention and compliance advice.

Compliance assistance metrics are poor

All five states lack meaningful measures for evaluating the effectiveness of their compliance assistance programs in terms of pollution reduced or other environmental outcomes. The most common measure—number of contacts with the regulated community—provides little information about the efficacy of compliance assistance initiative efforts. This is not to argue that compliance assistance is not a vital activity—on the basis of first principles, it clearly is. However, without better metrics, state agencies lack key information needed to steer their scarce resources to produce the most effective compliance results.³⁷

Credibility for experimentation depends on maintaining core programs

It is important for states to maintain core environmental programs such as issuing timely permits, inspecting major facilities, and undertaking traditional enforcement actions. Otherwise, it is difficult for agencies to maintain public confidence, credibility with EPA, and the internal staff support necessary to experiment with more innovative ways of achieving environmental results.

Frustration with state leadership and innovation programs is common

Most of the five states' major leadership and innovation initiatives have been slow, costly, and time-consuming. As of yet, none of these programs has produced the significant systematic changes needed to address the wide range of facilities and environmental problems that states now face. Much of the time and cost of these programs has occurred in negotiations with EPA. In most cases, the states would have allowed greater flexibility for companies involved in state initiatives than was ultimately approved by EPA.

Only three facilities have been part of Minnesota's leadership programs, two under EPA's Project XL and one under the EPA/ECOS agreement. Three facilities are participating in Wisconsin's Cooperative Environmental Management Pilot Project, and two are in Illinois' Environmental Management Systems Agreements program. By contrast, Michigan's Clean Corporate Citizen leadership program has more than 40 participants and has proposed eight projects under the EPA/ECOS innovations agreement.

Some state agencies are disengaging from leadership and innovation programs

Because of these problems, some of the states have recently de-emphasized leadership and innovation programs.

³⁷ *Evaluating Environmental Progress*, 28.

Minnesota, Illinois, and Indiana have placed less focus on their leadership initiatives because of the implementation problems they experienced and the limited results that have been achieved to date. Minnesota hopes to redirect its innovation efforts toward (1) streamlining permitting to help address serious permit backlogs and (2) dealing with smaller facilities and environmental problems not as closely regulated by EPA to avoid the time delays involved in interacting with the agency on innovation proposals. Wisconsin remains very focused on the Green Tier program, which it hopes will address important environmental issues at large facilities (similar to the XL model) and at smaller, more diffuse sources. However, the Green Tier program has not yet been approved by the state legislature, so it is difficult to know whether its design program will be able to overcome some of the problems experienced by other state innovation programs. Michigan continues to place a priority on voluntary approaches and innovation.

Data on Leadership program outcomes and resources is poor

All five states lack useful data on the environmental outcomes produced by their voluntary leadership programs. At least in part, this is because there have been so few participants in most programs and because many of the leadership or innovation projects are only now beginning to be fully implemented. Further, data on state staffing needs and costs for state leadership programs are not readily available in any of the states.

Leadership programs continue to be very resource intensive

It is reasonable to expect that early innovation might take significant time to complete as new issues are addressed. However, these state initiatives continue to absorb large amounts of agency time and effort. For projects involving EPA approval, clearer guidelines (or perhaps federal authorizing legislation) will be necessary if the agency continues to be involved in the projects. Also, states need to create a better evaluation process that addresses some of the concerns of the public interest community about the transition from experimental learning to precedent for future regulatory approaches. The experiences of these five states also indicate that innovation projects will likely be easier to implement if they focus more on programs that are based on state, rather than federal, regulatory requirements.

Some innovation programs for state priorities show promise

Some Midwestern states have developed promising innovations for state programs designed to address important state environmental priorities or to encourage smaller businesses to examine their facilities without the need for state inspections.

Wisconsin's non-point runoff program is an interesting combination of (1) performance-based regulation that limits runoff based on "tolerable" or "T" rates for erosion, (2) best management practices that reduce nonagricultural runoff by 80 percent, and (3) an incentive-based cost-sharing program. Michigan's experiment with a trading program to manage pollutant loadings in a specific watershed based on "total maximum daily loading" requirements is likely to provide important data about the feasibility of water pollution trading. Illinois's Emission Reduction Market System, which establishes a market-based approach for reducing volatile organic emissions in the Chicago area, is a key tool for addressing ozone nonattainment in that region. Minnesota's use of industry specific self-audits under the state's audit law has led hundreds of small facilities to assess their compliance with state law and report the results to MPCA.

5.4. Informing and interacting with the public

State of the environment reports vary widely in content

Each of the five state agencies publishes a state of the environment report that helps the public understand environmental quality, pollutant loads, and agency activities. However, these reports differ significantly in level of detail and the degree to which they evaluate the agencies' progress in meeting their strategic goals.

States involve the public too late in their decision-making processes

Although some of the five states are beginning to encourage permit applicants to work with affected communities early in the permitting process,³⁸ all continue to rely primarily on traditional mechanisms of public involvement in their strategic planning and other compliance processes. Formal public meetings, public hearings, or comment periods are not very effective because they occur near the end of permitting and enforcement processes, rather than actively involving the public in agency deliberations on strategic goals and priority-setting.

Some states have experimented with innovative ways of involving the public

Several states have begun to utilize innovative ways of working with the public.

For example, Wisconsin used a yearlong stakeholder process to develop its Green Tier program and sought funding in the Green Tier legislative proposal so that environmental advocacy organizations could participate in project development and evaluation. Senior staff from the Michigan DEQ hold monthly meetings in different areas of the state to allow the public an opportunity to interact with agency leaders. IEPA conducts listening sessions to obtain public views as part of its strategic planning process. MPCA has used electronic multivoting technology to gather immediate public feedback on its proposed strategic plan.

5.5. Financial and human resources

Most state resources support traditional regulatory functions

The five states have continued to devote most of their agency funding and staff to permitting, inspections, and enforcement.

For example, in Michigan, about 100 staff, or only 6 percent of the total staff, are involved with DEQ's Environmental Assistance Division. In Minnesota, over 23 percent of staff time is dedicated to compliance determinations, permitting, monitoring, evaluation, and enforcement; while 14.6 percent of staff time is spent on compliance assistance.

³⁸ Some states like Texas have recently enacted legislation that requires public notice for permits at the time the permit is determined to be complete rather than when the draft permit is completed and ready for final approval. This "early notice" approach allows the public to interact with the permit writer and the project proposer before final decisions are made on project design. This early involvement can facilitate changes to the project that accommodate community concerns and can improve project design, thus resulting in fewer compliance problems later.

State ability to shift resources is limited

The ability of states to shift both state and federal funding to high-priority problems is often constrained by state or federal statutes or by federal policies.

Reorganizations significantly decrease agency performance

Efforts to reorganize state environmental agencies, especially major reorganizations away from traditional environmental agency structures, seriously impair state core programs for permitting, inspection, and enforcement for a significant period of time.

While a clearer multimedia focus may be useful for state agencies in dealing with environmental problems, experience with Minnesota's dramatic cross-media reorganization indicates that states should proceed with caution in adopting a multimedia structure. Key issues associated with a major reorganization include maintaining expertise in each media program and media-specific contacts with EPA; ensuring that specific staff remain accountable for core program elements such as permitting, inspection, and enforcement; and understanding the loss of short-term (within the first year) and mid-term (one to three years) productivity that can occur as a result of disrupting the staff's informal culture of knowledge, friendships, and career paths.

Rising per-employee costs strain state funding

In Minnesota and Wisconsin, agency costs per employee have risen significantly, in part because agencies have been hiring fewer new employees and those who stay receive higher salaries as their longevity increases. These higher costs make it harder for states to implement all of their responsibilities when faced with stagnant or shrinking funding.

Budget reductions have had adverse effects on compliance activities

Budget reductions have had clear, adverse effects on inspection and enforcement programs.

For example, the 10 percent budget reductions in Wisconsin in 1996 had direct, adverse effects on the number of inspections and enforcement actions the DNR was able to conduct. Similarly, budget reductions in Minnesota in FY 2002–2003 are limiting MPCA's compliance programs.

Chapter 6.

Conclusions and Observations

6.1. The imperative and challenge of integrated compliance

In chapter 1, we depicted state environmental agencies as subject to pressure from a number of stresses and forces. These pressures include

- the need to address unregulated sources and new sectors, resource constraints, and increasing responsibilities, such as growth of the regulated universe;
- legislative and executive mandates for compliance assistance and performance-based management; and
- the need to use the best current knowledge about the sources of noncompliance and effective management models.

In our view, these stresses effectively mandate that states adopt integrated compliance approaches. Such approaches are centered on targeted, prioritized problem solving, and they employ a full range of compliance tools—enforcement, assistance, and incentives applied in a considered and systematic way.

The more than 100 interviews and the documentary research conducted for this study provide strong confirmation that our portrayal of state agencies is largely correct and that there is a strong imperative for states to adopt integrated compliance.

In the field of environmental regulation, integrated compliance programs are still in their infancy. But state environmental agencies can be guided by and evaluated using basic principles that embody the structural and management prerequisites for an effective integrated compliance program. These principles are

- the need for a strong strategic planning process that sets and implements priorities, both generally and for the compliance program specifically;
- the need to maintain reliable data and monitoring capabilities to support resource allocation, planning, and adaptive management;
- a full range of compliance tools and processes not hindered by excessively cumbersome procedures;
- a strong commitment to informing and interacting with the public; and
- sufficient financial and human resources.

After having evaluated the compliance programs and management capacities of five Midwestern environmental agencies on the basis of these principles, it is also clear to us that implementing integrated compliance presents considerable challenges, at least in these states. The state practices analyzed in this study indicate that systemic areas of weakness do exist, but we also found that some states have begun to make progress in acquiring key capabilities for certain elements of

their compliance programs. Further, the state agencies we examined all have their own visions of progress and needs that are substantially compatible with the principles for integrated compliance outlined here.

This chapter discusses the five states' areas of weakness and progress in broad terms. It also makes clear that the demands of integrated compliance and state agency responses to these demands have implications not just for the agencies themselves, but also for environmental organizations in their watchdog capacity and for state legislatures, which must ultimately be willing to authorize agencies' increased investments in better information systems, wide monitoring networks, and improved institutional capacity.

6.2. Current state practices

Planning

Because of the continuing evolution of environmental issues and the increasing number of regulated facilities, all five of the states in this study had increased their reliance on strategic planning to set priorities, target resources, and direct day-to-day staff work. In four of the five states, PPAs negotiated with EPA Region V play a central role in the strategic planning process. As a result, members of the public and environmental organizations that want to influence agency priorities and the way agency resources are targeted need to participate actively in the planning process and in PPA development. However, our research indicates that public and environmental group involvement in the strategic process and in PPAs is, unfortunately, quite limited in most of the five states.

Data, performance measurement, and monitoring

Reliable and accurate information is an important ingredient for effective planning, especially when the plans set goals that rely on environmental outcomes as one of the key measures of success. While all five states are focusing more attention on ambient monitoring and performance measures, most of their ambient monitoring networks are still not adequate to provide needed baseline data or to measure progress. Further, data systems in several of the states are not integrated across the various media programs, making information difficult to use and difficult for the public to access or understand. To support sound strategic planning, priority-setting, and measurement of progress in meeting environmental goals, all five states need to continue building data systems and their ambient monitoring networks. They also need to improve their information systems so they can integrate data across media programs and can provide the public with more understandable data on both environmental progress and facility compliance.

Compliance tools

The complex nature of environmental problems and the large number of regulated facilities also force states to rely on a broad range of compliance tools, including technical and compliance assistance, enforcement, and leadership programs. In deciding when to deploy these tools, states need an integrated strategy that first identifies key environmental problems and then enables managers to select the tool or tools best suited to solving the problems. As noted earlier, these five states are only beginning to develop such integrated compliance programs. Members of the public and environmental organizations should track state compliance programs to ensure that

states are focused on resolving key environmental problems and have a strategy for integrating the use of their various compliance tools. It is also important to monitor whether states are maintaining an effective balance between the staff and financial resources devoted to each of the major categories of compliance tools.

Some of the five states have quite comprehensive sets of compliance tools, while others lack critical tools or are burdened by complex procedures that limit the effectiveness of some key tools. The authority to assess administrative penalties, for example, is an important enforcement tool that enables states to efficiently address large numbers of violations. Yet only Minnesota has used administrative penalties as a principal compliance tool. In some cases, complex procedures, such as advance notice to violators and restrictions on penalties for certain types of facilities, restrict the use of key tools. The public and environmental organizations should examine state compliance authorities to ensure that agencies have a full range of tools (paying particular attention to the availability of administrative penalty authority) and that compliance actions are not unduly restricted by cumbersome procedural requirements.

Compliance and technical assistance programs play an important role in informing the regulated community about environmental requirements and how to meet them. Each of the five states has committed significant resources to compliance assistance, although the approaches vary widely. Indiana uses a segregated, confidential compliance assistance program, while Illinois has an integrated approach for inspectors to provide pollution prevention information, offer compliance assistance advice, or undertake an enforcement inspection, depending on the circumstances. Unfortunately, the effectiveness of compliance assistance is most often simply measured by the number of contracts with the regulated community. Instead, states need to develop more robust ways of determining the value of various approaches to compliance assistance, especially given the large amounts of resources dedicated to these programs in all five states.

As states focus more on strategic priorities, they may direct less attention to core program functions such as permitting, inspections, and enforcement. These programs, however, provide an important foundation for leadership programs. They are also critical for deterring violations and maintaining credibility in the eyes of the public. Consequently, state strategic plans should ensure that core programs will be maintained and not shortchanged as states experiment with new ways of addressing environmental problems.

Each of the five states has experimented with voluntary leadership programs. Three have scaled back these programs because of difficulties experienced in implementing them. These difficulties have included lengthy negotiations with EPA that have resulted in only limited innovations, the extensive staff time needed to manage the programs, and limited business participation. Nevertheless, Michigan and Wisconsin remain committed to their leadership programs. Wisconsin has worked closely with stakeholders in designing its proposed Green Tier leadership program and has committed to obtaining funding for public interest organizations to participate in its implementation. At the time of publication, however, the five states have not collected much data to measure the effectiveness of their leadership programs.

Public involvement

Each of the five states publishes a state of the environment report, although the contents of the reports vary widely. Some states provide only rather general information about environmental conditions, while others include significant data on ambient conditions. Just as the Global Reporting Initiative is doing for corporate environmental reports, states should consider developing a common format for their environmental reports that includes ambient monitoring

data; trends in key air, water, and waste indicators; progress in meeting strategic goals; and other information that can help the public evaluate the effectiveness of states' environmental programs.

Some of the states have experimented with innovative ways to involve the public. These new methods include listening sessions as part of the strategic planning process, electronic multivoting to obtain public input, stakeholder groups for Project XL innovation proposals, and monthly public meetings with senior agency staff. In developing its Green Tier leadership program, Wisconsin worked closely with a broad group of stakeholders, including environmental organizations. More frequently, public involvement in states' core regulatory programs is still based on formal public notice or draft permits, with the opportunity for the public to comment or to request a contested hearing. States should consider more effective approaches that provide the public with earlier notice about permit applications and other key regulatory actions, so the public can become involved at a stage when problems can be identified, changes in proposals can be more easily made, and disputes can be minimized.

Financial and human resources

Most of the five states have experienced budget reductions in the past few years. Further, even when state budgets have increased, rising overhead costs and staff salaries have limited the ability of some agencies to expand their staff and meet new needs or to address new environmental problems. Further, major agency reorganizations can reduce staff productivity. In Minnesota, a major reorganization and budget reductions appear to be directly correlated with reduced permitting, inspections, and enforcement. A similar downturn in enforcement activity occurred in Wisconsin following a 10 percent budget reduction in 1996. These circumstances indicate that members of the public and environmental organizations interested in preserving strong state regulatory programs need to scrutinize closely the adequacy of agency budgets and the value of reorganization efforts that may divert the attention of agency staff for extended periods of time.

Preface to the State Appendices

These state appendices reflect information gathered from state documents and interviews for each of the five Midwestern states in this study. Information is current as of date indicated immediately below the title of each appendix.

The appendices are organized according to the major headings/sub-headings from the evaluation matrix presented in Chapter 3. For explanation of the content of each section, please refer to Chapters 2 and 3. The only addition to the appendices beyond the matrix is a first section providing an overview of the agency's mission and statutory authority, its internal organization, any supervisory or advisory boards, and any recent institutional changes.

While we have made significant efforts to provide consistent treatment of all five states, the level of detail within each major heading major and the content of the subheadings varies from state to state. These variations reflect both differences in areas of emphasis and activity in each state agency, as well as differences in the data that the agencies compiled and made available to the research team. Such data variations are particularly apparent for the topics of financial and human resources and for environmental and compliance performance.

Because each appendix represents the synthesis of a large number of separate interviews and documents and because these interviews were conducted with the understanding that attribution would require the explicit permission of the interviewee, it was not practical to provide exhaustive references in the appendices. Where documents or individuals are directly quoted, the sources are attributed; and citations to statutes and regulations are provided as appropriate.

Appendix A: Illinois Environmental Protection Agency

Information in this case study is current as of February 2001.

A.1 Agency Overview

Mission

“The mission of the IEPA is to protect, restore, and enhance the quality of air, land, and water resources to benefit current and future generations.”³⁹ This mission statement was set forth in the 2002 Performance Partnership Agreement. Prior to the current PPA, IEPA’s mission was “to safeguard environmental quality, consistent with the social and economic needs of the State, so as to protect health, welfare, property and the quality of life.”⁴⁰

To support the latter mission, IEPA formulated the following program goals:

- Provide leadership to create a plan for clean air that is responsive to relevant needs in Illinois and complies with key aspects of the Clean Air Act Amendments.
- Address solid and hazardous waste management concerns and participate in the national deliberations on reauthorization of the hazardous waste program.
- Use creative means to address the needs for clean and safe water and participate in the national deliberations on reauthorization of the water programs.
- Enhance capability to fund environmental cleanup and provide better service for private party actions.
- Promote pollution prevention and market-based approaches for continued environmental progress.
- Develop an environmental planning capability that emphasizes risk-based analysis, accurate science and sound data, and open communication and informed participation.⁴¹

Internal Organization

IEPA contains three Bureaus: the Bureau of Air, the Bureau of Water, and the Bureau of Land, as well as the Offices of Community Relations, Small Business, and Pollution Prevention. Each bureau has two divisions; one division is specifically devoted to pollution control, and the other division is in charge of maintenance and/or management. For instance, the Bureau of Air houses the Division of Air Pollution Control and the Division of Vehicle Inspection and Maintenance. The Bureau of Water has added a third division for compliance assurance and watershed

³⁹ *Performance Partnership Agreement (2002)*.

⁴⁰ Illinois Environmental Protection Agency. “Purpose of the Illinois EPA”. Available at www.epa.state.il.us/about/purpose.html.

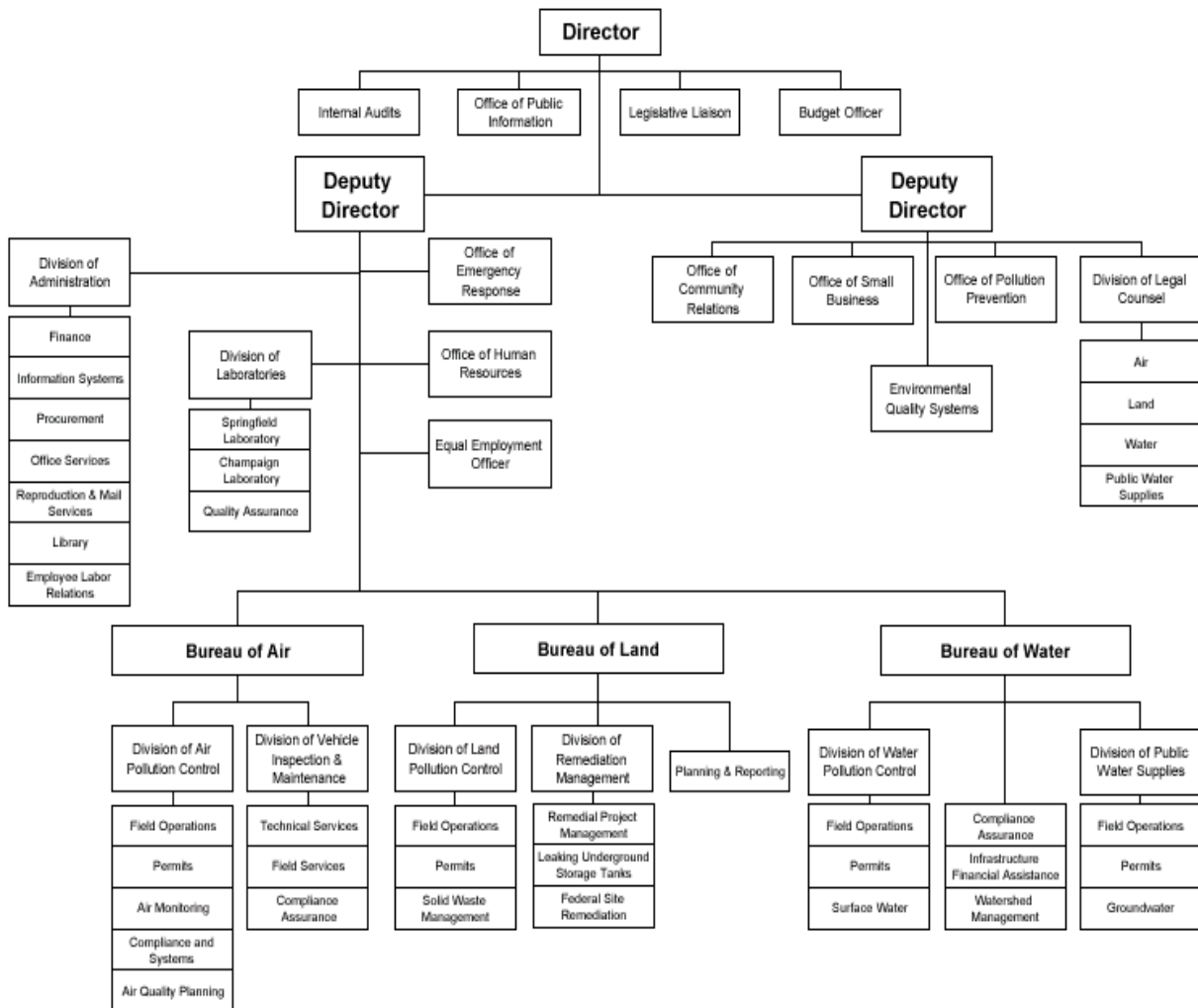
⁴¹ *Ibid.*

management. All three bureaus also have staff specifically for compliance assurance. In addition, IEPA has nine field offices and three laboratories.

Illinois Pollution Control Board

IEPA acts in conjunction with the Illinois Pollution Control Board, which is responsible for the adoption of environmental rules and regulations, adjudication of enforcement actions, processing appeals of permit denials, and hearing variance petitions. Chapter 415 of the Illinois Compiled Statutes (ILCS) and Title 35 of the Illinois Administrative Code (Ill. Adm. Code) set out the environmental regulations pertaining to these two bodies. In addition, the Ill. Adm. Code contains separate subtitles for air, water, and waste, each of which is divided into two chapters, one pertaining to the Pollution Control Board, the other to IEPA.

IEPA Organizational Chart



The Illinois Pollution Control Board (Board) is a quasi-legislative and quasi-judicial body that adopts environmental regulations and hears contested cases, effectively acting as an environmental court of law. It determines, defines, and implements environmental control standards in accordance with the Illinois Environmental Protection Act. The Board was created

pursuant to 415 ILCS 5/5. The Board consists of seven technically qualified members who are appointed to three-year terms by the Governor and confirmed by the Illinois Senate. Members of the Board include experts in law, engineering, biology, geology, and environmental sciences.

The Board conducts hearings on complaints brought by the state or citizens charging violations of the Illinois Environmental Protection Act or IEPA regulations. The Board also hears contested cases involving decisions of IEPA, the Office of the State Fire Marshal (OSFM), and local government sitting decisions on pollution control facilities, such as landfills, incinerators and waste transfer stations. 35 Ill. Adm. Code 2175.105

The Board generally conducts business at bi-monthly meetings, which are usually open to the public. 35 Ill. Adm. Code 2175.125. Formal Board action is conducted at publicly noticed meetings in accordance with Illinois' "Open Meetings Act." A vote of four of the seven Board Members is required for all final Board determinations. The Board's quasi-judicial decisions must be made in writing and supported by findings of fact and conclusions of law.

Duties and responsibilities of the Board are divided into two specific categories: rulemakings and adjudicatory cases. 35 Ill. Adm. Code 2175.500 to .535 and .600. According to the Board's web site, regulations adopted by the Board concern air, land, water, public water supply, mining, and livestock-related pollution; hazardous and non-hazardous waste; noise; and atomic radiation, and the Board's regulations are codified under 35 Ill. Adm. Code 200-1400. Rules are adopted through four types of rulemaking proceedings; general rulemaking, identical-in-substance rulemaking, federally required rules, and Clean Air Act fast-track rules. Additionally, the Board has the general statutory authority to hold "inquiry hearings" to gather information so that the Board can determine whether future action might be necessary to protect the environment from pollution, including air, land, water, noise, and odor pollution.

According to the Board's web site, the Board hears a variety of federal and state adjudicatory cases. Board cases generally fall into one of the following six categories: enforcement action, permit appeal, variance, adjusted standard ruling, administrative citation, or landfill siting appeal. The Attorney General's office represents IEPA before the Board and the courts for enforcement proceedings. IEPA's staff attorneys handle all other types of cases before the Board.⁴² IEPA, the Attorney General, or State's Attorneys Offices can file complaints in order to enforce violations of the Illinois Environmental Protection Act or Board rules.

Additionally, a citizen may file a complaint alleging a violation of the Act or its regulations, because citizens must first go through the administrative process before filing a complaint or injuncton in Circuit Court.⁴³ If the Board determines that the citizen's complaint is neither frivolous nor duplicitous, it is treated like a state enforcement action. All information submitted to or produced by the Board is open to reasonable public inspection. 35 Ill. Adm. Code 2175.300.

⁴Interview with Joseph Svoboda, 7/2/01.

⁵ Ibid.

A.2 Planning

Goals and Goal Setting

IEPA establishes its goals in its Performance Partnership Agreement with U.S. EPA Region V as part of the National Environmental Performance Partnership System (NEPPS). In May 1995, the Environmental Council of States and EPA signed a “Joint Commitment to Reform Oversight and Create a National Environmental Performance Partnership System.” IEPA was one of six pilot states to operate under NEPPS in FY96. Since then IEPA has had seven PPAs with Region V. Under NEPPS, state and federal program managers are directed to focus more on "improving environmental results." To achieve this focus, NEPPS calls for setting environmental goals and using environmental indicators to keep better track of the state’s progress. Joint priorities, goals, strategies, and measures negotiated between Region V and IEPA, as well as the goals and objectives for each IEPA media program, are outlined in the Performance Partnership Agreement (PPA). Under the FY2002 PPA, IEPA and Region V agree to:

- Participate in planning and information sharing, and in the coordination of activities regarding enforcement and compliance assistance.
- Hold an annual planning meeting to discuss enforcement and compliance measures.
- Share information regularly about pending and potential enforcement cases in order to avoid surprises, ensure consistency, minimize duplication, and ensure timely coordination of activities.
- Identify cases where inconsistency with national enforcement response policies, state environmental compliance strategies, or duplication of resources are potential problems, or for which coordination between U.S. EPA and IEPA is essential.

For both U.S. EPA and IEPA, enforcement and compliance assistance is conducted through individual media programs. However, both agencies conduct multi-media enforcement and compliance activities that require coordination.⁴⁴

In the PPA, IEPA’s Bureaus of Air, Land, and Water establish general environmental goals and present their respective environmental objectives, program objectives, environmental indicators, and program outcomes/measures. Two other goals are also established for Multi-media Programs and Innovative Protection. Each IEPA media program also sets forth performance strategies, including ways it will conduct compliance and enforcement measures in order to meet that specific goal. The following is an example of one of the goals outlined in the PPA:

- **Goal: Illinois should be free of air pollutants at levels that cause significant risk of cancer or respiratory or other health problems. The air should be clearer (i.e., less smog), and the impact of airborne pollutants on the quality of water and on plant life should be reduced.**

Environmental Objective: *General Air Quality*- Maintenance of 90 percent “good” or “moderate” air quality conditions in the areas outside of the one-hour ozone non-attainment areas for Lake Michigan and Metro-East.

Environmental Objective: *Ozone*- Attainment of the one-hour ozone standard by 2007.

⁴⁴Performance Partnership Agreement (2001), P. 11. *Illinois Environmental Protection Agency On-line*. Available: <http://www.epa.state.il.us/ppa/ppa-fy2001.pdf>.

Environmental Indicator 1: Air Quality Index levels outside the one-hour ozone non-attainment areas.

Environmental Indicator 4: Trends in the relationship between the number of days in exceedance of the one-hour ozone standard in the non-attainment areas and the number of days conducive to the formation of ozone.

Program Objective: Reduction in emissions of hazardous air pollutants.

Program Outcome/Measure: Trends in hazardous air pollutants as reported through the National Toxics Inventory.⁴⁵

Under the PPA, IEPA is required to prepare an Annual Environmental Conditions Report. The Report presents trend analyses and data in order to show whether IEPA is making progress towards accomplishing each objective. These trends actually gauge program success. (See section A.5 below).

Strategic Implementation

IEPA's strategic planning has developed through a progression of strategic thinking regarding environmental protection.⁴⁶ The Performance Partnership Agreement is now used as IEPA's strategic plan. In April 1992, IEPA published a "Four Year Strategy for Environmental Progress (92-95)." The strategy had six goals to support the agency's mission:

1. Provide leadership to chart a new course for clean air that is responsive to relevant needs in Illinois.
2. Address outstanding solid and hazardous waste management concerns and participate in the national deliberations on reauthorization of the hazardous waste program.
3. Utilize creative means to address the priority needs for clean safe water.
4. Enhance capability to fund environmental cleanup and provide better service for private party actions.
5. Promote pollution prevention and market-based approaches for continued environmental progress.
6. Develop an environmental planning capability that emphasizes risk-based analysis, good science and sound data, and open communication and informed participation.⁴⁷

On September 18, 2000, senior leadership from IEPA and Region V held a planning session to focus on regional and joint priorities and flexibility pilots. IEPA and 19 other Illinois agencies developed a new strategic plan. Seven strategic issues were identified:

1. Clean Air
2. Clean Water

⁷ Performance Partnership Agreement (2002).

⁸ "Strategic Planning for Environmental Protection in Illinois". *Illinois Environmental Protection Line-line*. Available: <http://www.epa.state.il.us/strategic-planning/strategic-planning.html>.

⁹ "Strategic Planning for Environmental Protection in Illinois".

3. Safe Water
4. Safe Waste Management
5. Land Restoration
6. Innovative Protection
7. Toxic Chemical Safety⁴⁸

When senior leadership from IEPA and Region V met again on October 18, 2001, to develop a new strategic plan, the same strategic issues were identified.

General Planning Process and Strategy

IEPA has created and implemented several forums for enlisting the contributions of the public in its strategic planning process, as required by Governor George Ryan. “Listening Sessions” are one of the mechanisms through which IEPA interacts with the public. Most recently, five listening sessions were held in March and April 2000. The goal of the sessions was to obtain public comments and concerns, as well as recommendations from those who have a stake in environmental programs, policies, or allocation of resources. Summaries of comments from each of the sessions were posted on IEPA’s web site.

IEPA has also set up an Electronic Bulletin Board in order to facilitate dialogue between the agency and the public and to give the public an opportunity to respond and comment on the Strategic Planning Process. Comments from citizens were posted on the web site in April 2000. One set of comments came from an economist, and several suggestions were made by Citizens for a Better Environment, an upper Midwestern environmental advocacy group. See <http://www.state.il.us/strategic-planning/input.html>.

A.3 Data, Performance Measurement, and Monitoring Networks

Monitoring

Air Sampling Network. The Bureau of Air’s Division of Air Pollution Control operates a statewide air monitoring network that includes over 200 monitors. The Air Monitoring Section maintains the network to monitor air quality year-round; that section also summarizes air data for the *Annual Air Quality Report*.

The Illinois air monitoring network is owned and operated by IEPA and cooperating local agencies. The network measures ambient air quality levels in various Illinois air quality control regions. The network contains instruments that work continuously and instruments that operate intermittently based on an established schedule. The network is deployed according to guidelines in the State Implementation Plan. An updated air monitoring plan is submitted for review to Region V each year. In accordance with federal air quality monitoring requirements in Title 40 of the Code of Federal Regulations, Part 58, four types of monitoring stations are used to collect

¹⁰ Performance Partnership Agreement (2001). *Illinois Environmental Protection Agency On-line*. Available: <http://www.epa.state.il.us/ppa/ppa-fy2001.pdf>

ambient air data. The groups of monitoring stations are distinguished from one another by the general monitoring objectives that each is designed to meet. The four monitoring groups are:

- National Air Monitoring Station (NAMS) Network: a subset of stations from the SLAMS network, concentrating on urban and multisource areas, that measures concentrations where poor air quality is combined with high population exposure and provides data to be used to determine national trends.
- Photochemical Assessment Monitoring Station (PAMS) Network: required in serious, severe, and extreme ozone non-attainment areas (for Illinois only in the Chicago Metropolitan area) to obtain detailed data for ozone, precursors, and meteorology.
- Special Purpose Monitoring Station (SPMS) Network: any monitoring site not designated SLAMS or NAMS.
- State/Local Air Monitoring Station (SLAMS) Network: designed to determine the highest concentrations expected to occur in the area and determines the air quality impact for significant sources or source impact.⁴⁹

Information obtained from the monitoring network is published in the *Illinois Annual Air Quality Report*. Reports from 1997-2000 are available on IEPA's web site. See <http://www.epa.state.il.us/air/air-quality-report/>

Ambient Groundwater Monitoring. IEPA operates an Ambient Network of Community Water Supply Wells (CWS Network). The Network consists of 362 locations and is designed to:

- Provide an overview of the groundwater conditions in the CWS Wells and major aquifers in Illinois.
- Establish baselines of water quality in the major aquifers, and
- Evaluate the long-term effectiveness in protecting groundwater of IEPA's programs under the Clean and Safe Drinking Water Acts.⁵⁰

The network design is based upon the sampling of existing CWS wells. The use of existing wells is less costly than installing wells specifically designed for monitoring and also allows for the detection of long-term groundwater degradation by producing data that can be compared with records of groundwater quality data compiled over past decades. The purpose of the network is to maximize resources and increase groundwater quality monitoring coverage at CWS wells. In 1997, IEPA implemented a rotating monitoring network program. Funding limitations caused the monitoring frequency of the network to be reduced to a biennial basis.

Environmental and compliance data systems

IEPA is planning for each bureau to utilize the Agency Compliance and Enforcement System (ACES). Currently, each of the Bureaus has separate methods for keeping data so the data are not always consistent.⁵¹ Through a grant from EPA, IEPA will be able to combine information from

¹¹*Illinois Annual Air Quality Report 2000. Illinois Environmental Protection Agency.* Available: <http://www.epa.state.il.us/air/air-quality-report/2000/air-quality-report-2000.pdf>.

¹²"Ambient Groundwater Monitoring". *Illinois Environmental Protection Agency Bureau of Water On-line.* Available: <http://www.epa.state.il.us/water/groundwater/ambient-monitoring.html>.

¹³ Interview with Joseph Svoboda, Roger Kanerva, and Joe Seif

the three major Bureau programs and information from IEPA's legal division into a single database. ACES will allow IEPA staff to access environmental information for a given facility including information on the facility's permits, compliance and enforcement history, and other facility specific information.

The Integrated Comprehensive Environmental Data Management System (ICEMAN) is the Bureau of Air's enterprise data system, which contains emission inventory data, as well as data on fee payments, permit tracking, and inspections. The Bureau of Air is planning to develop an Air Compliance Module for ICEMAN. The Bureau is completing the general design and promised in the 2001 PPA to begin implementing ACES. IEPA plans for ACES to connect with ICEMAN and to integrate the Bureau of Air's compliance and enforcement needs with the rest of IEPA's data systems.⁵²

Measurement

IEPA uses the performance measurement system, SMART Chart, developed by the states and EPA in 1997. The "Hierarchy of Core Performance Measures" is comprised of core environmental indicators, core program outcome measures, and core program output measures. These measures are an important management tool for strategic and program planning. The hierarchy highlights linkages between the ultimate environmental outcomes and program outputs that will help achieve environmental goals.⁵³ Core environmental indicators are placed at the top of the hierarchy and are the most preferred measures. Core program outcome measures are in the middle, and core program output measures are at the bottom. Each media program analyzes the data according to each performance measure in order to establish trends and evaluate how well each media program is meeting its environmental goals; core environmental indicators are then used to measure the program's environmental progress. Core program outcome measures are used to measure program objectives, and core program output measures are used to measure program activities.

Environmental goals, objectives, and indicators are outlined each year in the PPA; and each media program's progress for each goal, objective, and indicator is published in the *Annual Environmental Conditions Report* (See section A.5 on public reporting). Prior to implementing the SMART Chart, IEPA's program measures were separate from its program activities, the agency did not have a systematic way of linking environmental goals and objectives to program objectives and activities.

Evaluation

Performance review is conducted through several mechanisms. IEPA's Annual Report for the Performance Partnership Grant and the Annual Environmental Conditions Report are important to performance evaluation. Its self-assessment under the PPA is also an evaluation tool that serves as a basis for planning the next year's PPA.⁵⁴

¹⁴ *Performance Partnership Agreement 2001. Illinois Environmental Protection Agency On-line.* Available: <http://www.epa.state.il.us/ppa/ppa-fy2001.pdf>.

¹⁵ "Joint Statement on Measuring Progress Under the National Environmental Performance Partnership System" (14 August 1997). *U.S. Environmental Protection Agency On-line.* Available: <http://www.epa.gov/ocir/nepps/joint.htm>.

¹⁶ Performance Partnership Agreement 2002.

A.4 Compliance Tools and Processes

Permits

Permits are important and basic tools that IEPA uses to regulate wastewater discharges. The Bureau of Water issues two types of permits: National Pollutant Discharge Elimination System (NPDES) permits and state construction/operating permits. The NPDES program originates in the federal Clean Water Act. The program requires permits for all sources that discharge treated municipal effluent, treated industrial effluent, and storm water. NPDES permits establish the effluent limits and the conditions under which discharges may occur, as well as water quality monitoring and reporting requirements implemented in the facilities' discharge monitoring reports (DMRs). The state construction/operating permit program is based on the Illinois Environmental Protection Act and regulations issued by the Pollution Control Board.

Inspections

IEPA has incorporated pollution prevention (P2) as an important part of many agency activities, including its inspections and permits. IEPA now requires its inspectors to fill out a "P2 feedback summary form" as part of their inspection report. IEPA's goal is to have at least 20 percent of its inspections produce at least one P2 recommendation.⁵⁵ However, inspectors have found it difficult to accept this new role in providing technical assistance. All three IEPA bureaus support integrating P2 into inspections; however, IEPA officials admit that state inspectors are going through a cultural change that will take time.⁵⁶ In 2000, all agency inspectors were trained in P2, and IEPA plans to continue P2 training of field staff.⁵⁷

The Bureau of Land has developed and incorporated a Compliance Assistance Survey (CAS) into its inspection process. As a result, inspectors have been able to visit many more sites. With the CAS, enforcement is not the focus; rather, when a violation is found inspectors give recommendations for achieving compliance. For sites that do not come into compliance within 90 days, the CAS workplan calls for returning to those sites for more formal inspections.⁵⁸ The Bureau of Land would like to use PPA flexibility to change reinspection timeframes for mandated inspections and gain more discretion in targeting inspections. They claim that if they were allowed to inspect facilities they chose to examine, rather than the ones that U.S. EPA requires them to inspect, they would find a higher level of non-compliance.⁵⁹

The Bureau of Water conducts both planned and unplanned inspections. Inspectors try to reach all minor facilities within five years, focusing on priority watersheds and problems identified through analyzing facilities' DMRs. The Bureau of Water would like to have more flexibility to shift some inspection resources away from major water sources because they have fewer operating problems and are usually on larger streams that pose less danger than small and non-point sources.⁶⁰

⁵⁵ Interview with Norma Van Valkenburg and Kevin Greene.

⁵⁶ *Ibid.*

⁵⁷ *Ibid.*

⁵⁸ Interview with Paul M. Purseglove and David Walter.

⁵⁹ *Ibid.*

⁶⁰ Interviews with Kenneth Rogers and Timothy Kluge.

Civil Enforcement

IEPA can use at least six types of civil enforcement mechanisms, as described below in order from least formal to most serious.

- **Non-Compliance Advisory (NCA).** A Non-Compliance Advisory (NCA) is a pre-enforcement letter used as an initial notice to the facility by IEPA for less significant violations. The NCA will outline the specific violation and the steps necessary to correct the violation. The NCA is considered an informal compliance activity, which allows the violator to avoid formal enforcement procedures under 415 ILCS 5/31. There is no specific statutory basis for the NCA. Rather it is based on IEPA's prosecutorial discretion.⁶¹ The NCA does not stay the 180-day statutory deadline for compliance under 415 ILCS 5/31 if the violator is unable or unwilling to correct the violation.
- **Violation Notice (VN).** A violation notice is the first formal administrative notice required by Section 31(a) of the Illinois Environmental Protection Act. A VN informs a facility of alleged violation(s) and offers an opportunity for a meeting. 415 ILCS 5/31 (a)(1). The VN must include a detailed explanation of any alleged violations, notification of the alleged violator's obligation to submit a written response within 45 days, as well as an explanation of either how IEPA believes the alleged violations may be resolved, or why the alleged violations cannot be resolved without involving the Illinois Attorney General or the State's Attorney of the county in which the alleged violations occurred. 415 ILCS 5/31(a)(1)(A)-(D).
- **Compliance Commitment Agreement (CCA).** The CCA is a statutorily required response by the facility to a VN. The response includes the facility's explanation of the cause of violations, any proposal for corrective action to remedy the violation, and a schedule by which the facility will complete that remediation.
- **Section 31 Proceedings.** 415 ILCS 5/31 (Section 31) sets out IEPA's procedures for formal notice, complaints, and hearings on a violation prior to referral to the Attorney General's office. Within 180 days of becoming aware of an alleged violation, IEPA must serve its written violation notice upon the alleged violator. (See above). The VN must inform the alleged violator of his or her right to meet with IEPA to resolve the alleged violation prior to a formal complaint being filed. 415 ILCS 5/31(a)(1)(A). The alleged violator's written response to this notice must include a proposed Compliance Commitment Agreement, and any requests to meet with the appropriate IEPA personnel. 415 ILCS 5/31(a)(2)(B), (C).

If the alleged violator does request a meeting with the appropriate IEPA personnel, the meeting must occur within 60 days unless IEPA agrees to a postponement. 415 ILCS 5/31 (a)(4). Representatives of the Attorney General or the State's Attorney may not be present at such a meeting. *Ibid.* Within 21 days following the meeting, or within any extended time period agreed to by IEPA, the alleged violator must submit a written response to IEPA which includes any additional information regarding the alleged violation, a proposed CCA (see above), and, if the alleged violator so desires, an indication that the alleged violator still wishes to rely on the initial written response. 415 ILCS 5/31(a)(5).

⁶¹ Interview with Joseph Svoboda.

Within 30 days (or a later time period agreed to by IEPA and the alleged violator) after IEPA's receipt of the alleged violator's first written response or within 30 days of the second written response if a meeting was held, IEPA must serve written notice informing the alleged violator of its acceptance, rejection, or proposed modification to the proposed CCA. 415 ILCS 5/31(a)(7). If IEPA does not respond within 30 days or the agreed upon time period, it shall be deemed an acceptance by IEPA of the proposed CCA from the facility. 415 ILCS 5/31(a)(9). Once IEPA accepts a CCA, it may not refer any alleged violations that are the subject of the accepted CCA to the Attorney General or the State's Attorney. 415 ILCS 5/31(a)(10).

However, if IEPA believes that the alleged violation cannot be resolved without the involvement of the Attorney General or State's Attorney, it is not bound to enter into a CCA with the alleged violator. 415 ILCS 5/31(a)(8). If this is the case, the matter proceeds to the NIPLA stage described below.

- **Notices of Intent to Pursue Legal Action.** If the alleged violator does not respond to the first written notice (as detailed above) within 45 days or fails to submit a written response within 21 days following a meeting with appropriate IEPA personnel, IEPA must serve a written Notice of Intent to Pursue Legal Action (NIPLA) upon the alleged violator 415 ILCS 5/31 (a)(3), (6), and (b). The NIPLA must again detail the alleged violations and set out the option of meeting with appropriate IEPA personnel, which must be done within 30 days of receiving the NIPLA, unless IEPA agrees to a postponement of the meeting or the alleged violator notifies IEPA that he or she does not wish to have a meeting with the 30 day time period. Ibid.

If the violation does not correct the violation following service of the NIPLA, IEPA may:

1. request legal representation by the Attorney General or the State's Attorney, (415 ILCS 5/31(b));
 2. have the Attorney General or the State's Attorney issue a formal complaint requiring the alleged violator to appear at a hearing before the Pollution Control Board no sooner than 21 days following notification by the Board, along with notification to the defendant that financing may be available to correct any violations (415 ILCS 5/31(c)); or
 3. allow any other person to file a non-duplicative complaint with the Board, which must then schedule a hearing and serve written notice upon the alleged violator (415 ILCS 5/31(d)). Cases are not usually referred to a State's Attorney who, in the area of environmental enforcement, is mainly responsible for enforcing county ordinances governing regulatory matters such as burning or open dumping. Cook County is the only county with dedicated resources for environmental enforcement.⁶²
- **Enforcement Referrals.** Once the matter is referred to the Attorney General's office, it is either filed with the appropriate Circuit Court under 415 ILCS 5/42 or the Pollution Control Board under 415 ILCS 5/31(d). The decision of how to proceed is made by the Attorney General's office based on an "enforcement referral" made by the IEPA.⁶³ If the matter has been resolved through a Consent Order, the Attorney General's office

⁶² Ibid.

⁶³ Ibid.

generally will dispose of the matter in Circuit Court, as the court is generally able to approve the Consent Order in a more expeditious manner.⁶⁴

- **Board Hearings.** If, however, the case involves a particular area of expertise, such as complex permitting issues, the Attorney General’s office may refer the matter to the Pollution Control Board.⁶⁵ Under 415 ILCS 5/32, all Board hearings are open to the public, and any person may submit written statements to the Board, who may also to permit any person to offer oral testimony. Any party to the hearing may be represented by counsel, make oral or written argument, offer testimony, and cross-examine witnesses. Transcripts and any additional documents excepted for the record must be available for public inspection. 415 ILCS 5/32. Procedures for hearings before the Board are laid out in 35 Ill. Adm. Code 103. According to the Board’s website, its Chicago office maintains complete records of all cases heard by the Board, and those records are open for public inspection. For general information on the facility or company, IEPA maintains full records in its Springfield office and may have additional records at its regional office closest to the facility. The individual company may also be willing to explain to the public its pollution issues pending before the Board.

Members of the public are not parties to a case before the Board unless they are named in the case title. The Board calls members of the public who wish to be involved in a case “non-party participants.” Non-party participants may give sworn statements on the record at hearing or may submit written statements to the Board. However, they may not ask witnesses questions. Additionally, in some cases, the Board’s hearing officer may set a post-hearing comment period to allow non-party participants more time to submit written statements after the hearing has ended. The Board also allows for the filing of *amicus curiae* briefs in some cases.

Generally, the hearings do not provide for oral public comments from those who are not sworn in but, if allowed, they will not be given the same weight in the Board's final decision as testimony given under oath and subject to cross-examination. Any decision issued by the Board has the force and effect of law and is enforceable in Circuit Court. IEPA is primarily responsible for tracking Board decisions and ensuring compliance.⁶⁶ The Board’s decision may be appealed in one of the five appellate courts in Illinois.⁶⁷

IEPA reimburses the Attorney General’s office \$200,000 per year for services rendered in response to that office’s efforts to recover costs expended by IEPA when cleaning up polluted files.⁶⁸

⁶⁴ Ibid.

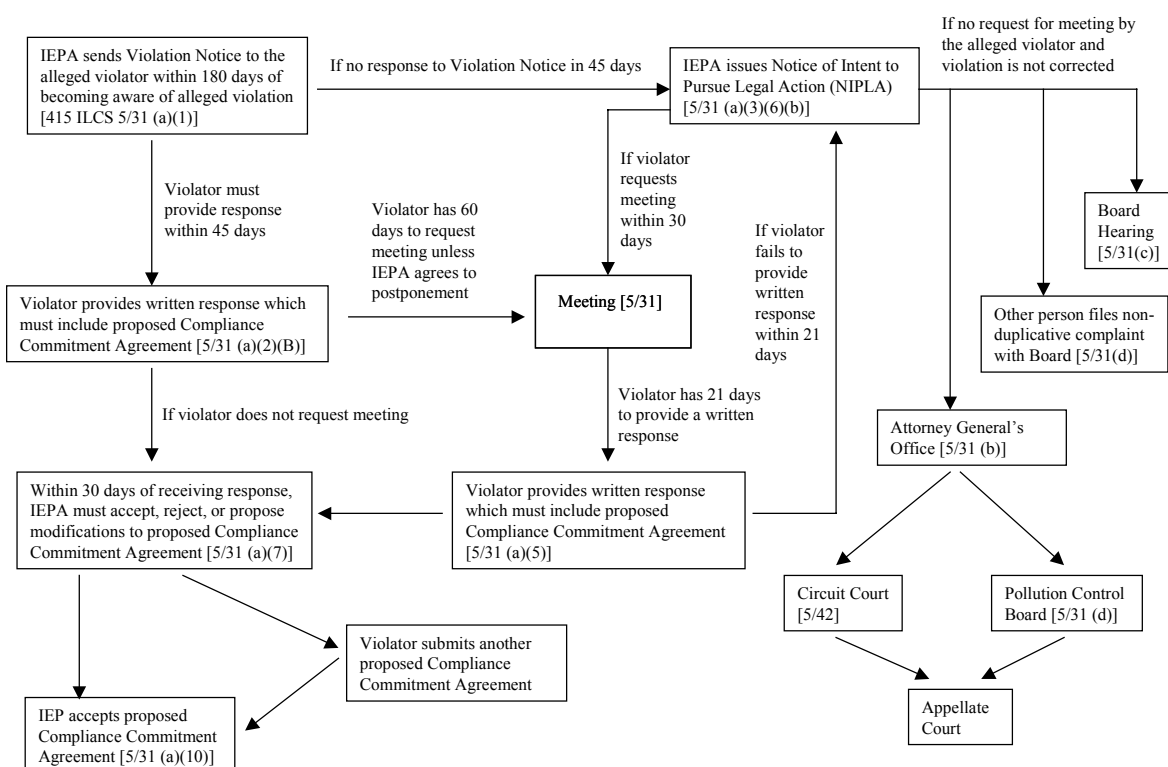
⁶⁵ Ibid.

⁶⁶ Ibid.

⁶⁷ Ibid.

⁶⁸ Ibid.

IEPA Enforcement Procedures under “Section 31” (ILCS 5/31)



Penalties. The maximum penalty that the Board or a Circuit Court may assess is \$50,000 per violation. An additional civil penalty up to \$10,000 per day may be assessed for each day that the violation continues. 415 ILCS 5/42(a). The Environmental Protection Act provides administrative penalty authority for only 12 listed violations, and IEPA has no discretion to assess penalties otherwise.⁶⁹

Administrative Citation. A formal administrative citation can be issued by IEPA only for a limited number of solid waste violations. Penalties for such violations are non-discretionary and range from \$500 to \$1500 per violation. If supporting documents prove the violations, the Illinois Pollution Control Board issues a Final Order.

Contested Case Hearings. Illinois has also created procedures for a Contested Case hearing by the IEPA. Contested case procedures are only available for certain matters where due process is a special concern, such as when IEPA denies or revokes an operator certification for wastewater treatment plants.⁷⁰ There have only been two contested case hearings concerning environmental matters in the past year (2001).⁷¹ These hearings are defined as “an adjudicatory proceeding, not including rate making, rule-making, quasi-legislative, informational or similar proceedings, in which the individual’s legal rights, duties or privileges of a party are required by law to be determined by IEPA only after an opportunity for a hearing.” 35 Ill. Adm. Code 168.103. The hearing is presided over by a hearing officer appointed by the Director of IEPA. After the

⁶⁹ Interview with Joe Svoboda

⁷⁰ Ibid.

⁷¹ Ibid.

hearing is concluded, the hearing officer files a proposal for decision with the Director, who then issues a final decision. 35 Ill. Adm. Code 168.315; 168.325.

Citizens Suits. Prior to initiating a court action for an injunction, a citizen must first file a complaint with Board. Generally, cases brought by citizens concern noise or other nuisances. There is no language in the Illinois statutes that would allow for citizens to recover attorney's fees.⁷²

Compliance and beyond-compliance incentives

Regulatory Innovation Pilot Program. In 1996, IEPA was given the authority to implement a voluntary regulatory innovation pilot program under Sections 52.3-1 to 4 of the Illinois Environmental Protection Act in 1996. IEPA is authorized to enter into Environmental Management System Agreements (EMSAs) with regulated facilities to authorize innovative environmental measures not otherwise recognized or allowed under existing Illinois laws and regulations if those measures:

- Achieve emissions reductions or reductions in discharges of wastes beyond the otherwise applicable statutory and regulatory requirements through pollution prevention or other suitable means; or
- Achieve reductions of real environmental risks or foster environmental compliance by other persons regulated under this Act in a manner that is clearly superior to the existing regulatory system.⁷³

An EMSA operates in lieu of all applicable requirements under Illinois and federal environmental statutes, regulations, and existing permits as identified in the EMSA.⁷⁴ Initial EMSAs were available until December 31, 2001, and can be renewed for five-year periods after that date. To be eligible, participating facilities must be in good standing, with no current or past violations; must not currently be subject to enforcement or have a history of violations; and must not have failed to renew any permit, submit any required application, or paid any required fee or penalty to the state.

A facility is not required to adopt an Environmental Management System (EMS) as part of its EMSA; however, the development and use of an EMS is among the suggestions for potential innovation projects. IEPA is authorized to monitor compliance with the EMSA and to require any reporting that it deems appropriate. IEPA will also consider whether an EMSA contains adequate provisions to ensure performance, taking into account: technical complexity, environmental risk associated with the project, and the uncertainty that the proposed innovative environmental measures authorized by the agreement will be successful.

IEPA has identified the following benefits of its EMSAs:

- Regulated entities gain greater flexibility to develop alternative strategies that will replace specific regulatory requirements, while furthering environmental improvement.

⁷² Ibid.

⁷³ "Regulatory Innovation Statute: Section 52.3 of the Environmental Protection Act". *Illinois Environmental Protection Agency On-line*. Available: <http://www.epa.state.il.us/regulatory-innovation/section-52-3.html>.

⁷⁴ "Regulatory Innovation Pilot Program for Illinois Overview". *Illinois Environmental Protection Agency On-line*. Available: <http://www.epa.state.il.us/regulatory-innovation/overview.html>.

- Such entities can also avoid some of the often burdensome and costly transactional requirements of environmental laws and regulations.
- Greater incentives will be given in an EMSA for pilot projects that include provisions for operating sustainably through continuous improvements in products and processes.

As of January 2, 2001, two EMSAs had been executed, two facilities had withdrawn from the program, and one facility had sent a letter of intent without taking further action.

- **3M- Bedford Park Plant.** The state's first Regulatory Innovation Pilot Project has been set up by 3M. Its EMSA was executed on March 8, 2000. Under the agreement, 3M operates under plant-wide emission limits from all of its air pollution control equipment and does not need to obtain separate air permits from IEPA. Under the agreement, the plant will operate in conformance with the ISO 14001 standards, and will set environmental objectives and targets, including pollution prevention goals each year.⁷⁵
- **Nestle USA- Jacksonville.** EMSA executed on March 13, 2001.
- **Bridgestone/Firestone- Decatur Plant.** EMSA has not been executed. An intent letter was filed on April 15, 1999, and IEPA responded on May 13, 1999, but no further action since then.
- **Navistar International Corp- Melrose Park.** Intent letter was filed on December 2, 1998, and IEPA responded on January 8, 1999. Navistar withdrew from the program on March 25, 1999.
- **Fuji Hunt Photographic Chemicals- Rolling Meadows.** An intent letter was filed on January 21, 1999, and IEPA responded on February 18, 1999. Fuji later withdrew from the program on March 1, 2000.

IEPA requires that each EMSA include productive stakeholder involvement in a pilot project's development and implementation. A stakeholder group must include representatives from community groups, citizen groups, economic and business, academic institutions, religious organizations, and governmental entities from each level. With complex agreements, the sponsor of the pilot project may be required to provide technical assistance in order to promote informed participation by the members of the stakeholder group. The sponsor must also maintain on-going communication with the stakeholder group and consistently inform the members of the project's status. The communication process includes annual meetings and periodic distribution of performance information, as well as any problems that have been encountered and the action the facility took in response to the problem.

Because very few companies have chosen to become a part of the EMSA program, and only two have actually reached the final stage, it appears that either the program is too burdensome or the benefits are not sufficient to attract more participants.

ISO 14001/Environmental Management Systems. IEPA is one of ten state environmental agencies participating in the national research project evaluating ISO 14001/Environmental Management Systems. To participate, the companies must voluntarily complete three protocols: baseline, data, and update protocols. The protocols cover the following categories: (1) management systems; (2) environmental performance; (3) regulatory compliance; (4) pollution

⁷⁵ "3M Bedford Park Signs Pilot Environmental Management Plan". *Environmental Progress- Illinois Environmental Protection Agency On-line*. Available: www.epa.state.il.us/environmental-progress/v25/n1/3m-bedford.html.

prevention; (5) interested party involvement; (6) cost savings, and (7) EMS design and implementation.⁷⁶ Thirteen facilities in Illinois are currently participating in the project and are contributing data to the National EMS Database (NDEMS).

IEPA has provided the following incentives for encouraging participation in the NDEMS project:

- Assistance from staff in completing the protocols;
- Technical assistance in pollution prevention and public involvement;
- Access to independent research on ISO 14001;
- Illinois EPA publicity/recognition.

Emissions Reduction Market System (ERMS). Illinois has pursued a market-based approach to minimize the cost of further reducing volatile organic material (VOM) as required by the federal Clean Air Act for the Chicago ozone nonattainment area. This market-based program has been under development since 1993. ERMS applies only to major stationary sources that are located in the Chicago ozone nonattainment area. The trading program establishes an overall level of emissions for the group of affected sources, as well as a requirement that individual sources contribute to achieving reductions. The sources determine their own methods for achieving reductions and can target the least costly means to achieve lower emissions. A source facing high costs to control its own emissions can trade with other sources to take advantage of less costly emission reductions.

The ERMS is a “cap and trade” market system. Participating sources must hold “trading units” for their actual VOM emissions. Annually, beginning with the 2000 ozone season, sources were given trading units based on the first allotment set during issuance of the sources’ Clean Air Act Permit Program (CAAPP) permits. The allotments were established based on historical VOM emissions or baseline emissions. Baseline emissions are the participating source’s actual average VOM emissions during two ozone seasons, adjusted for voluntary over-compliance or non-compliance. At the end of each ozone season, sources must hold enough trading units to cover their actual VOM emissions during the season. Surplus allotment trading units (ATUs) may be sold to other sources or banked for the next season. Sources with low costs to reduce emissions will have an incentive to reduce more VOM emissions and sell the surplus trading units. Each ATU is worth 200 pounds of VOM emissions.

The allotment given to a source is generally equivalent to the source’s baseline emissions reduced by 12 percent. There is a reconciliation period from October 1 to December 1 each year when sources must compile actual emission data for the ozone season, check current ATU holdings, and make necessary purchases of ATUs in order to ensure that enough ATUs are held. At the end of the reconciliation period, sources are required to demonstrate compliance with the ERMS by having enough ATUs to account for their actual VOM emissions during the previous ozone season. Sources that do not hold sufficient ATUs will be required to make monetary compensation determined by the amount of the “emissions excursion.” ERMS has also established an Alternative Compliance Market Account (ACMA) in the event that there are not enough ATUs available through the market. The ACMA is a reserve account managed by IEPA.

Site Remediation Program. IEPA has a remediation program for restoring contaminated sites to productive use. The program is voluntary and is administered by the Remedial Project Management Section of IEPA’s Bureau of Land. The program’s mission statement is: “To

⁷⁶ “ISO 14001/Environmental Management Systems”. *IEPA Online*. Available: <http://www.epa.state.il.us/iso14001/>

safeguard human health and the environment by providing long-term environmental solutions and beneficial use of land by and for the citizens of Illinois.” This mission is accomplished by:

- Complying with state and federal statutes.
- Establishing credibility and trust by implementing decisions based upon sound science and ethical professional judgment.
- Identifying sites, which pose unacceptable risks to human health and the environment through comprehensive environmental investigations.
- Implementing sound environmental remedies, which mitigate unacceptable risks to human health and the environment at the sites.
- Fostering healthy relationships and mutual respect among stakeholders
- Considering the local values and the environmental perspectives of the citizens of Illinois.⁷⁷

In 2000, there were 249 enrollments and 870 acres remediated. IEPA has set a goal to have 10,500 acres remediated by 2004.⁷⁸

The objective of the program is to provide “Remediation Applicants” (RAs) with the opportunity to receive review and evaluation services, technical assistance, and no further remediation determinations from IEPA. Successful participants in the program who have demonstrated that all environmental conditions at their sites do not present a significant risk to human health or the environment receive a “No Further Remediation” (NFR) letter from IEPA. The letter constitutes a release from further responsibilities under the Illinois Environmental Protection Act and indicates that the site does not pose significant risk of harm to human health and the environment, as long as the site is utilized in accordance with the terms of the NFR letter. IEPA may also issue an NFR letter to those who have demonstrated successful remedial actions for a release or threatened release of specific contaminants of concern. U.S. EPA and IEPA have entered into a Superfund Memorandum of Understanding through which Region V agrees that no further response action will not be taken by Region V at sites that have received an NFR letter. As of 2000, 172 NFR letters had been sent.

IEPA is authorized to review and evaluate site investigation reports, remediation objective reports, remedial action plans, and remedial action completion reports. IEPA also collects samples and analyzes them, assists with community relations, and coordinates and communicates between the RA and other governmental entities.⁷⁹

IEPA’s remediation section is composed of 26 project managers. They are grouped into three operational areas dealing with site assessment, National Priorities List facilities, and federal facilities. Each project manager reports to a section manager. The staff also implements the Superfund program in Illinois.

⁷⁷ *Federal Site Remediation Program Annual Report 2000. Illinois Environmental Protection Agency On-line.* Available: <http://www.epa.state.il.us/land/site-remediation/index.html>

⁷⁸ “Site Remediation Program Annual Report” (2000).

⁷⁹ “Federal Site Remediation Program Overview”. *Illinois Environmental Protection Agency On-line.* Available: <http://www.epa.state.il.us/land/site-remediation/overview.html>.

Community involvement in this program is limited. However, IEPA has found that some form of communication between the Remediation Applicant and the community improves the investigation and the remediation process. Large, complicated sites may need to develop a Community Relations Plan (CRP). IEPA will assist RAs in determining whether or not a CRP is needed and will provide oversight to those who must develop a CRP.

IEPA and the Bureau of Land publish the *Federal Site Remediation Program Annual Report*. The Report outlines site remediation projects and achievements for each operational area. Reports for 1999 and 2000 are available on IEPA's web site. See: <http://www.epa.state.il.us/land/site-remediation/index.html>

Clean Break. Clean Break, a small business amnesty program, was developed by IEPA in the late winter/early spring of 1995 as a pilot in two Illinois counties. Amnesty agreements were the core of the program. Participants received conditional amnesty from violations specified while they were coming into compliance. The two-county pilot did not initially include site visits. Participants brought a list of documents to a meeting with IEPA. IEPA conducted a remote audit to identify compliance problems.

In general, participation rates dropped as the program's scope expanded from county to statewide sectors to all small businesses; however, percentage of participants with compliance problems also dropped. The Clean Break program ended in 1998, and, during the final year, almost all participants had no compliance problems. Ultimately, the program became more like a recognition program for good actors. Marketing was difficult except at the county level. Ads in newspapers were run and the program conducted mailings to particular SIC codes; however, those mailings did not materially increase participation rates.

Clean Break was very resource intensive across all key program elements: marketing, meetings with participants, drafting amnesty agreements, and tracking participation.⁸⁰ IEPA's Office of Small Business managed the program, and field staff conducted site visits. IEPA has not tracked participating businesses to determine whether they were able to reduce pollution.

Annual Illinois Governor's Prevention Awards. Illinois Waste Management and Research Center (WMRC) and Illinois Department of Natural Resources have been presenting Governor's Awards since 1985. The awards honor industrial facilities, vendors, trade organizations, community groups, educational institutions, government, and service institutions for their pollution prevention efforts. Organizations that focus on source reduction techniques are honored through this program.

Compliance assistance

Office of Pollution Prevention. IEPA has expanded its focus from regulation of pollution sources to include encouragement and assistance in the development of alternative manufacturing processes. Pollution prevention has become an underlying theme that motivates many IEPA activities.⁸¹ The mission of the Office of Pollution Prevention (OPP) is to promote pollution prevention (P2) as the preferred strategy for environmental protection. OPP has partnered with a number of other trade associations, who help IEPA with outreach to their members and other business sectors.⁸²

⁸⁰ Interviews with Norma Van Valkenburg, Client Services Executive, Office of Small Business; and Kevin Greene, Manager, Office of Pollution Prevention.

⁸¹ "History of the Illinois EPA". *Illinois EPA Online*. Available: <http://www.epa.state.il.us/about/history.html>

⁸² Interview with Norma Van Valkenburg, Client Services Executive, OSB and Kevin Greene, Manager, OPP, 2/5/01

OPP seeks to promote P2 to businesses and others through cooperative partnerships, voluntary approaches, technical assistance, and community outreach. OPP's core activities include:

- Providing training to IEPA personnel;
- Developing performance measures to evaluate the effectiveness of IEPA's P2 programs and services;
- Improving the delivery of P2 technical assistance and technology transfer;
- Encouraging businesses to incorporate P2 into their core management and organizational activities;
- Promoting P2 through collaborative, sector-based leadership initiatives, such as the Great Printers Project and the Dry Cleaner Star Program;
- Working with community development interests and others in targeted geographic areas to provide P2 assistance to small and medium-size businesses; and
- Identifying and discriminating information on model P2 programs to workshops in conferences.

To help foster P2 activities in IEPA's regulatory programs, OPP and the three media programs (Bureau of Air, Bureau of Land, and Bureau of Water) have created a special team to assist each bureau in developing strategies, projects, and measures that will help them achieve their environmental goals through P2. According to its website, the OPP team is currently working with each media bureau to catalog, and evaluate the effectiveness of existing P2 efforts and to help the programs identify additional opportunities for increasing the use of P2 in their daily activities. All inspectors are also trained in the P-2 bottom-up approach.

Several regulatory integration projects have also been jointly initiated. These include:

- Promoting P2 as a way for major air sources in the Chicago metropolitan area to achieve compliance and create emission reduction credits under the state's ozone control strategy.
- Working with IEPA's Bureau of Air and the North Business and Industrial Council to help surface coaters, printers, and solvent degreasing operations achieve compliance with air pollution regulations in an industrial corridor of Chicago.
- Partnering with the Bureau of Water and the Village of Addison Sanitary District to promote P2 as a way for metal finishing facilities to comply with wastewater discharge limits for several trace metals.
- Incorporating P2 into the Bureau of Land's compliance assistance outreach efforts to small businesses, such as dry cleaners, auto-body shops, and photo-processors.

Office of Small Business. The Office of Small Business provides technical and compliance assistance to small businesses through the Office's Compliance Guides and other publications devoted to sectors, such as dry cleaners and storm water runoff. In addition, the Office has a Compliance Assistance Help Line. It also has an Ombudsman who provides information, principally in the area of clean air, on topics ranging from technical assistance to help identifying financial sources for pollution control investments. The Office ran the Clean Break Program prior to its conclusion, providing conditional amnesty to small businesses for certain types of violations.

Waste Management and Research Center. The Waste Management and Research Center provides technical assistance services to industry, including manufacturing extension centers and chemical suppliers through the Pollution Prevention Program. The program is intended to create awareness through presentations, technical papers, fact sheets, databases, and Internet resources, as well as to promote the development of cutting-edge technological solutions to specific process problems that generate waste.

Media Program Compliance Assistance.

- **Bureau of Air.** Compliance assistance is performed in five sections of the Bureau of Air: Compliance and Systems Management, Field Operations, Permits, Ambient Air Monitoring, and Air Quality Planning. The Bureau of Air conducts on-site inspections of sources and assesses their compliance status. It also offers assistance with interpretation of regulations, permit application forms, and bureau programs. The Bureau has trained approximately 500 people on emission inventory reporting and on various other programs, including 250 account officers for the Emissions Reduction Market System program. Guidance documents for New Source Review and for renewing and revising CAAPP Permits are available on IEPA's web site. IEPA's web site also provides information on permitting, asbestos, downloadable forms, Bureau reports, and fact guides.⁸³
- **Bureau of Water.** The Bureau of Water conducts compliance assistance through its wastewater and drinking water programs, as well as through the municipal wastewater assistance program as part of the Water Pollution Control Field Operations section. The Bureau has 54 field staff in seven regional offices who handle almost any fieldwork, including compliance assistance, permitting, complaints, inspections, and enforcement. The field staff's responsibility at a plant site is to identify what a facility needs to do to return to compliance.⁸⁴

The Municipal Wastewater Assistance Program has been operated by IEPA since 1984. The program is a cooperative effort established under the federal Clean Water Act to help bring facilities into compliance and/or maintain compliance with state and federal requirements. Dozens of Illinois communities have used the program to produce and maintain compliance in their facilities. The Wastewater Program includes a facility self-monitoring system, other systems for early identification of potential compliance problems, and the implementation of actions to achieve or sustain compliance.

The Drinking Water Program promotes compliance maintenance through assisting facility operators and officials in planning for preventative and corrective actions. The program also includes a facility self-monitoring system, systems for early identification of compliance problems, and the implementation of procedures to achieve or sustain compliance. The Bureau of Water provides facilities with compliance information through its web site and reports. The web site includes forms, applications, publications, and operator certification information. The Bureau also provides an annual compliance trend analysis report to facilities to assist in sustained compliance and early warning of operational needs.⁸⁵

⁸³ ECOS Enforcement and Compliance Project. Bureau of Air. Respondent Buzz Asselmeier.

⁸⁴ Interview with Kenneth Rogers, Manager, Compliance Assurance Section, Bureau of Water; Timothy Kluge, Manager, Field Operations Section, Division of Water Pollution.

⁸⁵ ECOS Enforcement and Compliance Project. Bureau of Water. Respondent Ken Rogers.

- **Bureau of Land.** The Bureau of Land performs compliance assistance through its Field Operations Section. Compliance Assistance Surveys are the primary compliance mechanism used by the Bureau. These surveys provide small businesses with a basic overview of program regulations, their compliance status, and pollution prevention opportunities. The surveys are primarily educational, and enforcement is not the focus.⁸⁶

A.5 Informing and Interacting with the Public

Public reporting

Annual Environmental Conditions Report. IEPA began publishing its Annual Environmental Conditions Report in 1995. The agency has committed to preparing and distributing the report in NEPPS agreement with Region V. The report conveys to the public specific environmental improvements and communicates the results of IEPA's progress toward these goals. The report focuses on the state's environmental goals and objectives. The report is structured around the IEPA's three major media programs: Air Quality Management, Water Quality Management, and Land Quality management, plus Multimedia Management. Specific goals and objectives are outlined for each program, and performance measures and indicators are given for those objectives.

For example, in the *Annual Environmental Conditions Report 2000*, the Air Quality Management program stated that its goal is: "Illinois should be free of air pollutants at levels that cause significant risk of cancer or respiratory or other health problems. The air should be clearer, and the impact of airborne pollutants on the quality of water and on plant life should be reduced."⁸⁷ The environmental objectives for this goal include attainment of the one-hour ozone standard in the Chicago nonattainment area by 2007, and maintaining attainment status for pollutants other than ozone, especially in urban areas.

The report also shows data related to all environmental objectives. In the 2000 report, trends and analyses over a period of 10 years are presented to show progress for each objective. For instance, the Ozone Nonattainment Area Trend shows the progress towards meeting the one-hour ozone standard from 1990-2000. Similar data are given to show progress, over time, for available landfill space, proper disposal of solid waste, and the percentage of waterways in good condition. Data for compliance assistance are provided in the Program Performance sections for both Land Quality Management and Water Quality Management. Compliance Assistance Surveys in the Land Quality Management section explain how IEPA provides assistance to smaller companies by performing preliminary inspections. In 2000, the compliance rate observed through the Compliance Assistance Surveys was 73 percent. Compliance progress over a six-year period is given for community water supplies and shows the progress made towards the objective of 100 percent of the population served by compliant water supplies by 2005.

Other sections of the annual report provide practical applications and tips for citizen use, such as the "Ozone Action Days Top 10 Tips for Individuals to Reduce their Contributions to Ozone."⁸⁸ The 2000 report, as well as reports for 1996 and 1997, are available on IEPA's web site, and

⁸⁶ ECOS Enforcement and Compliance Project. Bureau of Land. Respondent Paul Purseglove.

⁸⁷ Illinois Environmental Protection Agency. *Annual Environmental Conditions Report* (2000).

⁸⁸ Illinois Environmental Protection Agency. *Annual Environmental Conditions Report* (1999).

reports for all other years are available through IEPA. See: <http://www.epa.state.il.us/environmental-conditions/>. Each bureau also publishes program-specific reports that can be accessed through the IEPA's web site, but bureau reports are not widely distributed and are not directed toward the public.

Consumer Confidence Report. The Bureau of Water requires all community water suppliers to conduct periodic self-monitoring. The information obtained from the self-monitoring program must be submitted to IEPA. IEPA ensures that this information is summarized in the *Consumer Confidence Reports* that are distributed annually to each water customer. Every community water system that serves at least 25 residents year round or that has at least 15 service connections must prepare and distribute a consumer confidence report. These reports include basic information on the source(s) of water, the levels of any contaminants detected in the water, compliance with other drinking water rules, and educational material.

Air Quality Index. The Air Quality Index (AQI) was introduced by IEPA in 2000. IEPA's web site provides the public with daily air quality information for various cities in Illinois, including information on the current day's AQI, the previous day's AQI; and it provides a forecast for the next day's AQI. The site also includes information on the major pollutants for the particular area and day. Air quality is categorized according to good, moderate, or unhealthy conditions; and descriptions for each category are also given on the website at <http://www.epa.state.il.us/air/aqi/index.html>.

The Condition of Illinois Watersheds. This report and website include an interactive map that enables the public to obtain information regarding specific watersheds in a given region for the years 2000, 1999, and 1996. This resource is a part of the Illinois Water Quality Report, which must be submitted annually to U.S. EPA and Congress. The watersheds are given ratings of good, fair, poor, or not assessed based on physical, chemical, and biological data collected through 1998. The water quality for each basin is also compared to statewide water quality, and the conditions in each watershed are updated annually. IEPA also provides 33 watershed fact sheets, one for each watershed in Illinois. See <http://www.epa.state.il.us/water/water-quality/current-report/fact-sheets/lakes-strms06.pdf>.

Public Involvement

IEPA provides several mechanisms for enhancing public involvement and improving the public's knowledge of environmental issues. IEPA's Office of Community Relations is made up of community coordinators who work with citizens, public interest groups, and industry to improve the efficiency and effectiveness of IEPA's environmental programs. The Office of Community Relations supports a variety of IEPA's programs. It coordinates outreach activities, explains environmental laws, and evaluates and responds to environmental complaints from citizens. The objectives of the Office of Community Relations are to:

- Ensure the public receives accurate and timely information about IEPA activities.
- Offer the public the opportunity to participate or comment on environmental decisions.
- Foster communication between technical staff and the regulated community, local officials, and citizens affected by IEPA activities.

- Identify and remove obstacles that interfere with the successful implementation of IEPA programs.⁸⁹

From 1997 to 1999, IEPA received slightly more than 2,000 citizen complaints each year.⁹⁰ There are no data, however, to record how the agency responded to or resolved those complaints.

Volunteer Lake Monitoring Program. The VLMP was established in 1981 to serve as an educational program for citizens to learn about lake ecosystems, as well as a cost-effective method of gathering information on the water quality of Illinois' inland lakes. The program is funded by the federal Clean Water Act and the state's Conservation 2000 Program. The program has five core objectives:

- Increase citizen knowledge and awareness of the factors that affect lake quality so they can make informed decisions.
- Encourage development and implementation of sound lake protection and management plans.
- Develop local grassroots support for environmental programs and foster cooperation among citizens, organizations, and various units of government.
- Provide historic data to help document water quality impacts and support lake-management decision-making.
- Provide a guide for the implementation of lake protection/restoration projects and a framework for technical assistance through cooperative lake and watershed management projects.⁹¹

Citizens participate in VLMP primarily through collecting water quality samples. They select a specific lake and are trained to measure water clarity. Samples are sent to IEPA's Champaign Laboratory for analysis. After one year in the Basic Monitoring Program, citizens can enter the Expanded Monitoring Program to collect water samples monthly. VLMP activities are published in the Bureau of Water's quarterly newsletter, *Water Watch*, and are available on the IEPA web site. For *Water Watch* see, <http://www.epa.state.il.us/water/water-watch/>

Resource Watch. This program is sponsored by the Illinois Department of Natural Resources (IDNR), to protect Illinois' natural resources and promote environmental stewardship. The volunteer program encourages citizens and businesses to adopt and monitor wildlife protection and conservation areas in the state. Participants in Resource Watch can assist in certain wildlife management efforts and can monitor specific areas at least twice a month to report any activity that threatens wildlife or the environment. See: <http://dnr.state.il.us/law3/images/watch.htm>

EcoWatch Network. The EcoWatch Network is a statewide network of volunteer monitoring programs coordinated through IDNR. Adult volunteers and high school science teachers and students monitor rivers, forests, prairies, wetlands, and other environments through programs such as the Illinois RiverWatch, ForestWatch, PrairieWatch, WetlandWatch, and UrbanWatch.

⁸⁹ "About the Office of Community Relations". *Illinois Environmental Protection Agency On-line* Available: <http://www.epa.state.il.us/community-relations/index.html>.

⁹⁰ ECOS Enforcement and Compliance Project, 27.

⁹¹ Illinois Volunteer Lake Monitoring Program. Available: www.epa.state.il.us/water/conservation-2000/volunteer-lake-monitoring/index.html.

The goals of the network are high-quality environmental data collection, increased public awareness and environmental stewardship. See:
<http://dnr.state.il.us/orep/inrin/ecowatch/index.htm>

A.6 Financial and Human Resources

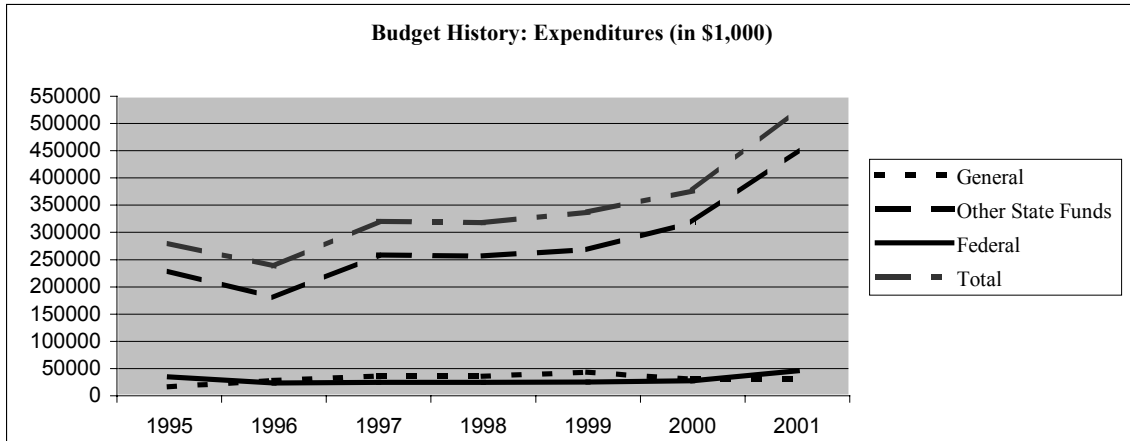
Budget

Over the past five years, IEPA's budget has increased substantially. Although general state funds decreased in FY00, increases in other state funds offset that difference as show in the following charts:

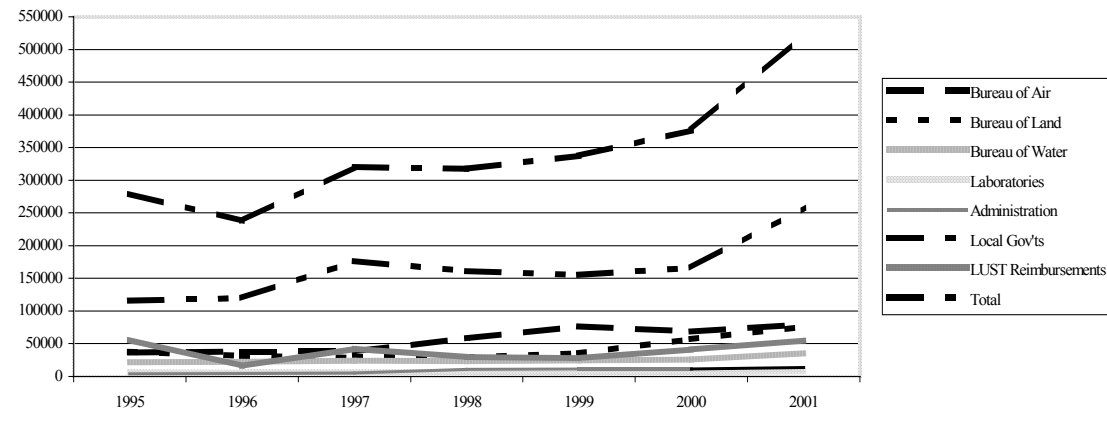
Illinois EPA Budget History

Expenditures (\$1000)	FY95 Actual	FY96 Actual	FY97 Actual	FY98 Actual	FY99 Actual	FY00 Actual	FY01 Estimated
General Funds	16,183.1	28,102.9	36,505.0	36,023.4	43,400.7	29,895.1	29,889.1
Other State Funds	228,447.9	180,415.0	258,813.3	256,879.6	268,772.7	318,783.3	450,874.9
Federal Funds	34,812.4	29,214.0	24,951.6	24,884.7	25,300.0	27,799.2	45,770.8
Total	279,443.4	237,731.9	320,269.9	317,787.7	337,473.4	376,477.6	526,534.8
Programs							
Bureau of Air	36,581.9	37,574.6	38,288.1	58,169.6	76,494.4	68,390.9	80,075.8
Bureau of Land	37,694.4	31,377.3	28,403.9	29,040.3	35,472.9	57,136.9	76,246.7
Bureau of Water	21,923.2	22,349.3	23,963.7	23,378.2	24,461.1	25,465.9	35,371.6
Laboratories	6,843.0	5,920.3	5,757.9	5,805.9	6,670.9	6,805.8	8,253.6
Administration	4,108.1	4,588.5	5,133.2	10,969.0	11,170.2	11,535.4	13,578.7
Local Governments	116,060.1	119,977.1	176,213.7	160,977.6	155,161.4	166,139.7	258,008.4
LUST Reimbursement	56,232.7	15,944.8	42,509.4	29,447.1	28,042.5	41,000.0	55,000.0
Total	279,443.4	237,731.9	320,269.9	317,787.7	337,473.4	376,477.6	526,534.8

Illinois EPA Budget History by Funding Source



Illinois EPA Budget History by Program (\$1000)



Staffing

IEPA's staff numbers have not changed in any significant way in over the past five years, despite its increased funding.

A.7 Environmental and Compliance Performance

IEPA has evaluated how each bureau uses various enforcement tools to determine how many actions actually result in compliance. The Bureau of Air has calculated that 80 percent of Non-

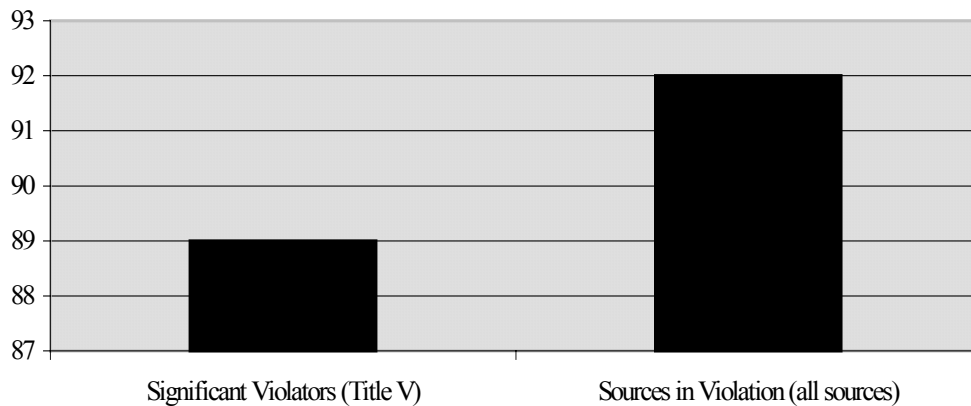
Compliance Advisories (NCA) resulted in compliance from 1997-1999, and 95 percent of Violation Notices (VNs) resulted in compliance.⁹²

The Bureau of Water has found that its compliance assistance provided in advance of new program requirements can be extremely effective. As a result of its compliance assistance outreach efforts, the Bureau of Water calculates that it has achieved over 98 percent compliance statewide during the first year of a new and complex Consumer Confidence Report requirement under the Safe Drinking Water Act.⁹³ The Bureau of Water issues NCAs as many as 1500 times per year and VNs as many as 300 to 400 times per year.⁹⁴ The Bureau of Water calculates that 83 percent of its NCAs produced compliance, and 76 percent of its VN resulted in compliance (as of calendar year 1999).

NCAs issued by the Bureau of Land produced a compliance rate of 57 percent and VNs resulted in 44 percent compliance. In 2000, the Bureau of Land conducted 268 Compliance Assistance Surveys (CAS). Inspectors found no regulatory deficiencies during 141 of the 268 surveys, and compliance was accomplished during the CAS at 55 facilities. The Bureau of Land calculates that its compliance rate achieved through the CAS was 73 percent.⁹⁵

The following 12 graphs demonstrate the compliance rates reported by IEPA's various bureaus. The information was compiled by IEPA for the ECOS Enforcement and Compliance Project.⁹⁶ The graphs below reflect data for calendar year 1999, the most recent Illinois data available at the time of the ECOS study.

Air Bureau Compliance Rates (percent)



The Air Bureau calculated the compliance rates for Significant Violators and all Sources in Violations by dividing the number of sources in compliance by the total known number of sources in the regulated universe.

⁹² ECOS Enforcement and Compliance Project

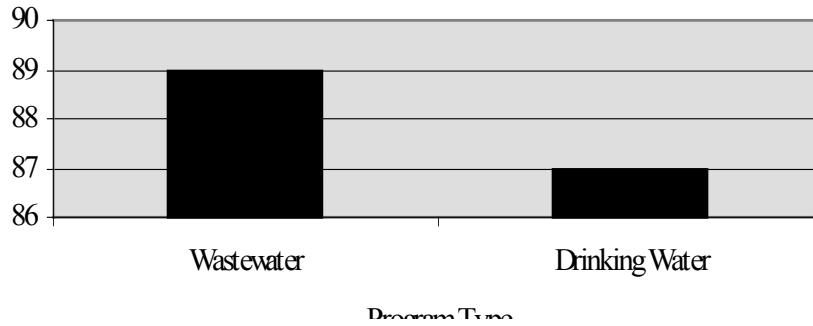
⁹³ Interview with Kenneth Rogers and Timothy Kluge

⁹⁴ Ibid.

⁹⁵ Annual Environmental Conditions Report (2000).

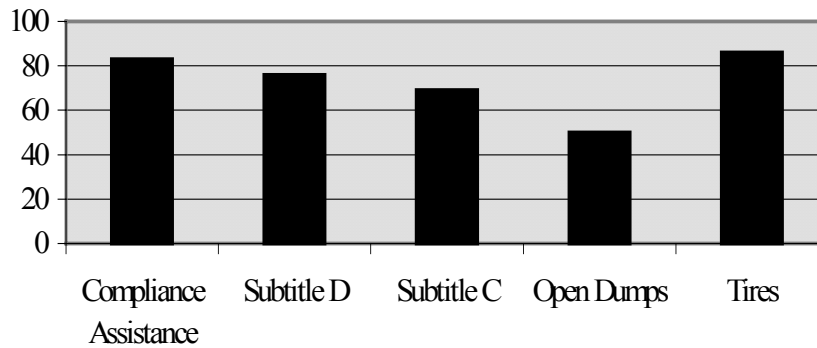
⁹⁶ *ECOS Enforcement and Compliance* (April 2001).

Water Bureau Compliance Rates (percent)



The Water Bureau calculated the compliance rate for the wastewater treatment program by dividing the number of facilities without significant non-compliance by the total number of treatment facilities. The compliance rate for the drinking water program was calculated by dividing the number of sources in full compliance with all requirements by the total number of sources.

Bureau of Land Compliance Rates (percent)

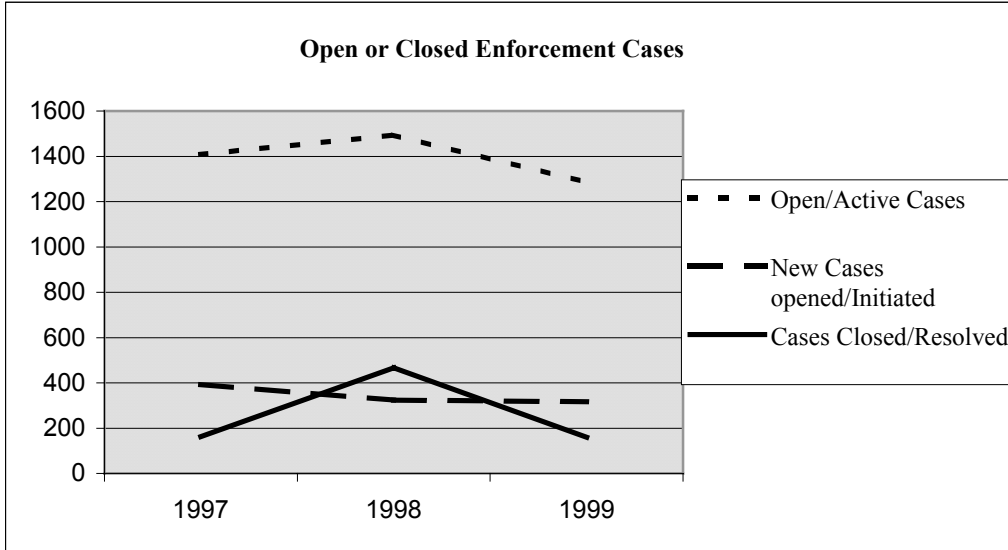
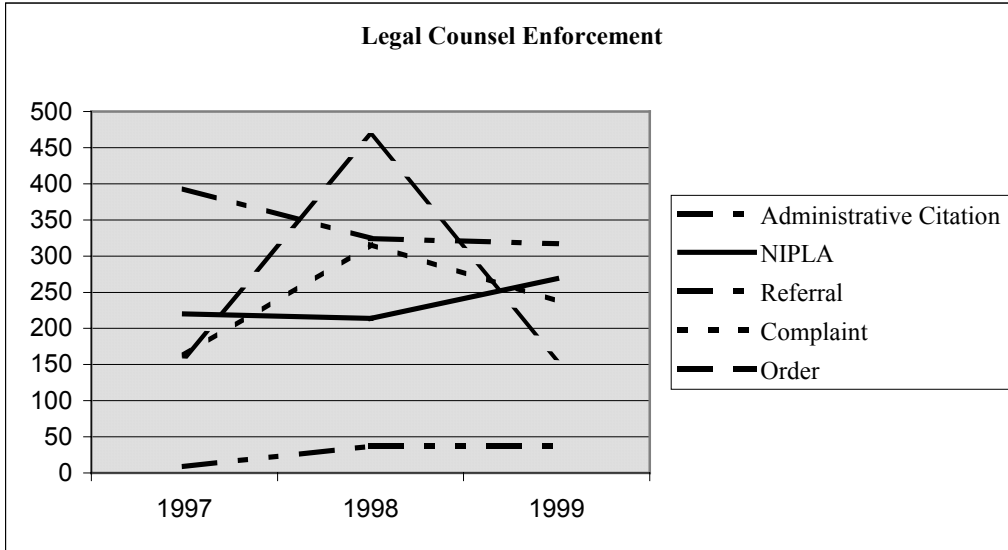


The Bureau of Land based its compliance rate calculations on the following data:

Program Type	Calculation
Compliance Assistance	788 initial surveys 665 returned to compliance
Subtitle D	350 inspections 85 found in violation
Subtitle C	361 inspections 111 found in violation
Open Dumps	740 inspections 371 found in violation
Tires	1308 inspections 185 found in violation

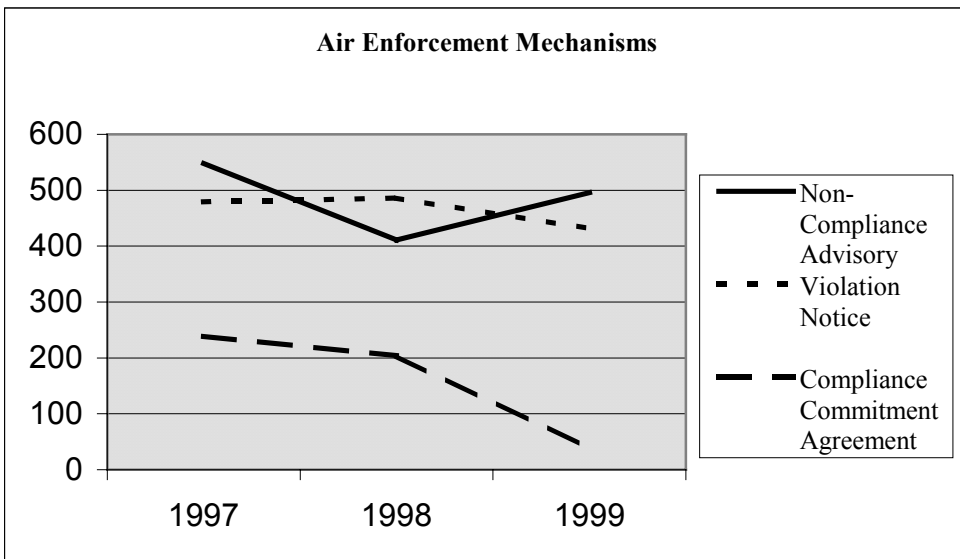
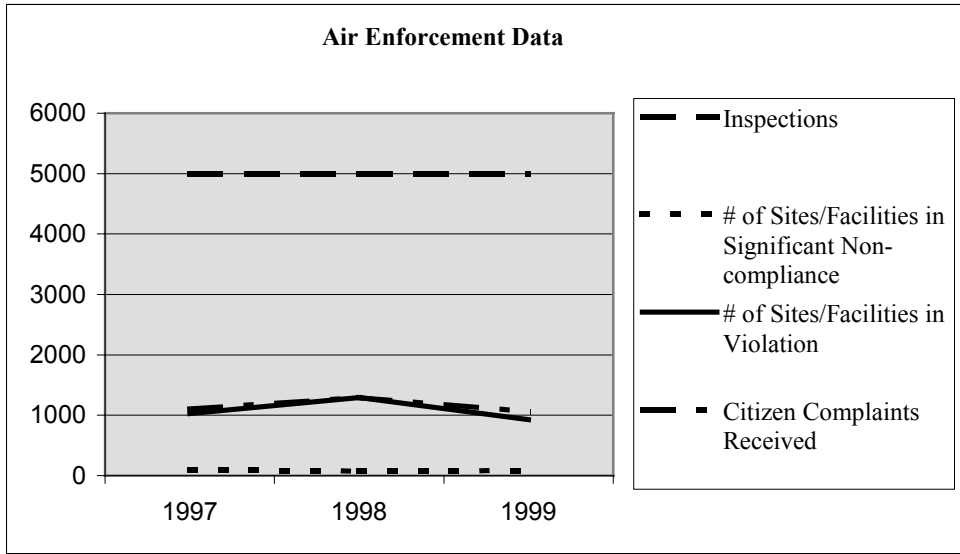
For the three years with available data, the following two charts track the numbers of administrative actions and enforcement cases handled by IEPA.

IEPA Enforcement Cases

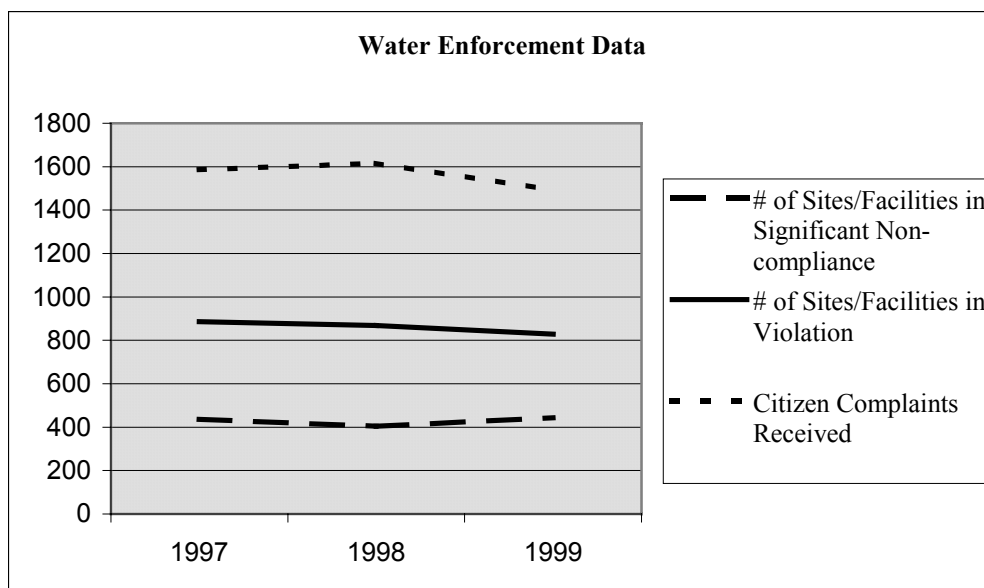


The next series of six charts separates the numbers of enforcement cases and enforcement mechanisms used by each of IEPA's three main Bureaus over the three years for which data are available.

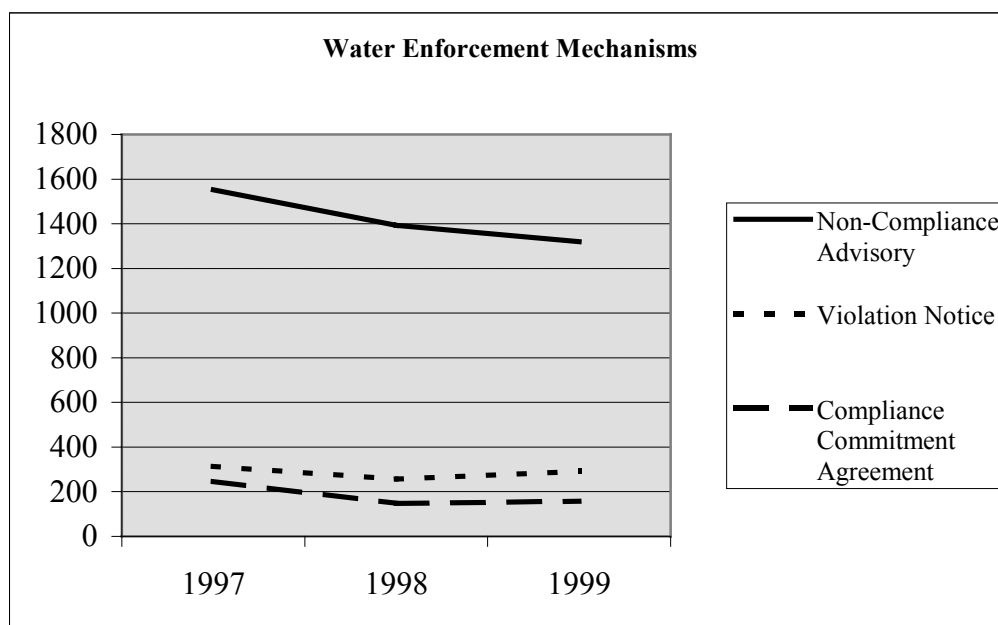
Air Program Compliance Activity



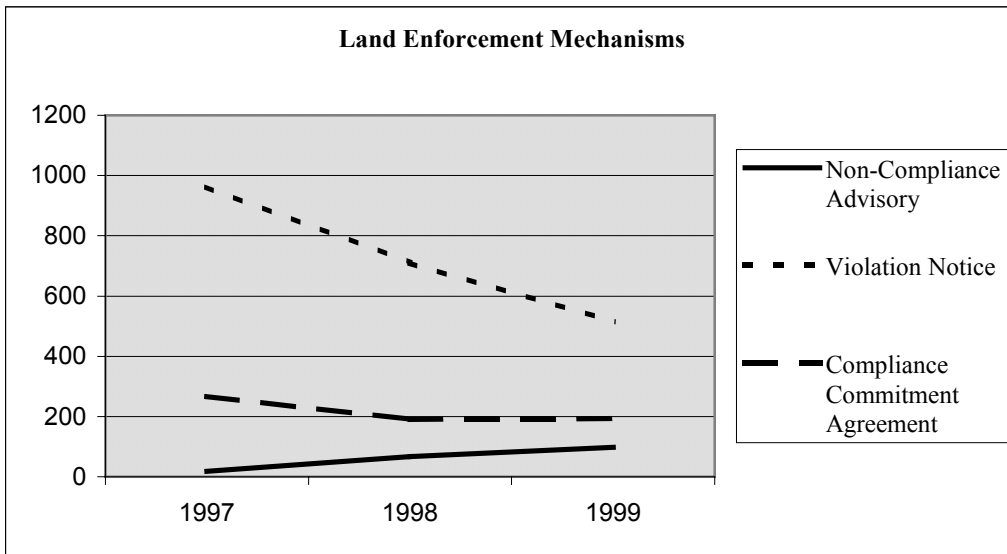
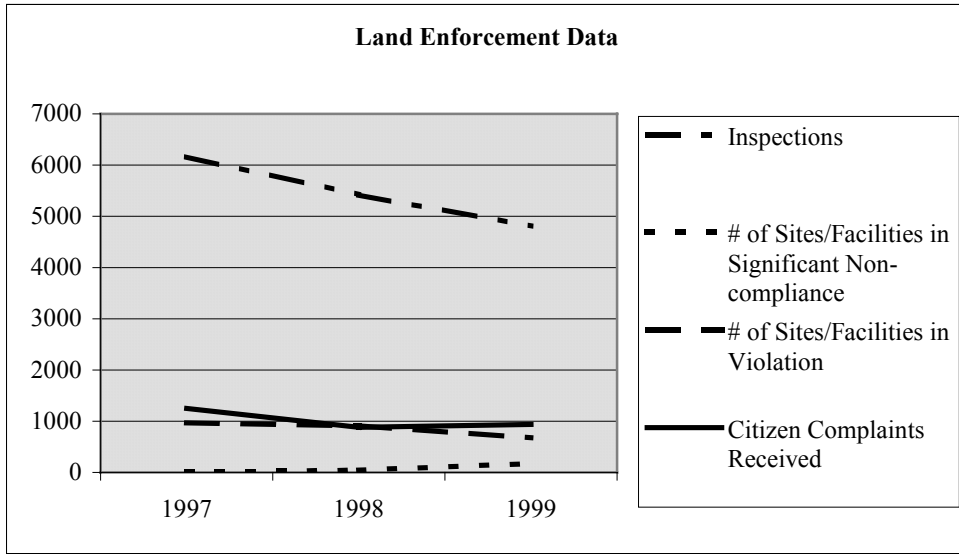
Water Program Compliance Activity



(Information on water program inspections was not provided.)



Land Program Compliance Data



In general, these charts suggest that the numbers of sites inspected by IEPA and found to be in violation have stayed about the same. However, although the Land Bureau's inspections have decreased significantly, they have been accompanied by a corresponding decrease in violation notices issued. On the other hand, as the Air Bureau's Compliance Commitment Agreements have decreased, its non-compliance advisories have increased.

Appendix B: Indiana Department of Environmental Management

Information in this case study is current as of March 2001.

B.1 Agency Overview

Mission

The Indiana Department of Environmental Management's (IDEM; <http://www.in.gov/idem/>) states that its mission is to “better protect the environment and serve the public by basing environmental decision-making on quality, scientific data through a transparent process that shares environmental information with the public and reduces regulatory burden.”⁹⁷

Internal organization

IDEM contains three media offices—the Offices of Water Quality, Air Quality, and Land Quality—plus a multi-media Office of Pollution Prevention and Technical Assistance and the Office of Planning and Assessment. Other offices relevant to compliance activities include IDEM's three regional offices, the Office of Enforcement, the Office of Legal Counsel, and the Office of Criminal Investigations. The functions of these offices are discussed below.

IDEM is governed by Title 13 of the Indiana Code (IC), and several titles of the Indiana Administrative Code (IAC). The administrative code pertains mainly to the powers and duties of the Boards (below), as well as hearings run by the Office of Environmental Adjudication.

Boards

The power to promulgate formal regulations is given by statute to five Boards: the Water Pollution Control Board (IC 13-18-1, 327 IAC), Air Pollution Control Board (IC 13-17-2, 326 IAC), Underground Storage Tank Financial Assurance Board (IC 13-23-11, 328 IAC), Clean Manufacturing Technology Board (IC 13-27.5-1), and Solid Waste Management Board. (IC 13-19-2, 329 IAC). The Boards, established under IC 13-14, are each composed of 11 members appointed by the Governor, a technical secretary, and a legal counsel. In general, the Boards adopt the environmental rules written by their analogous Offices. While the Boards have authority to suggest amendments of rules prior to adoption, they rarely do so.

Recent institutional changes

The Office of Planning and Assessment was recently created to coordinate a number of agency planning activities and conduct analysis to inform decision-making by agency management (see

⁹⁷ IDEM Website 3/2001.

below). IDEM has not had any major reorganization or funding variations within the past five years.

B.2 Planning

Goals and goal-setting

Indiana is a NEPPS participant, and IDEM's biennial Environmental Performance Partnership Agreement (EnPPA) with U.S. EPA Region V effectively serves as the agency's strategic plan because a prior strategic plan was completed three commissioners ago and is now outdated. The EnPPA covers all programs, regardless of funding source, although Region V's oversight role is limited to federally delegated programs.

The current EnPPA identifies (1) agency strategic and environmental *goals*, and (2) two sets of *priorities*. IDEM's priorities are the means whereby the agency will move towards achieving the larger strategic and environmental goals, and include both agency-wide priorities and the office priorities.

Under IDEM's strategic and environmental goals, environmental objectives are enumerated in many cases. These objectives are specific that is, specific and measurable pollution reduction and environmental quality targets. In other cases, the objectives are strategic and related to processes or practices in IDEM or the regulated community; in many cases these strategic objectives are far less measurable. IDEM has an environmental goal corresponding to each major medium: air, water, and land.

The office priorities contain the specific deliverables and commitments of the core regulatory programs; in almost all cases, they are regulatory process or activity-count metrics. However, there is little correspondence between the office priorities, which are largely focused on core regulatory functions, and the agency-wide priorities. The draft agency-wide priorities for 2001–2003 make providing quality environmental services an agency-wide priority, the first time that core regulatory functions (corresponding to media office priorities) have been identified as an agency-wide priority.

Strategic implementation

Strategic implementation refers to the process for translating overall agency goals into workplans and resources. Effective strategic implementation requires a strong element of adaptive management—that is, the use of measurement and monitoring results to evaluate the effectiveness of strategies and adjust approaches.

Because IDEM's EnPPA effectively functions as the agency's strategic plan, its goals and deliverables for each media office are tightly tied to federal program commitments—a necessity for meaningful strategic implementation planning. As noted above, however, there has been little correspondence between these media office deliverables and the agency-wide priorities or goals. The inclusion of core regulatory functions in the draft 2001–2003 agency-wide priorities may be one step towards such integration. The apparent primacy of office priorities, however, implies that IDEM has remained essentially focused on core regulatory functions.

A new mechanism for agency-wide coordination of compliance assurance activity is IDEM's Compliance/Enforcement Team (CET). The CET is composed of compliance branch chiefs (i.e., compliance managers within the major media offices) as well as the enforcement office. In

general, the CET is charged with setting overall agency compliance priorities on a biennial basis. In so doing, it will also address issues of consistency, measurement, and integrated use of compliance tools.

The CET will be supported in this by IDEM's new Office of Planning and Assessment (OPA), which will solicit compliance priority nominations from the media programs and provide supporting analysis using environmental and compliance data. At the time of the research, the CET was in the process of soliciting nominations for compliance priorities from IDEM's media offices. In concept, the CET is clearly a significant contribution to integrated compliance assurance practice within IDEM. However, because the CET is a new mechanism, its effectiveness cannot be evaluated at this time. OPA also has responsibility for agency-wide planning activities, and is the lead/coordinating office for drafting the Environmental Performance Partnership Agreement (EnPPA) with Region V.

Although strategic implementation implies the ability to target resources to goals, IDEM until now has *not* yet utilized the resource flexibility theoretically available under its multi-media Performance Partnership Grant (PPG). Media funds that are derived from fees cannot generally be employed across media, although the multi-media Office of Pollution Prevention and Technical Assistance can occasionally draw on these media-specific resources. IDEM makes limited use of internal transfers of agency personnel. In general, IDEM seems to exhibit levels of resistance to resource-shifting which, while significant, are typical of other state environmental agencies.

B.3 Data Performance, Measurement and Monitoring

Ambient environmental and emissions monitoring

IDEM's ambient environmental monitoring programs are overviewed in its annual *State of the Environment* report. The data on surface water monitoring is particularly detailed; in principle, lakes and streams are assessed on a five-year cycle. However, as of 1999, 55 percent of the state's total stream miles have been assessed for aquatic life support and 23 percent assessed for recreational use. Air toxics are monitored by four permanent stations in the northwest part of the state. Additional monitoring is being conducted as part of an ongoing statewide exposure study, part of IDEM's agency-wide priority for protecting children's environmental health. IDEM is also gathering two-year background benchmark data and six-month exposure data for specific neighborhoods thought to be at highest risk in four urban areas throughout the state.

Environmental and compliance data systems

IDEM has developed an agency-wide enforcement tracking database, METS (Multimedia Enforcement Tracking System). A database to track confidential compliance assistance efforts under CTAP was being deployed at the time of this research. In addition, some of IDEM's media offices and sections have developed their own databases. For example, the Drinking Water Branch has a dedicated compliance tracking database with automated compliance determination functions based on self-reported data. The capabilities and sophistication vary significantly by office and section. The current EnPPA commits IDEM to the process of developing an Agency Enterprise Data System, an effort to "bring all agency databases into one multi-media system."

In general, IDEM does not use EPA databases for compliance evaluation purposes. As a NEPPS state, IDEM reports the national Core Performance Measures (CPMs) to EPA.

Goal measurement

IDEM publishes an *Annual Report* in addition to its annual *State of the Environment* report. The State of the Environment report focuses on ambient environmental quality and pollutant emissions. While it often reports trends over time and compares environmental quality to regulatory standards, the report generally does not compare the environmental data to agency goals. The *Annual Report* does explain agency accomplishments for agency-wide priorities and for the work of the major offices. However, it does not explicitly compare achievements to targets.

IDEM also provides biannual progress reports to EPA regarding deliverables and targets enumerated in its EnPPA. They set forth primarily activity counts or process milestones.

On-time permitting is a significant priority for IDEM. Since 1994, IDEM has been under statutory mandate to issue on-time permits. Failure by IDEM to issue a permit within the allowable time-frame entitles the applicant either to seek a refund of permit fees or to write their own permit for which IDEM must pay any consultant fees. In this situation, the law places the burden of proof on IDEM as to why the permit is not acceptable. IDEM has had a “No-late Permits Policy” since 1997, automatically refunding fees on any late permit. Because of its statutory mandate and the no-late-permit policy, IDEM tracks permit backlogs carefully. The agency maintains a permits and approvals section of its website, which provides a single point of access to permitting information and activity for all media. The agency tracks permit backlogs via this site, which also provides access to the texts of permits.

Overall, IDEM exhibits superior command of environmental and regulatory data, and it has made such data easily accessible to the public (see public participation, below.) However, the data are not—at least publicly—presented for comparison with agency goals in a systematic way.

B.4 Compliance Tools and Process

Permits

See discussion above concerning IDEM’s statutory mandates regarding on-time permitting and the agency’s permit policy.

Inspections

IDEM’s EnPPA does contain inspection goals for each of the core regulatory programs. While the agency does field multimedia inspection teams for large facilities, single-inspector visits remain essentially single-media, especially for small businesses. Inspectors are trained to identify pollution prevention opportunities; however, inspectors’ first function is understood to be identification of violations and their severity. Post-inspection, a decision may be made to resolve non-serious violations via informal administrative enforcement (see below).

Civil enforcement tools

IDEM defines each of its basic enforcement tools as follows:⁹⁸

- **Notice of Violation-** A Notice of Violation (NOV) informs the respondent that IDEM believes violations of environmental laws or regulations have occurred. The respondent (violator) is invited to attend a conference to discuss violations or solutions.
- **Agreed Order** - By statute, the respondent has a 60-day settlement period, after receiving an NOV to enter into an Agreed Order with IDEM. Agreed Orders contain steps the Respondent must take to comply with the law. In most cases, Agreed Orders include a fine for past violations and stipulated penalties for failure to complete future compliance steps. Agreed Orders will not necessarily require a respondent to admit that a violation of law occurred. Fines may be lessened if the respondent can demonstrate that mitigating circumstances existed.
- **Commissioner's Order** - This unilateral order requires specific action to correct a violation and/or pay a fine. Commissioner's Orders are issued when a Notice of Violation is not settled by Agreed Order and may include orders to install pollution prevention technology, orders to install control equipment, orders to monitor and keep records, orders to remediate contamination, and orders to comply.
- **Emergency Order** - An Emergency Order is a formal enforcement action that may be issued by IDEM (or other state agency) if an emergency exists or if a statute authorizes the agency to issue a temporary order to take immediate action to cease activities causing violations where human and/or environmental health is threatened. Emergency Orders expire after 90 days. A party affected by the Emergency Order may request a hearing under IC 4-21.5-4-4 by submitting a written request to the Office of Environmental Adjudication.
- **Judicial Order-** Any Order issued by a court of record, such as a Superior Court or Circuit Court but not including orders issued by an administrative court such as the Office of Environmental Adjudication.

Enforcement resources and jurisdiction. IDEM's Office of Enforcement employees, 32 case managers, and supervisors work with the Office of Legal Counsel's five full-time enforcement attorneys to coordinate all enforcement action within the agency. All court enforcement of IDEM orders and emergency enforcement actions, and all other court proceedings involving IDEM are handled by the Attorney General's Office.

The Office of Criminal Investigations, which is housed within Legal Affairs but is separate from the Office of Enforcement, has referred a total of 19 criminal cases to local county prosecutors. In addition, the U.S. Attorney has filed two cases in federal court.

Administrative Enforcement Process (IC 13-30). Once a violation is noted by personnel in the Offices of Air Quality, Water Quality, or Land Quality, the nature of the violation is evaluated by office managers. If the violation is serious, it is immediately referred to the Office of Enforcement. If the violation is not serious, the individual media offices will work with the violator to correct the violation through an informal agreement between IDEM and the violator. However, if the non-serious violation remains uncorrected, a referral is made to the Office of

⁹⁸ Definitions from IDEM website; see <http://www.state.in.us/idem/oe/faq.html>. Visited 6/11/01

Enforcement.⁹⁹ The formal and informal referral procedures followed by the Office of Enforcement are discussed below:

- **Informal Actions.** When an alleged violator is referred to the Office of Enforcement (OE), that Office may proceed in one of two ways. Informal actions are initiated when the referral is for a minor violation. For minor violations that are discovered and immediately corrected, IDEM will document the occurrence. For minor violations which are not immediately corrected, warning letters, warnings of non-compliance, or violation letters are issued to notify the inspected facility of any minor violations found by IDEM during a record review or facility inspection.¹⁰⁰ If the minor violation is not corrected within 90 days, IDEM may assess civil penalties of up to \$500. IC 13-30-7.
- **Formal Actions.** Formal actions are initiated with a Notice of Violation (NOV), which is issued to a facility or a person when a record review or inspection finds significant or serious violations of environmental laws under IC 13-30-3-3. The NOV informs the respondent of violations that IDEM believes were present at the time of the record review or inspection and offers the alleged violator an opportunity to enter into an *Agreed Order*, which must be done the within 60 days of receiving the NOV, unless IDEM grants an extension. IC 13-30-3-3(a), (b).

Generally, an Agreed Order will include a civil penalty in addition to any required corrective action. IC 13-30-3-3, -4. Upon the respondent's compliance with all terms of the Agreed Order, the Office of Enforcement will issue the facility or person a letter stating that the facility has been returned to compliance for purposes of that particular enforcement action.¹⁰¹

If an Agreed Order is not entered into within 60 days of issuance of the NOV, IDEM will issue a *Commissioner's Order*, which is an unilateral order detailing the alleged violations, the specific actions which must be taken to correct the violation, and a brief description of the procedure for requesting judicial review under IC 4-21.5. IC 13-30-3-4. If the alleged violator does not comply with either an Agreed Order or Commissioner's Order, the case is referred to the Attorney General's office for further action. IC 4-21.5-6-1. In 2000, IDEM referred more than 20 such matters to the Attorney General's office.

- **Rapid Enforcement Response.** IDEM has also developed an operating procedure for Rapid Enforcement Response (RER), to be used in high-profile and high-hazard situations. RER accelerates the timetable for formal enforcement actions; under RER, NOV issuance should occur within 2 weeks or less.

Fines and penalties under formal administrative enforcement. Although IC 13-30-4-1 authorizes fines up to \$25,000 per day per violation, most fines assessed by IDEM for formal enforcement actions are much less. The amount of the fine depends on the magnitude of the violation, the potential harm to human health and the environment, the extent of deviation from the rule or statute, the economic benefit gained by the violator by not complying, and the violator's efforts to achieve compliance. As noted above, civil penalties of up to \$500 may be assessed for informal actions.

⁹⁹ (See <http://www.state.in.us/idem/oe/faq.html>, visited 7/20/01)

¹⁰⁰ (See <http://www.state.in.us/idem/oe/types.html>, visited 6/1/01).

¹⁰¹ (See <http://www.state.in.us/idem/oe/faq.html>, visited 7/20/01).

Many fines today are partially offset through the use of Supplemental Environmental Projects (SEPs). IDEM has established its SEP policy using a non-rule policy document. SEPs allow violators to offset a portion of their penalty by performing projects which remediate adverse health and environmental consequences of pollution, and they provide opportunities to improve the environment beyond the requirements specified by law. The Office of Enforcement, in conjunction with the media offices, oversees completion of SEPs. If a SEP fails, the original penalty assessed prior to the SEP abatement will be assessed. IDEM has a total of 169 SEPs over the past five years.

Appeals of IDEM administrative decisions. IC 4-21.5-3-25 and IC 4-21.5-3-26 govern the conduct of any hearing held by an Environmental Law Judge in the Office of Environmental Adjudication. Adjudicatory proceedings before an Environmental Law Judge (ELJ) are initiated when a petition for administrative review of an NOV or Commissioner's Order is filed with the Office of Environmental Adjudication. 315 IAC 1-3-2. During the hearing, the ELJ has the ultimate authority over implementation of air, water, environmental management, solid waste, hazardous waste, and financial assurance board laws, as well as the rules adopted by the various Boards. 315 IAC 1-3-3. The ELJ's decision is final under IC 4-21.5, and a petition for judicial review must then be filed to seek an appeal.

Within 30 days of the date that notice of the ELJ's decision is served, either party may request judicial review in civil court. IC 4-21.5-5; 315 IAC 1-3-14.

Emergency Situations. Under IC 13-14-10, whenever the Commissioner of IDEM determines, in consultation with the Commissioner of the Department of Health, that contamination to the environment constitutes a clear and present danger to public health or safety, the Commissioner of IDEM may request that the Governor declare an emergency. IC 13-14-10-1. IDEM may then issue an Emergency Order that, whenever practicable, should be in writing. The Emergency Order will require the reduction or discontinuation of activities causing the violation. IC 13-14-10-1. A party affected by the Emergency Order may request a hearing under IC 4-21.5-4-4 by submitting a written request to the Office of Environmental Adjudication.

IDEM also has the option of suing the alleged polluter. IC 13-14-10-2. If the source of the pollution cannot be located or the polluter refuses to take prompt and effective action to abate or remedy the pollution, IDEM may order a clean-up and provide assistance, including the direct purchase of supplies, materials, services, and equipment to abate or remedy the emergency situation. IC 13-14-10-3. Following this action, IDEM may sue the polluter to recover costs. IC 13-14-10-3.

Judicial Actions. Under IC 13-30-1, any party—including IDEM (represented by the Attorney General's office) and citizens of Indiana—may bring an action in civil court for declaratory and equitable relief in the name of the state. If an action is brought by a party other than IDEM, the party must notify IDEM. IDEM then has 90 days to commence an administrative proceeding, a civil action, or take steps to institute a criminal prosecution. If IDEM does take action, the original suit for declaratory and equitable relief will be dismissed. IC 13-30-1-2. If IDEM chooses not take any action, the suit may move forward. A court may assess civil penalties of up to \$25,000 per day per violation for up to three years. IC 13-30-4-1; IC 13-14-6.

IDEM may also pursue enforcement in court against any person who is out of compliance with an Agreed Order or Commissioner's Order. IC 4-21.5-6-1. A Final Order of the Board that results from an administrative hearing is also subject to review in civil court at the request of a party. IC 4-21.5-5; 315 IAC 1-3-14. In addition, any person who is adversely affected by an agency action may have standing to obtain judicial review of an agency action. IC 4-21.5-5-1. In all of these situations, the Attorney General's office will represent IDEM.

Under IC 13-30-1, any citizen of Indiana may sue to enforce environmental laws if an administrative action is not pending. However, a citizen may only proceed in court once all administrative remedies pursuant to IC 4-21.5-4 have been exhausted. IC 4-21.5-5-2.

Compliance and beyond-compliance incentives

- **Audit policy.** Indiana has issued several Nonrule Policy Documents, including one entitled “Self-Disclosure and Environmental Audit Policy,” which only applies to settlement negotiations for administrative enforcement actions. The policy allows for a 75 percent reduction in gravity-based penalties for violations of federal and state environmental requirements where a party voluntarily discovers, discloses, corrects, and prevents any further violations of federal and state environmental requirements. The policy also allows IDEM to not recommend criminal prosecution. Finally, it states that IDEM will not use an environmental audit report disclosed under this policy to initiate a civil or criminal investigation of the entity.¹⁰²
- **100 Percent Club.** OPPTA is responsible for administering IDEM's 100 Percent Club. The 100 Percent Club allows businesses and municipalities who (1) either have an EMS that is ISO 14001 certified (or the equivalent) or (2) have met past performance requirements to petition IDEM for approval of cost-saving measures and various types of public recognition. For example, the 100 Percent Club businesses could receive rebates of up to ten percent of their annual fees; can reduce record-keeping, reporting and/or sampling requirements; or can receive public recognition for achieving full environmental compliance.

Members of the 100 Percent Club who have not only achieved full compliance, but have gone above and beyond their environmental requirements, are also eligible to become 100 Percent Club Environmental Leaders. Leaders may demonstrate their past performance in any number of ways, including receipt of the Governor’s Award for Excellence in Pollution Prevention for the past six years or in Recycling for the past 10 years, or implementation of a successful P2 project that has reduced pollution by 20 percent over a two-year period or by 15 percent from the previous year.

Indiana is currently in the process of replacing the 100 Percent Club with U.S. EPA’s Achievement Track Program, which differs from the 100 Percent Club in a number of ways. For example, participants under the Achievement Track Program must demonstrate that they meet *both* EMS and past performance requirements. The two programs also differ in their requirements for future performance commitments. The Achievement Track Program requires facilities to make such commitments at the time of application, whereas participants in the 100 Percent Club generally reapply annually, and their performance improvements during the previous year acts as the basis for IDEM to approve renewal of their membership.

- **Recognition programs.** OPPTA administers the annual Governor's Award for Excellence in Pollution Prevention, as well as many other award and recognition programs for a broad spectrum of organizations that operate above and beyond environmental regulations. IDEM has also developed Five-Star recognition programs for dry cleaners, childcare facilities, and vehicle maintenance facilities. The programs rank participants on a scale of one to five stars. Each star is earned by meeting specific

¹⁰² See <http://www.state.in.us/idem/oe/nrp/self.html>, visited 7/20/01.

performance criteria. Across the various Five-Star programs, approximately 170 Indiana businesses are participating.

Compliance assistance

The Office of Pollution Prevention and Technical Assistance (OPPTA) is IDEM's central compliance assistance office. OPPTA manages educational outreach activities and offers assistance to businesses, local government entities, and the general public. IC 13-27-2. OPPTA also contains the Office of Voluntary Compliance (OVC), which administers Indiana's Small Business Assistance Program. The Program is responsible for assisting regulated entities in achieving compliance as well as promoting cooperation between IDEM and regulated entities. IC 13-28-3-2. To that end, the OVC utilizes an Ombudsman to assist the regulated community with specific regulatory or permit matters pending with the department. IC 13-28-3-2.

The OVC is the main component of IDEM's confidential technical assistance program (CTAP). IC 13-28-3. In order to provide compliance by the regulated community, CTAP is responsible for conducting activities to improve regulatory compliance, promote cooperation, and assist regulated entities. The staff of CTAP are bound by statute to strict confidentiality and may not reveal identifying information to the regulatory staff of IDEM except when there is a clear and immediate danger to the public health or environment. IC 13-28-3-4. This exception has never been used. CTAP's helpline function enjoys an unusually heavy volume of calls from businesses compared to similar programs in the other four states. This volume seems attributable in large part to the strict confidentiality guarantees.

CTAP has also developed several Integrated Education Programs that, among other things, distribute education materials regarding environmental requirements, compliance methods, voluntary environmental audits, pollution control technologies, and other compliance issues. An example of integrated education is the dry cleaner program, which combines elements of leadership recognition through the Five-Star program and technical assistance. In addition, CTAP provides public outreach and training sessions, as well as education sessions conducted in cooperation with representatives of the business and municipal communities regarding existing and future state and federal environmental requirements. Finally, CTAP provides technical assistance concerning pollution control techniques to local and state governmental entities and businesses.

The Small Business Stationery Source Technical Assistance Program provides education, training, and information on permit and compliance requirements of the Clean Air Act. IC 13-30-28-5. In addition, the program has a Small Business Ombudsman, and who is responsible for assisting small businesses, which apply for assistance with specific regulatory matters pending before IDEM and permit applications. IC 13-28-5-4.

IDEM has not implemented a formal system for integrating traditional enforcement activities and compliance assistance, although various approaches are under discussion. Such integration is one objective of the CET. CTAP's confidentiality mandate places certain restrictions on this integration. CTAP does coordinate outreach closely with rule-making activity, particularly in the Air program where new rules are most concentrated.

Finally, CTAPs' responsibilities include review of regulations-in-development for the purposes of P2 integration. This effort has not been successful in the past because CTAP's review took place so late in the rulemaking process (for proposed rule), and major changes were unlikely. At the time of the research, IDEM's media offices and OPPTA are involved in a P2 integration initiative separate and distinct from any rulemaking. Using grant money and a consultant to facilitate cross-

office meetings, a list of ten P2 projects were developed for immediate implementation. The focus for this effort was on integrating P2 into office initiatives that were already in development but not so advanced that changes would be difficult.

B.5 Informing and Interacting with the Public

Public access to environmental and regulatory data

As mentioned above, IDEM publishes an annual *State of the Environment* report focused on ambient environmental quality and pollutant emissions. The raw data behind the report are generally available through the IDEM website. IDEM has placed an unusual amount of regulatory and compliance data on its website. In most cases, facility lists, permit texts, permit status, and enforcement actions are web-accessible and often web-searchable. Overall, public access to IDEM environmental and regulatory data is superior. See the section above on Data, Performance Measurement and Monitoring concerning IDEM's permit website.

Public involvement

IDEM has developed its EnPPA, including the identification of agency-wide priorities, by using a public comment period, as well as stakeholder meetings. The Indiana legislature has established several standing councils and task forces, including the Compliance Advisory Panel that advises the agency on CTAP, and the Environmental Quality Service Council, which advises the Commissioner on policy decisions, reviews the mission and goals of IDEM, and evaluates the implementation of the mission. Both are appointed bodies composed of state legislators and stakeholder representatives.

IDEM's proposed rules, permit applications, and similar regulatory actions are subject to standard public notice and comment requirements. With resources from a U.S. EPA environmental justice grant, IDEM has developed *IDEM's Guide for Citizen Participation*, which provides a basic tutorial on public participation in the agency's core regulatory functions. However, there is little emphasis in this document on public involvement in agency planning.

IDEM has created a Pollution Complaint Clearinghouse for citizens to submit complaints made via phone, web, or regular mail. IDEM states that the purposes of the clearinghouse are to establish a management system for handling multimedia or multi-agency citizen complaints, to establish agency standards for responding to citizen complaints, and to provide a mechanism for evaluating trends in complaints and agency responsiveness. Periodic statistical summaries regarding types of complaints received, agency response time, and resolution of complaints are available on the clearinghouse website.¹⁰³

¹⁰³<http://www.in.gov/idem/pollutioncomplaints/>, 3/2001.

B.6 Financial and Human Resources

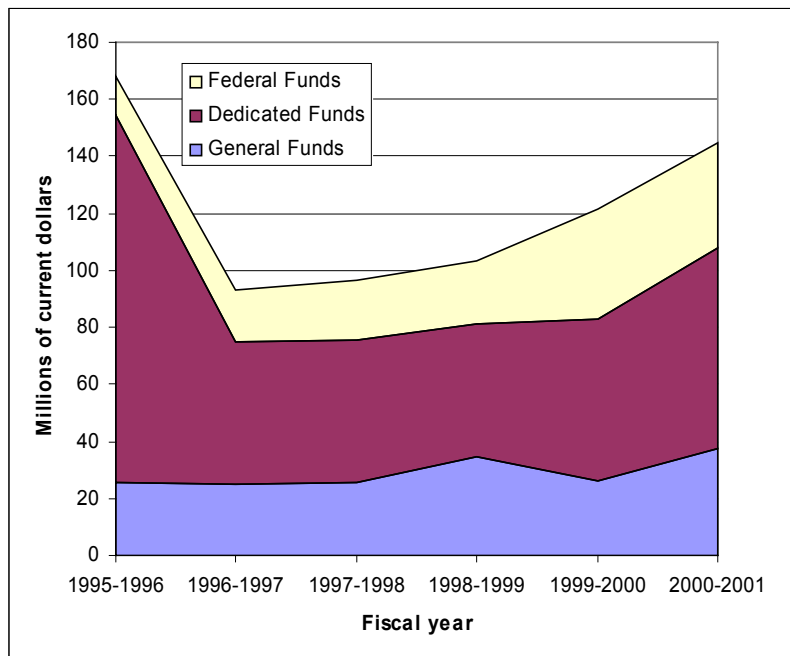
Budget

Like other state environmental agencies, IDEM is funded by a mix of state general appropriation (about 26 percent in FY 2001-2002); various federal funding sources (also about 26 percent in FY2001- 2002); and on various fees and dedicated funds (about 48 percent in FY 2001-2002).

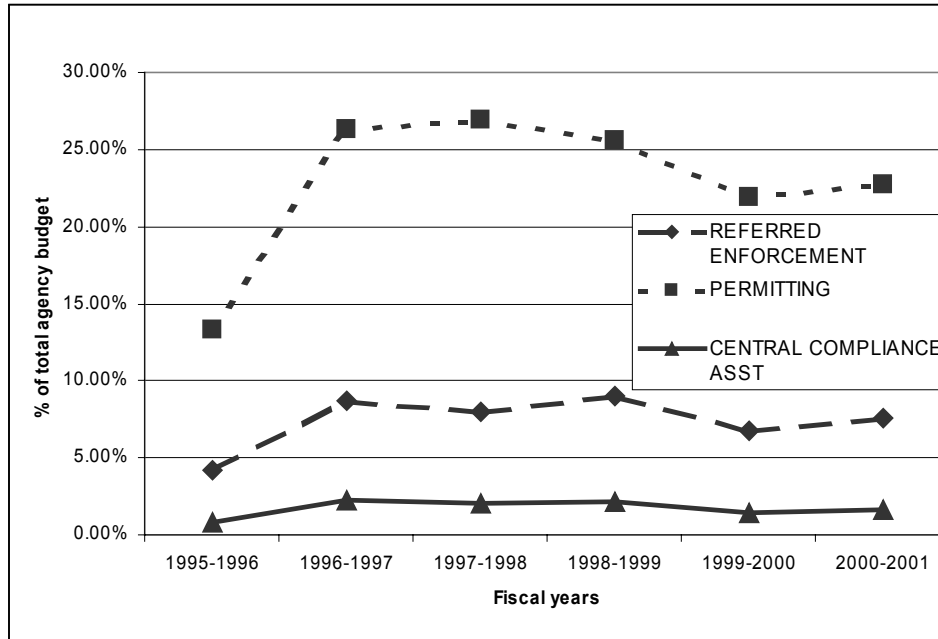
IDEM's dedicated funds can carry any unspent balance forward to the next fiscal year; these balances do not lapse back to the general fund. However, expenditures from these funds must be specifically authorized by the legislature as line-items.

In general, IDEM's total funding levels have been increasing moderately in current dollar terms and have been essentially stable in constant dollars since 1996. (See charts on the next page.) As the second chart indicates, IDEM has not drastically changed its allocation of resources for three key compliance-related functions: central enforcement, permitting, and central compliance assistance since 1996. This figure should be considered indicative of true resource allocations, but not exact because it depicts allocations *estimated* from budget line items. The following table provides a more detailed IDEM budget history since FY 1995-1996 because data in this section were obtained from Indiana's budget documents.

IDEM's Total Budget and Funding Source



IDEM's Estimated Allocation of Resources for Selected Compliance Functions



“Referred Enforcement” consists of budget lines for the Office of Legal Affairs and Enforcement, and the Office of Environmental Adjudication. “Permitting” consists of budget lines for Title V permitting and permitting in the Water, Solid Waste and Hazardous Waste areas. “Central Compliance Assistance” consists of budget lines for the Division of Pollution Prevention and Technical Assistance, the Voluntary Compliance Fund, the Innovative Technical Assistance Program, and the Clean Manufacturing Technology Board.

IDEM Budget History (current dollars)

	FY 1995-1996	FY 1996-1997	FY 1997-1998	FY 1998-1999	FY 1999-2000	FY 2000-2001
	Actual Expenditure	Actual Expenditure	Actual Expenditure	Actual Expenditure	Actual Expenditure	Estimated Expenditure
General Funds	25,612,683	25,265,145	25,589,595	34,560,153	26,360,084	37,460,319
Dedicated Funds	128,850,889	49,881,744	50,045,569	46,524,959	56,814,666	70,249,299
Federal Funds	13,876,589	18,136,716	20,675,373	22,286,395	38,365,205	37,335,720
Totals	168,340,161	93,283,605	96,310,537	103,371,507	121,539,955	145,045,338
Selected Programs						
Office of Legal Affairs and Enforcement						
<i>General Fund</i>	2,545,277	2,192,399	2,013,011	2,967,194	2,605,490	3,492,505
<i>Dedicated Funds</i>	727,811	972,738	1,032,077	682,226	599,061	797,195
<i>Federal Funds</i>	184,542	780,168	679,227	880,700	773,339	1,042,425
Division of Pollution Prevention/ Technical Assistance						
<i>General Fund</i>	1,246,038	1,334,589	1,176,439	1,392,880	899,845	1,586,278
Innovative Technical Assistance Program						

	FY 1995-1996	FY 1996-1997	FY 1997-1998	FY 1998-1999	FY 1999-2000	FY 2000-2001
	Actual Expenditure	Actual Expenditure	Actual Expenditure	Actual Expenditure	Actual Expenditure	Estimated Expenditure
<i>Federal Funds</i>	3,740	0	63,940	532	66,352	0
Voluntary Compliance Fund						
<i>Dedicated funds</i>	0	283,801	280,426	301,583	336,889	372,501
<i>Transferred Funds</i>	180,307	N/A	N/A	N/A	N/A	0
Permitting						
Title V Air Permit Program						
<i>Dedicated Funds</i>	5,110,794	8,426,364	8,389,208	8,109,958	8,653,277	9,960,501
Water Management-Permitting						
<i>General Fund</i>	3,146,612	1,840,599	2,174,622	2,301,392	2,483,334	2,497,802
<i>Dedicated Funds</i>	3,577,183	3,239,698	4,289,576	4,081,827	4,404,519	6,916,129
Solid Waste Management-Permitting						
<i>General Fund</i>	2,056,703	2,115,967	1,888,503	2,256,785	2,208,504	2,439,619
<i>Dedicated Funds</i>	2,589,004	2,458,569	2,689,408	2,677,157	2,619,883	2,894,052
Hazardous Waste Management-Permitting						
<i>General Fund</i>	1,735,720	2,134,716	2,069,375	2,532,418	2,235,016	2,760,435
<i>Dedicated Funds</i>	1,971,483	1,977,097	1,895,842	1,800,300	1,588,876	2,519,701
<i>Federal Funds</i>	2,253,990	2,324,593	2,527,351	2,727,277	2,406,992	2,972,396
Other Environmental Management						
Pollution Prevention and Safe Materials Institute*						
<i>General Fund</i>	339,375	N/A	N/A	N/A	N/A	N/A
Hazardous Waste Facility Site Approval Authority*						
<i>Dedicated Funds</i>	253,694	27,946	0	N/A	N/A	N/A
Clean Manufacturing Technology Board						
<i>General Fund</i>	N/A	452,500	500,000	500,000	475,000	475,000
Office of Environmental Adjudication						
<i>General fund</i>	216,075	243,784	262,437	279,164	304,720	329,512

*Hazardous Waste Facility Site Approval Authority not listed after 1998. Also, Pollution Prevention and Safe Materials Institute is not mentioned after 1996.

Staffing

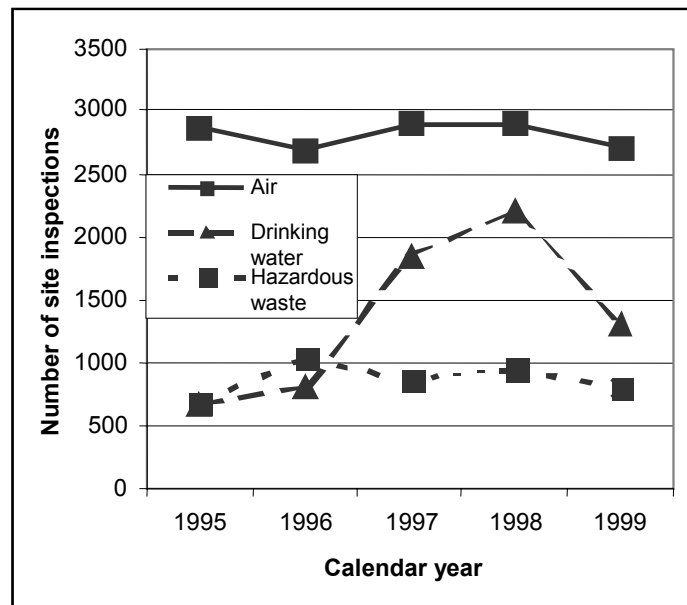
IDEM's staffing levels have been quite stable, but below the levels identified by a 1993–94 multi-stakeholder expert commission. The commission, headed by the Lt. Governor, concluded that a substantial staffing increase (approximately 30 percent) was needed to maintain core programs, thus far no increases have been authorized. Indiana NGOs interviewed for this study uniformly expressed concern regarding IDEM staffing levels, as well as the agency's ability to recruit and retain highly qualified staff.

B.7 Environmental and Compliance Performance

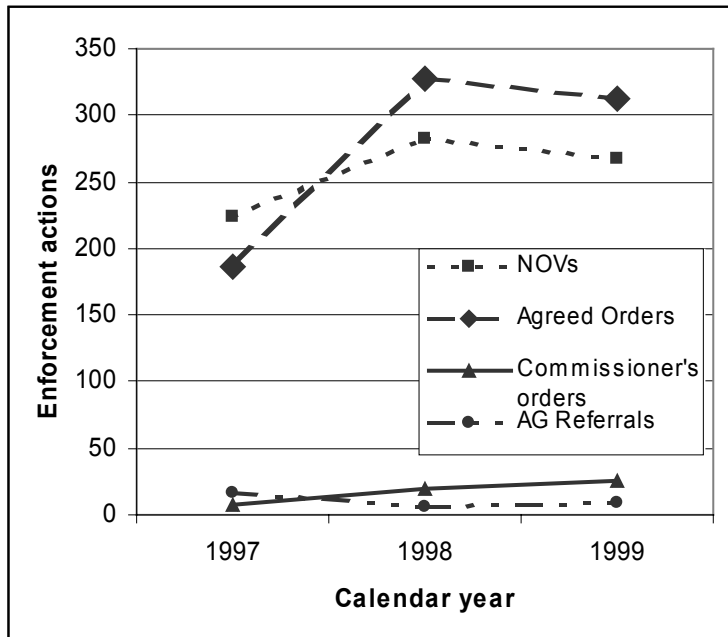
IDEM's traditional compliance and enforcement activities—inspections, compliance review, administrative and criminal enforcement—are detailed in the tables that follow in this section. The figures cannot, of course, reflect IDEM's *vigilance* in seeking out violations, nor the level of deterrence created by these activities. The tables and the first two summary graphs do, however, illustrate sustained levels of compliance activity over the past five or more years, indicating that IDEM has maintained roughly its existing resource commitment for the traditional enforcement actions.

The tables do not depict permit backlogs. The agency is currently running a significant backlog of NPDES permits (~100 permits in administrative extension), although IDEM is performing significantly above the national average for issuing Title V operating permits. In general, IDEM has made significant progress in eliminating the permit backlogs, which existed in the early 1990s. Data in this section is synthesized from IDEM's responses to the survey instruments of the *ECOS Enforcement and Compliance Project*.

IDEM Inspections (actual site visits)



IDEM Enforcement Actions for Air, Water and Hazardous Waste Programs



IDEM Air Inspection and Compliance Data

	CY 1995	CY 1996	CY 1997	CY 1998	CY 1999
Total Number of Sites/ Incidents/Facilities Regulated	2,140	3,906	3,989	4,176	4,248
Total Number of Inspections (physical visits to site)	2,866	2,693	2,905	2,902	2,704
Total Number of Evaluations/Assessments (eg DMR Reviews)	4,800	3,846	6,398	7,838	7,883
Total Number of Sites/Incidents/Facilities in Significant Non-compliance (according to EPA definition)	N/A	N/A	** 41 Sites 51 Incid.	** 65 Sites 79 Incid.	** 53 Sites 79 Incid.
Total Number of Sites/Incidents/Facilities in Violation (according to State definition)	343*	375*	593*	956	772
Citizen Complaints Received	449	441	374	417	458
Enforcement Mechanisms Used					
Warning Letters	N/A	N/A	N/A	159	111
Violation Letters	98*	93*	271*	633	530
Referrals to Enforcement	245	282	322	323	242

Data for programs within the Office of Air Management. * Indicates incomplete data; ** Numbers generated by the Office of Enforcement

IDEM Enforcement Mechanisms Used for Discovered Air Violations

Enforcement Mechanism:	CY 1995	CY 1996	CY 1997	CY 1998	CY 1999	Estimated percent of actions that end in compliance*
Warning of Non-Compliance	N/A	N/A	184	85	32	90%
Notice of Violation	N/A	N/A	87	131	145	N/A
Agreed Order	N/A	N/A	108	154	153	90%
Commissioner's Order	N/A	N/A	1	8	11	95%
Referrals to State Attorney General	N/A	N/A	6	1	4	80%
Referrals to EPA	N/A	N/A	0	0	0	N/A
Emergency Orders of the Commissioner	N/A	N/A	0	0	0	N/A
Judicial Orders of Consent Decrees	N/A	N/A	0	0	0	N/A

Data from Air Enforcement Section, Office of Enforcement

IDEM Penalties and Fines Collected for Air Violations

	CY 1995	CY 1996	CY 1997	CY 1998	CY 1999
Administrative	N/A	N/A	\$588,481	\$545,181	\$871,159
Civil	N/A	N/A	N/A	N/A	N/A
Supplemental Environmental Projects (SEPs)					
<i>\$ Penalty Offset</i>	N/A	N/A	\$146,290	\$434,986	\$929,941
<i>minimum SEP cost</i>			\$1,932,600	\$977,500	\$2,185,630

IDEM Air Enforcement Caseload

	CY 1995	CY 1996	CY 1997	CY 1998	CY 1999
New Cases Opened/Initiated	N/A	N/A	201	269	222
Cases Closed	N/A	N/A	256	258	169

IDEM Drinking Water Branch Inspection and Compliance Data

	CY 1995	CY 1996	CY 1997	CY 1998	CY 1999
Total Number of Sites/Incidents/Facilities Regulated	4,744	4,689	4,337	4,287	4,228
Total Number of Inspections (physical visits to site)	679	811	1,852	2,206	1,321
Total Number of Evaluations/Assessments (eg DMR Reviews)	10,944	10,910	11,494	11,461	10,856
Total Number of Sites/Incidents/Facilities in Significant Non-compliance (according to EPA definition)	N/A	N/A	89	44	103
Total Number of Sites/Incidents/Facilities in Violation (according to State definition)	1,947	2,399	2,020	1,824	1,906
Citizen Complaints Received	N/A	N/A	N/A	N/A	35

**IDEM Enforcement Mechanisms Used for Discovered
Drinking Water Violations**

	CY 1995	CY 1996	CY 1997	CY 1998	CY 1999	Percentage of enforcement mechanisms resulting in compliance
Courtesy reminder letter	5,000	5,000	5,000	5,000	5,000	50-60%
Monitoring/Reporting Violation	N/A	2,088	1,773	1,555	1,687	70%
Repeat/confirmation Violation	22	13	12	19	66	80%
Insufficient sample violation	93	64	28	28	51	90%
Public Notice Violation	N/A	2,376	2,020	1,824	1,967	50-75% (M/R) 95% (MCL)
MCL/Treatment Technique/ Action Level Violation	N/A	288	247	269	280	50-75%
Warning of Non- Compliance (WONC)	203	175	228	259	191	50%
Phone Calls	500	500	500	500	500	60%
Deficiency Letters	N/A	N/A	7	27	31	85%
WONC	N/A	N/A	2	23	24	95%

Drinking Water Program Compliance Rates

Program Type	Compliance Rate	Calculation
Safe Drinking Water rules and regulation on monitoring and reporting	85% for Community Water System; 75% on Non-transient Non-community Water System; 60% on Transient Community Water System	Divide the number of facilities found to be in compliance at the end of each monitoring period by number of facilities
Safe Drinking Water rules and regulation on MCL/Treatment Technique/Action Level	Over 95%	Divide the number of facilities found to be in compliance at the end of each monitoring period by number of facilities.

IDEM Hazardous Waste Inspection and Compliance Data

	CY 1995	CY 1996	CY 1997	CY 1998	CY 1999
Total Number of Sites/ Incidents/Facilities Regulated	N/A	N/A	N/A	N/A	5366**
Total Number of Inspections (physical visits to site)	694	1,042	873	950	815
Total Number of Evaluations/Assessments (eg DMR Reviews)	139	133	148	22	5
Total Number of Sites/Incidents/Facilities in Significant Non-compliance (according to EPA definition)	N/A	N/A	35	19	27
Total Number of Sites/Incidents/Facilities in Violation (according to State definition)	243	295	330	339	312
Citizen Complaints Received	231	293	241	230	149

**As of Nov. 30,2000: Small Quantity Generation 4751; Large Quantity Generator 548; Transfer, Storage and Disposal facility: 67

IDEM Enforcement Mechanisms Used for Discovered Hazardous Waste Violations

	CY 1995	CY 1996	CY 1997	CY 1998	CY 1999
Informal Compliance	112	165	165	260	222
Violation Letter	94	64	31	64	39
Notice of Violation	32	18	55	51	37
Agreed Order	49	26	30	48	48
Commissioner's Order	1	1	2	5	5
Referral to EPA	2	2	2	1	1
Referral to Attorney General	8	5	5	3	2

IDEM Penalties/Fines Collected for Hazardous Waste Violations

	CY 1995	CY 1996	CY 1997	CY 1998	CY 1999
Administrative	N/A	N/A	\$297,019	\$524,263	\$808,202
Civil	N/A	N/A	N/A	N/A	N/A
Supplemental Environmental Projects (SEPs)					
<i>Number</i>	N/A	3	8	17	9
<i>Amount Offset</i>		\$ 284,474	\$158,797	\$464,476	\$829,965
<i>SEP Amount</i>		\$ 982,465	\$326,652	\$1,452,349	\$1,879,945

Hazardous Waste Enforcement Caseload

	CY 1995	CY 1996	CY 1997	CY 1998	CY 1999
New Cases Opened/Initiated	Compliance: 97	Compliance: 145	Compliance: 247	Compliance: N/A	Compliance: N/A
	Enforcement: 117	Enforcement: 92	Enforcement: 95	Enforcement: 99	Enforcement: 79
Cases Closed /Resolved	Compliance: 87	Compliance: 115	Compliance: 187	Compliance: 287	Compliance: 224
	Enforcement: 179	Enforcement: 110	Enforcement: 70	Enforcement: 130	Enforcement: 91

IDEM Enforcement Mechanisms Used for Discovered Surface and Groundwater Violations

Enforcement Mechanism:	CY 1995	CY 1996	CY 1997	CY 1998	CY 1999	Estimated percentage of actions ending in compliance*
Warning of Non-Compliance	35	64	53	95	150	70%
Notice of Violation	65	56	82	101	86	N/A
Agreed Order	67	55	49	126	112	90%
Commissioner's Order	4	4	4	6	10	25%
Referrals to State Attorney General	1	3	6	2	3	N/A
Referrals to EPA	1	1	0	0	3	N/A
Emergency Orders of the Commissioner	0	0	1	3	0	50%
Judicial Orders of Consent Decrees	2	1	3	1	1	80%

IDEM Penalties/Fines Collected for Water Violations

	CY 1995	CY 1996	CY 1997	CY 1998	CY 1999
Administrative	\$561,869	\$350,493	\$308,390	\$545,181	\$871,159
Civil	\$44,785	\$1,500,000	\$128,300	\$20,000	\$0
Supplemental Environmental Projects (SEPs)					
<i>\$ Penalty Offset</i>	\$23,673	\$83,504	\$47,869	\$195,520	\$448,078
<i>minimum SEP cost</i>	\$47,346	\$320,589	\$102,572	\$1,417,098	\$1,288,606

IDEM's Water Enforcement Caseload

	CY 1995	CY 1996	CY 1997	CY 1998	CY 1999
New Cases Opened/Initiated	171	158	173	128	90
Cases Closed	80	123	263	168	124

IDEM's Criminal Case Outcomes

	CY 1995	CY 1996	CY 1997	CY 1998	CY 1999
Fines	\$2,753	\$25,349	\$14,887	\$80,034	\$13,239
Number of Defendants	9	3	3	5	8
Years sentenced	17	6.5	5.5	10	6.5
Years served	1	1.5	4	4	0

IDEM's Criminal Investigation Caseload

	CY 1995	CY 1996	CY 1997	CY 1998	CY 1999
New Cases Opened/Initiated	45	34	27	28	27
Cases Closed only	52	32	31	34	24

Appendix C: Michigan Department of Environmental Quality

Information in this case study is current as of February 2002.

C.1 Agency Overview

Mission

The Michigan Department of Environmental Quality (DEQ; <http://www.michigan.gov/deq>) states that its mission is “to drive improvements in environmental quality for the protection of public health and natural resources to benefit current and future generations. This will be accomplished through effective administration of agency programs, providing for the use of innovative strategies, while helping to foster a strong and sustainable economy.”¹⁰⁴

DEQ has primary authority over the administration of the primary environmental protection statute in Michigan, the Natural Resources and Environmental Protection Act (NREPA; Public Act 451 of 1994.)

Internal organization

DEQ consists of 11 divisions and eight offices:

- Core regulatory functions are exercised via seven media program divisions: (1) the air quality, (2) drinking water and radiological protection, (3) environmental response (Superfund and brownfield redevelopment), (4) storage tank, (5) surface water quality, (6) waste management, and (7) land and water management. In addition to carrying out core regulatory functions such as permitting, inspection and compliance monitoring, and preliminary enforcement, these seven divisions also provide compliance assistance for specific facilities.
- The geological survey division has geological survey and information dissemination responsibilities, as well as responsibility for permitting of energy and mineral extraction.
- The Environmental Assistance Division (EAD) has responsibility for DEQ’s voluntary and leadership programs, pollution prevention programs, outreach and education, technical/compliance assistance, and financial assistance programs.
- The Executive Division contains the office of the DEQ Director, as well as the legislative liaison and the press secretary. The Executive, Financial and Business Services Division provides centralized accounting and administrative functions, and coordinates both the budget process and overall policy development. There is not a full-time planning office.

¹⁰⁴ DEQ website, May 2002. Also see *DEQ Environmental Quality Report 2000* and DEQ Strategic Planning Targets 2002

Two offices are particularly relevant to compliance questions: the Office of Administrative Hearings (OAH), and the Office of Criminal Investigations (OCI). OAH “is a quasi-judicial tribunal that holds formal hearings on licensing matters before the DEQ. An Administrative Law Judge conducts contested case hearings impartially on behalf of the department.”¹⁰⁵ OCI, by contrast, undertakes criminal enforcement cases, once such cases are referred by the regulatory programs. At least one criminal investigator is posted in each of the district offices.

Two offices focus on particular environmental issues: the Office of the Great Lakes and the Office of Special Environmental Projects. The remaining offices are focused on central administration, management and coordination functions: the Office of Automation Coordination, the Office of Communications and Education, the Office of Internal Audit, and the Office of Personnel Services.

Regional offices. DEQ maintains eight regional (district) offices. Each district office houses staff from the relevant regulatory divisions and EAD. The regional offices contain the agency’s inspection staff, and initiate and manage enforcement actions up to the referral stage.

Boards

DEQ is not subject to the authority of any boards or commissions for rulemaking, and permit and other fees are set by the legislature.

At the request of the Governor, DEQ is advised, as are other state departments, on certain matters by the Michigan Environmental Science Board (MESB). The MESB, established in 1992 by Executive Order, is an independent, autonomous Governor-appointed body charged with “advising the Governor, the Natural Resources Commission, the Michigan Department of Natural Resources and other state agencies, as directed by the Governor, on matters affecting the protection and management of Michigan’s environment and natural resources.” The MESB is neither a state policy body nor an advocate for or against any particular environmental or public health concern. The MESB is convened on an as-needed basis as an expert scientific panel. Staff and administration support for the MESB are provided by DEQ’s Office of Special Environmental Projects.

Recent institutional changes

DEQ not had any significant reorganization or changes to statutory authority within the past several years. However, it should be noted that DEQ itself is a relatively new institution. When Michigan’s primary environmental law, the NREPA, was enacted in 1994, most of the administrative authority was placed in the Department of Natural Resources (DNR). In 1995, the DEQ was created by Executive Order.

Under this Executive Order (No. 1995-16, §324.99903, known as the Executive Reorganization Order), authority over air pollution control regulations and waste management regulations (including water protection and hazardous waste management) were transferred from DNR to DEQ.¹⁰⁶ In addition, DEQ was given responsibility for related pollution prevention and compliance assistance activities, including Water Resources Protection, Clean Water Assistance, Waste Reduction Assistance, and implementation of the Clean Michigan Initiative. Subsequent

¹⁰⁵ DEQ Website, May 2002.

¹⁰⁶ See E.R.O. No. 1995-16 §324.99903 for detailed description of all statutory authorities transferred from DNR to DEQ.

Executive Orders 1996-1, 1996-2, 1997-2 and 1997-3 transferred additional environmental regulatory authority to the DEQ.¹⁰⁷

DNR's current authority is focused on oversight and administration of parks and recreation activities, and enforcement of fish, game, and wildlife protection regulations. (See DNR website at www.dnr.state.mi.us.) DEQ is thus the relevant agency for this project and this case study because we are focusing on the traditional triad of core regulatory functions (air, surface water, and hazardous waste), in addition to enforcement, compliance assistance, and leadership programs.

C.2 Planning

Goals and goal-setting

DEQ does have an agency-wide strategic planning process. It is based on department-wide Targets, Means and Measures that are established each year by the DEQ management team, comprised of the Director, Deputy Directors, and Division Heads. The DEQ's Targets are the highest-level statement of agency goals. For FY 2002, they are:¹⁰⁸

- (1) Provide excellent customer service;
- (2) Implement a comprehensive system to establish environmental baselines and measure environmental improvements;
- (3) Make a significant contribution to the redevelopment of our urban areas without having an adverse impact on the environment;
- (4) Increase voluntary pollution prevention activities;
- (5) Increase voluntary resource protection activities;
- (6) Improve rates of compliance with environmental requirements in targeted areas;
- (7) Modify or re-engineer agency operations and programs to maximize efficiency and effectiveness;
- (8) Pursue innovative alternatives to traditional regulatory approaches; and
- (9) Implement department regulatory and statutory responsibilities in an efficient and effective manner.

These targets are thus qualitative statements of priorities or intent, not specific numeric goals for either agency activities or ambient environmental conditions. *Means* establish the general mechanisms for DEQ to produce progress towards these targets. *Measures* indicate the degree of activity or progress under each means. DEQ's measures include quantitative indicators (e.g., "percent of permit and license decisions made within deadlines established by law, rule or division policy"), binary indicators (e.g., whether or not a rule has been issued by a certain date), or qualitative indicators (e.g., "assess the results of a pilot project").

¹⁰⁷ See DEQ 2000 Environmental Quality Report, p. 9

¹⁰⁸ "The Strategic Planning Targets" <http://www.michigan.gov/deq/0,1607,7-135-3306-14250--,00.html>, 10/01.

The strategic planning process is several years old, and the department-wide targets have not changed year to year, although the means and measures have varied more from year-to-year. Initiated by the Director, the strategic planning process was intended to supplant a division-centered total-quality management process inherited from the DNR by adopting an agency-centered strategic plan that would clearly relate the work of the divisions to agency objectives.

Strategic implementation

Strategic plan and linkage to agency division and office planning. Ultimately, all work carried out by DEQ divisions and offices should support one or more of the Department Targets. After the Targets, Means and Measures are issued by the Management Team each year, the process of assigning them to the divisions begins. In general terms, department-level means become division-level targets; divisions develop their own means and measures according to the scope of their activities. But not all targets are applicable to all divisions, and not all division means may be captured under the department's "key means." Divisions typically have significant flexibility in identifying the means by which they will work towards their targets.

Department staff noted that the strategic planning process adjusts to and attempts to reflect the fact that the work of DEQ is shaped heavily by the structure of funding, federal requirements, and legislative mandates. For example, targets incorporate core program maintenance/obligations. In the regulatory divisions, grant workplan commitments must be reconciled with Department Targets, Means and Measures, which is not necessarily a straightforward process. Divisions differ in their approach to achieving this reconciliation.¹⁰⁹

Even so, DEQ's strategic planning process does not simply structure the status quo; it can be a proactive agent of change. For example, the \$650 million Clean Michigan Initiative (CMI) for the bond issue is in large part attributable to DEQ's adoption of urban redevelopment as a department-wide target. Ninety percent of the bond issue is dedicated to brownfield redevelopment, representing a very significant deployment of DEQ resources for this issue.

Compliance planning and strategy. One of the Department Targets is to "improve rates of compliance with environmental requirements in targeted areas;" but the areas themselves are not specified in the target. Both department-wide and division/office-specific targets must be endorsed by the management team following submission of proposals by divisions and offices. Nevertheless, inspection results and citizen complaints are the dominant drivers of enforcement actions, and inspection plans are typically negotiated with U.S. EPA under grant workplans. DEQ's ability to target inspection resources, and thus enforcement activity in general, are constrained by the level of flexibility that can be negotiated with EPA, which tends to vary by division. All major media divisions reported that they had at least a moderate level of flexibility.

Division approaches to targeting exhibit wide diversity. The Air Division, for example, has an inspection targeting system that weights a number of facility database variables to produce an inspection target list. The system was actually developed, with U.S. EPA's consent, as an alternative to EPA's blanket inspection mandate for major sources. The Waste Management Division, with only 40 major transfer, storage and disposal facilities in its regulated universe, has shifted additional compliance resources to small quantity generators. Also, much of DEQ's inspection targeting has been based on geography rather than business sectors such as support for brownfield redevelopment in urban Detroit.

¹⁰⁹ Note that Michigan has not participated in NEPPS and does not have a PPA or EnPA EPA Region V. Grant workplans are thus used as coordinating/planning documents for federally delegated programs.

DEQ has been working towards full implementation of its department-wide Compliance and Enforcement Policy. The policy is focused on achieving consistency in compliance activities and terminology, and to achieve uniform tracking of enforcement activity across the divisions. It is not primarily concerned with compliance goal-setting or targeting. As DEQ's current structure provides cross-district coordination among the media divisions, the focus/intent of the Policy is to improve *cross-media* consistency.

One mechanism for such consistency—now part of the Policy—are monthly meetings of the compliance and enforcement chiefs for the various media divisions. Another is the multimedia coordinator position in each of the regional offices. Instituted several years ago, this two-year assignment is held by division supervisors in the regional offices, and the position provides a promotion. The Policy mandates monthly multi-media enforcement meetings in the regional offices, chaired by the multi-media coordinator. These coordination meetings initially arose from a court ruling mandating that all related claims for a given facility must be brought to the enforcement process at one time.

Accountability mechanisms. Once DEQ's Targets, Means and Measures are rolled out to the divisions and then to the division section chiefs, the planning process extends to the regional offices. Each of the regional offices develops a consolidated workplan for all programs served by that office. Individual staff objectives are tied directly to division targets, means, and measures. The most recent step in implementation of DEQ's strategic planning process, these individual objectives are now approaching consistency throughout the department.

Adaptive management and resource flexibility. An emerging high-level instrument for DEQ's monitoring and adaptive management is the "Director's Dashboard." The Dashboard is composed of a set of key indicators for department and division performance. While there is not a one-to-one correspondence with the nine Department Targets, the Dashboard indicators are intended to monitor the "vital functions" that are embodied in many of the targets and are of key concern to the Director. These vital functions fall into five categories: compliance, permits, business operations, customer service, and program modification/reengineering.

Divisions report the requested Dashboard data quarterly, as well as reporting any barriers to better performance. The most difficult current issues are the aggregation of division data in a meaningful way and the means of presentation. A mix of text and graphics is used, but DEQ intends to allow the user to disaggregate any given indicator at least to the division level. The department's Deputy Directors have been actively involved in this project.

Aside from grant workplan commitments, the degree of resource flexibility that DEQ may exercise in response to the "Dashboard" or in pursuit of its targets is heavily contingent on its funding sources. The legislature appropriates from dedicated funds, and DEQ has very limited capacity to redirect these funds. General fund appropriations are more flexible.

C.3 Data, Measurement and Monitoring

Ambient environmental and emissions monitoring

DEQ and DNR are charged by law to cooperate in preparing a "biennial report on the quality of the environment, based on scientifically supportable environmental indicators and using sound

scientific methodologies.¹¹⁰ Pursuant to this obligation, in early 2000 the Governor requested the Michigan Environmental Science Board (MESB) to evaluate candidate indicators for the report as proposed by DEQ and DNR. Among the recommendations made by MESB in its report were that the state begin to “develop and ultimately implement a sample collection protocol, referred to as Master Stations, from which it can systematically and consistently collect biotic, chemical and physical information on the state’s environment. The Masters Stations would need to be permanent to provide long-term trend analysis, incorporate a distributed sampling grid, be intensively monitored, and be integrated and optimized with the existing state environmental monitoring programs.”¹¹¹ At the time of the MESB study, the primary methodological concerns were different monitoring methodologies in use by DEQ and DNR, and a general focus on short-term, site-specific concerns rather than the accumulation of long-term baselines.

If DEQ and DNR are able to implement fully the Master Stations for water quality monitoring, Michigan will possess high-quality ambient environmental monitoring networks for both air and water. At present, however, DEQ’s ambient monitoring network for air is better than for water, although water monitoring is improving. Water monitoring stations have been funded by an additional legislative appropriation from the Clean Michigan Initiative, thus funding the plan to improve DEQ’s water monitoring capabilities and requiring an additional \$3 million in annual budget increase above the mid-1990 baseline.

The water division also recently completed a five-year assessment of all major watersheds in the state, and will shortly issue the state’s first full water quality assessment. Other ambient monitoring undertaken by DEQ is funded out of the relevant media division.

Environmental and compliance data systems

DEQ does not have an integrated agency-wide compliance information system. Data systems are maintained separately by each of the media divisions, but they all reported significant ongoing and/or planned upgrades of existing systems. The waste management division, for example, is working to complete an integrated database incorporating both compliance tracking and a set of formerly disparate databases. The division is also attempting to move towards a PDA-based inspection report system for its inspectors. The water quality division is likewise working on an integrated database for permitting, compliance, and DMR information.

DEQ is pursuing a department-wide facility identifier project with the goal of eventually providing a single point of access for multi-media compliance information on a facility basis. To date, DEQ has focused on assuring that information system upgrades carried out within each division are consistent with this goal and on standardizing compliance terminology and tracking requirements across the agency. Terminology and tracking standardization is also a goal of the department’s compliance and enforcement policy. The policy has been written and promulgated as department policy and is now being implemented by the media divisions.

Measurement and evaluation

One of the nine Department Targets is to “Implement a comprehensive system to establish environmental baselines and measure environmental improvements.” The biennial state of the environment report is intended to reflect the current state of this baselining activity.

¹¹⁰ *State of Michigan’s Environment 2001: First Biennial Report (9). P.L. 195 of 1999, Environmental Indicators Act.*

¹¹¹ *Ibid.*, 10.

As noted above, DEQ's strategic planning process establishes Department Targets, Means and Measures. The measures are indicators of the extent of progress or implementation of each means. In addition, the Director's "Dashboard" is intended to provide quarterly monitoring of those activities considered most vital by the Director's office (see above).

C.4 Compliance Tools and Process

Note: Material in this section deals with the *character of compliance activities, tools and procedures*, not the level of compliance activity or its results. Environmental and compliance performance is addressed below in section C.7.

Permits

Authorities and appeal procedures. Under NREPA, DEQ is responsible for issuing permits under the major media regulatory programs.¹¹² When a permittee applies for renewal of a permit or a new permit for activity of a continuing nature, the existing permit does not expire until the agency makes a decision on the application.¹¹³

If the terms of permit have been, are being, or may be violated, DEQ can modify, suspend or revoke the permit or grant the permittee a reasonable period in which to comply. DEQ can reissue a revoked permit if permittee has corrected the violation. NREPA §324.3112(1).

To appeal a permitting decision, the owner or operator of a source may file a petition for review of his application. Review is conducted pursuant to contested case and judicial review procedures of the Michigan Administrative Procedures Act (APA) of 1969 (Act No. 306 of the Public Acts of 1969, §24.201–§24.328; NREPA §324.5506(14)). This petition must be filed within 30 days after final department action. *See* Regulation R336.2701.

To obtain judicial review of a permitting decision, the applicant must file a petition for review 90 days after the final permit action. If a new ground for petition arises after this deadline, then the petition must be filed 90 days after the new ground arises. NREPA §324.5506(14). An applicant can only obtain judicial review after all administrative remedies have been exhausted. APA §24.301.

Backlog. In the early 1990s, a significant backlog of NPDES permits had accumulated and became a political issue for the legislature and DEQ. As a result, the legislature appropriated \$1.5 million for the department to develop and pursue a five-year plan to eliminate the backlog, which was accomplished. Further, all permits in an individual watershed are now synchronized so they expire at the same time.

The department's largest current permitting challenges are Title V and groundwater permitting activities. The air program has diverted significant inspection resources to Title V permitting activities. In groundwater permitting carried out by the waste management division, the challenge is low staffing levels: only seven FTE to handle a permit workload of about 275 permit

¹¹² *See, e.g.*, NREPA §324.3106 (DEQ issues permits to ensure compliance with state water resources protection standards); §324.5503 (DEQ issues permits to ensure compliance with air pollution control regulations).

¹¹³ Administrative Procedures Act of 1969 (Act 306 of 1969) §24.291(2). *See also* NREPA §324.5506(5) (providing that if the DEQ fails to approve or deny an existing permit prior to expiration, the permit shall not expire until it is approved or denied).

expirations per year. A groundwater discharge permit fee that would fund additional FTEs has been proposed for several years but has not yet approved by the legislature. Finally, in the next few years, the water program may be faced with the challenge of significant TMDL permit demands if current voluntary approaches do not achieve ambient water quality standards.

Inspections

General authority. Inspections are a critical component of enforcement, and NREPA generally provides DEQ with broad inspection authority. Specific media provisions include:

- The water protection provisions authorize DEQ to enter public or private party at all reasonable times to inspect and investigate (NREPA §324.3105).
- Similarly, the air pollution prevention provisions authorize the department to enter and inspect any property at reasonable times for purposes of investigating an actual or suspected source of air pollution (NREPA §324.5526).
- The hazardous waste management provisions authorize DEQ to enter at reasonable times and places where hazardous wastes have been generated, treated, stored or disposed of (NREPA §324.11146). They further provide that DEQ shall inspect and file a written report not less than four times per year for each licensed Transportation, Storage and Disposal Facility (NREPA §324.11144). Upon receipt of a complaint or allegation from a municipality, DEQ must make record of the complaint and order inspection of the facility within five business days and, if the complaint or allegation is of a highly serious nature, shall inspect the facility as quickly as possible (NREPA §324.11144(3)). Following the investigation, DEQ must make a written report to the municipality within 15 days (NREPA §324.11144).

Inspection goals. Each media program has inspection goals that are the subject of grant workplan negotiations with U.S. EPA Region V. All of DEQ's media programs consider environmental or compliance priorities in the formulation of their inspection workplans. For example, the inspection targeting system devised by the air division has been described above. The waste management division has focused inspection resources on small quantity generators because Michigan has only 40 major treatment, storage and disposal facilities.

Civil enforcement

Escalated enforcement process. DEQ conducts activities such as site inspections, permit application reviews, and financial record reviews to detect violations of rules, permits, and orders.

Each media division has an enforcement unit that handles referrals from the district offices. Referred violations enter an escalated enforcement process, as described below. Most violations (80 percent or more) are not referred by the districts; referrals are typically reserved for serious violations and/or situations when the violator's response to an initial notification of violation has been confrontational. The media divisions have guidelines for referral: implementation of DEQ's new Compliance and Enforcement Process is intended to increase the consistency of referral criteria across the various divisions.

Once an enforcement referral is made, administrative enforcement follows an escalated process that is generally similar across the various media: Other enforcement provisions for specific environmental media are discussed below.

- Upon discovery of a violation, DEQ first provides the alleged violator with an opportunity to enter into a voluntary agreement called a Consent Order. DEQ does not have administrative penalty authority except for the drinking water program and “red tag” authority held by the Underground Storage Tank program.
- If a Consent Order is not entered into or not complied with, DEQ issues a Compliance Order.
- The recipient of the Compliance Order may protest the order at an administrative hearing known as a contested case hearing.
- If a violation is found, the violator is issued a Final Order, which may be appealed in a judicial action.
- Using a Consent Order, Compliance Order or Final Order, DEQ may require the alleged violator to eliminate or remediate the violation and can assess administrative fines and penalties. In practice, the consent, compliance and Final Orders typically take the form of negotiated settlement agreements.¹¹⁴

If an enforcement case proceeds to a civil or criminal judicial trial, Michigan’s Attorney General becomes the sole legal representative of DEQ.¹¹⁵ Various provisions throughout NREPA also authorize the courts to impose civil and criminal penalties for certain violations.

In granting relief, the courts may determine the validity or reasonableness of any DEQ standard for pollution, antipollution device, or procedure challenged by a violator and, if the court finds DEQ’s rules to be deficient, it may direct the adoption of a different requirement approved by the court. NREPA §324.1701. Parties to a judicial action may recover their costs “if the interests of justice require.” NREPA §324.1701.

If administrative, licensing, or other proceedings are required or available to determine the legality of a violator’s conduct, the courts may direct the parties to seek relief in such proceedings. But the courts may grant temporary equitable relief if necessary and can retain jurisdiction to determine whether the administrative proceeding afforded adequate relief. NREPA §324.1704.

Specific provisions and process for water. NREPA provides that DEQ is responsible for issuing orders restricting pollution into a water body. NREPA §324.3106. If DEQ determines that a person is about to cause or is causing unlawful water pollution, DEQ can either notify the person of the violation and enter an order requiring abatement, or refer the matter to the Attorney General to commence a civil action for appropriate relief, including a temporary or permanent injunction. NREPA §324.1112(2).

¹¹⁴ As part of settlement agreements, regulated entities will often request to incorporate a supplemental environmental project (SEP) in-lieu of payment of a portion of the monetary penalty. An SEP is an environmentally beneficial project that an alleged violator agrees to undertake as part of the settlement of an enforcement action, but which the alleged violator is not otherwise legally required to perform. The monetary penalty usually required to settle the enforcement action is then reduced as a result of the SEP undertaken by the alleged violator. DEQ “strongly encourages the use of properly designed, documented, enforceable, and administered SEPs in settlement agreements.” (See DEQ Policy and Procedures Memorandum, No. 04-002, 11/10/97)

¹¹⁵ Note that under Michigan law, only the Attorney General may bring suit on behalf of the state. NREPA provides that the Attorney General or any person may maintain an action for declaratory and equitable relief against any person for the protection of the air, water, and other natural resources and the public trust in these resources from pollution, impairment or destruction. (NREPA §324.1701)

A person aggrieved by an order of abatement or by permit reissuance, modification, suspension, or revocation can file a sworn petition, setting forth grounds for complaint and requesting a contested case hearing. A petition filed more than 60 days after action on the order or permit may be rejected by the commission as untimely. NREPA §324.1112(3).

An employee of DEQ or an employee of another government agency appointed by DEQ may, with the concurrence of DEQ, enforce this part and make a criminal complaint against any person who violates this part. NREPA §324.3114.

If the matter must proceed to judicial action, DEQ will request the Attorney General to commence a civil action for appropriate relief, including injunctive relief, for violation of a permit, order, rule, or stipulation of the department. The court has jurisdiction to restrain the violation and to require compliance. In addition, the court can impose an additional civil fine of not less than \$2,500 and not more than \$25,000 per day of violation, and may award reasonable attorney's fees and costs to the prevailing party. NREPA §324.3115(1). If the court finds that the actions of a civil defendant pose or posed a substantial endangerment to public health, safety or welfare, the court must impose an additional fine of not less than \$500,000 and not more than \$5 million. NREPA §324.3115(3).

The Attorney General may also file a civil suit to recover the full value of the injuries done to the natural resources of the state and the costs of surveillance and enforcement resulting from the violation. NREPA §324.3115(2).

Specific provisions and process for air. Under NREPA, the department has the authority to make, modify, or cancel orders that require air pollution control. NREPA §324.5503(f). The department also has the authority to institute court proceedings to compel compliance. NREPA §324.5503.

If DEQ suspects a violation of *a rule or permit*, it must promptly investigate. If the investigation indicates there is a violation, then DEQ must attempt to enter into a voluntary agreement known as a Consent Order. This Consent Order may provide for monetary or other relief as agreed upon by the parties. Each Consent Order must provide for compliance and must contain a compliance schedule. NREPA §324.5528. If no Consent Order is entered into, then DEQ may issue an order to comply, which must be accompanied by a statement of facts. A person may file a petition for a contested case hearing pursuant to the APA §24.201–§24.328. A petition for a contested case hearing must be filed within 30 days of the effective date of the order. DEQ must schedule the matter for hearing within 30 days. A Final Order can be reviewed in circuit court in accordance with the APA §324.5515.

If DEQ believes there is a violation of an *order*, it must promptly investigate. If the investigation indicates there is a violation, then DEQ *may* attempt to enter into voluntary agreement but is not required to do so. DEQ can also commence a civil action to compel compliance with a request for entry and access to records. NREPA §324.5526(2)(b).

If DEQ finds a violation of the statute or a rule promulgated under the statute, failure to obtain a permit, violation of an order, or failure to comply with terms of permit, it may assess an administrative fine of up to \$10,000 for each instance of violation. If a violation continues, there is a fine for each day of continued non-compliance. NREPA §324.5529(1). The assessment of a fine may either be part of a Compliance Order or a separate order issued by DEQ. Within 28 days

of being assessed an administrative fine, the person may file petition for review. Review is conducted pursuant to contested case procedures of APA §§ 24.271–24.287.¹¹⁶

Note that the DEQ may suspend enforcement of any rule if it would cause an unreasonable hardship by granting variances. NREPA §324.5535.

If the case proceeds to judicial action, DEQ requests the Attorney General to commence a civil action for appropriate relief. DEQ can request injunctive relief and a civil fine for violating a rule, failure to obtain a permit, failure to comply with the terms of a permit or order, failure to pay an air quality fee, failure to comply with inspection, entry and monitoring requirements, and for causing imminent and/or substantial endangerment.¹¹⁷ NREPA §324.5530; *See also* NREPA §324.5518(2).

The court may impose a civil fine of no more than \$10,000 for each violation and for each day of continued violation. Certain violations can also constitute misdemeanors and felonies, which permit both fines and imprisonment depending on the violation. NREPA §324.5531. In determining civil or criminal fines, the court is to consider the size of the business, economic impact of penalty, compliance history, duration of violation, payment of previously assessed penalties, economic benefit of non-compliance, seriousness of violation, and other such factors as justice may require. NREPA §324.5532.

At the request of DEQ, the Attorney General may also file an action for the value of injuries to natural resources. NREPA §324.5530.

A person can petition the circuit court for relief from rule promulgated by DEQ if such rule is unreasonable or prejudicial. NREPA §324.5517

Waste management provisions and process. If DEQ determines, on the basis of any information, that there is or has been a release of a hazardous waste, DEQ may order or enter a Consent Order with the owner or operator of the facility, requiring corrective action at the facility. The license, permit, or order must contain schedules for compliance for corrective action if it cannot be completed prior to issuance of the license, permit or order and assurances of financial responsibility for completing the corrective action. NREPA §324.11115a(4).

If DEQ finds that a person is in violation of a permit, license, rule, or corrective action order, DEQ may issue an order requiring the person to comply (known under the hazardous waste provisions as an “order of non-compliance”). NREPA §324.11151.

For example, if a licensed TSD (transfer, storage, and disposal) facility exceeds the maximum quantities of hazardous waste allowed under its license, DEQ may issue an order of non-compliance specifying the corrective action necessary and may order the facility to cease receiving hazardous waste. This order must not remain in effect for more than seven days without affording the owner or operator of the facility opportunity for a hearing.

¹¹⁶ An “emergency” constitutes an affirmative defense for an action brought for non-compliance with a rule or permit. The defendant must submit notice of emergency within two days and has the burden to establish that an emergency existed. NREPA §324.5526.

¹¹⁷ If DEQ finds that a discharge is causing an imminent and substantial endangerment to public health, safety, welfare or environment, DEQ must issue a written order for the alleged violator to contain the endangerment. This order is valid for seven days; within these seven days, DEQ must provide an opportunity for the alleged violator to be heard. Upon receipt of evidence that a person is causing imminent and substantial endangerment, the Attorney General may bring suit on behalf of the state in circuit court to contain the imminent and substantial endangerment. If the Attorney General brings a civil action within these seven days, then the order is valid for an additional seven days or other amount specified by the court. NREPA §324.5518(1).

If the order remains in effect after the hearing or the owner or operator waives his right to a hearing, then the owner or operator must cooperate with DEQ to develop a compliance plan. If the owner or operator fails to make reasonable efforts to comply with this plan, then DEQ may issue an order suspending or restricting the facility's license. This order must not remain in effect for more than seven days without an opportunity for a hearing. If a TSD facility in violation of this provision has previously been issued an order of non-compliance, DEQ may issue a second order of non-compliance and proceed according to the above method; or may directly initiate an action to suspend or restrict facility's license without first issuing an order of non-compliance. NREPA §324.11150.

If DEQ believes that the storage, treatment, disposal, or transportation of a waste presents an imminent and substantial hazard to human health or the environment, DEQ can, after consultation with the Director of Public Health (or a designated representative), take one of three actions (NREPA §324.11148):

- DEQ may issue an order requiring the regulated entity to eliminate the hazard. This order may be issued without prior notice or hearing and must be complied with immediately. The order must not remain in effect for more than seven days without providing opportunity for a hearing. If this order is not complied with, DEQ must issue a cease and desist order and initiate action to revoke the facility's operating license and take appropriate action.
- DEQ may request that the Attorney General commence an act for injunctive relief.
- DEQ may revoke a TSD's permit or license after reasonable notice and hearing pursuant if the facility is not in compliance.

Based on the statutory authority outlined above, DEQ's Waste Management Division (WMD) has developed a two-track administrative enforcement process. WMD's initial response to a suspected violation is a letter of warning or letter of deficiency, which may be followed by a second letter. If the violation is not resolved by the letter, it either goes to the enforcement section of WMD for "escalated enforcement" or, for less serious violations, to "fast track enforcement."

Under "fast track enforcement," the district/program unit staff negotiates a Consent Order with the respondent. The negotiations may not continue for more than 90 days. If no Consent Order is entered into or the Consent Order is not complied with, then it is referred to the enforcement section for "escalated enforcement."¹¹⁸

Fast track enforcement was developed primarily to address minor, but repeated, violations and to function in a manner similar to an administrative penalty order; it may not be used to address certain types of violations. In particular, if the violator is suspected to be a Significant Non-Complier (SNC), the district/unit staff must report it to the Enforcement Division for SNC determination within 14 days of discovery of violation. If found to be a SNC, then the district/unit must refer it to Enforcement Division for "escalated enforcement." The Enforcement Division must notify U.S. EPA Region V and enter it into the Resource Conservation and Recovery Information System (RCRIS).¹¹⁹

¹¹⁸ See WMD "Operational Memo" 111-17, April 30, 1999, under "enforcement/interagency memos" tab in binder.

¹¹⁹ See "Operational Memo" 111-7, March 10, 1999, under "enforcement/interagency memos" tab in binder.

If the case proceeds to judicial action, DEQ will request the Attorney General to commence a civil action. NREPA authorizes the Attorney General or any person to commence such an action for appropriate relief for a violation of a rule, permit, license, or order. The court has jurisdiction to restrain the violation, require compliance, and impose the following penalties:

- The court can impose a civil fine of not more than \$25,000 for each instance of violation or, if violation is continuous, for each day of violation. (NREPA §324.11151(1)).
- A person who transports, treats, stores, disposes, or generates hazardous waste in violation of the statute, or who makes a false representation in any application for or relating to a permit, license, or order is guilty of a misdemeanor for which the court may impose a fine of not more than \$25,000 for each violation and, if the violation is continuous, for each day of the violation, or imprisonment for not more than one year, or both. NREPA §324.11151(2).
- A person who knowingly transports, treats, stores, or disposes of hazardous waste knowing that he or she places another person in imminent danger of death or serious bodily injury, and if his or her conduct manifests an “unjustified and inexcusable disregard for human life” is subject to a fine of not more than \$250,000 or imprisonment of not more than two years, or both; if such conduct constitutes an “extreme indifference for human life,” such person is subject to fine of not more than \$250,000 and imprisonment of not more than five years, or both. A person convicted under either of these subsections must pay all costs of corrective action associated with the violation. Fines are even greater if the violator has been convicted for such a violation previously or if the violator is not an individual or a government entity. NREPA §324.11151(3).

The Attorney General may also bring action in court to recover the full value of the damage done to the natural resources of the state and costs of surveillance and enforcement resulting from the violation. NREPA §324.11151(9).

Criminal enforcement

DEQ maintains an Office of Criminal Investigation (OCI) within the Executive Division. Each of the 10 DEQ regional offices has at least one criminal investigator, with about 17 investigators total. District media staff work directly with these investigators, and the regional offices are responsible for referring cases to OCI, with concurrent notification to the appropriate media division managers at headquarters.

For air and waste violations, criminal penalties and judicial procedures are discussed in the section above on civil enforcement.” For water, the following specific provisions apply:

In a criminal case, the court must impose penalties of no less than \$2,500 but no more than \$25,000 for each violation, an additional fine of not more than \$25,000 per day of violation, and can impose a sentence of up to two years imprisonment or probation. If the violator has been previously convicted under this subsection, the court must impose an even higher fine. NREPA §324.3115(2). If the violation resulted in substantial endangerment, the court may impose an additional fine of not less than \$1 million and a five-year sentence. NREPA 324.3115(4).

Compliance and beyond-compliance incentives

DEQ has placed considerable emphasis on voluntary approaches, with three of the nine Department Targets focused on promoting and increasing voluntary and alternative approaches (see the section above on goals and goal-setting). DEQ’s voluntary and leadership programs, as

well as pollution reduction and P2-based financial assistance mechanisms, are generally administered by the Environmental Assistance Division (EAD).

Clean Corporate Citizen (C3) is DEQ's leadership program. Administered by Environmental Assistance division, Clean Corporate Citizens receive both public recognition and certain regulatory benefits, including expedited permit reviews and fewer monitoring and reporting requirements.¹²⁰ The C3 program currently has 42 participants.

Administrative Rules R 324.1501 to 1511 establish the criteria to qualify as a Clean Corporate Citizen. They include a strong and effective environmental management system, adoption of a pollution prevention program, consistent compliance with all applicable environmental requirements, and no outstanding unresolved violations.

Recognition and P2 programs. DEQ runs a significant number of P2 or recognition-based programs. They include:

- The Michigan Business Pollution Prevention Partnership (MBP3) is a voluntary program open to all Michigan businesses; participants draft a P2 plan and commit to its implementation, receiving in return recognition for these efforts. EAD is responsible for providing pollution prevention assistance, recognizing participants, and reporting on program's progress. There are currently over 150 participants in this program.
- Other P2/recognition programs (with the number of participants listed parenthetically where known) are: the Lake Superior Pollution Prevention; Mercury Pollution Prevention; Metal Finishing Pollution Prevention (35); Michigan Auto Project; Turfgrass Environmental Stewardship Program (73); Michigan Great Printers Project (138); Pulp and Paper Pollution Prevention; Small Business Chemical Manufacturer's Pollution Prevention Initiative (20); Department of Defense-State of Michigan Pollution Prevention Alliance (12); and others. These programs focus on technical assistance, goal establishment, public recognition, and education outreach.
- Under the Retired Engineers Technical Assistance Program (RETAP), retired engineers, scientists, and other qualified professionals provide on-site pollution prevention assessments to small and mid-sized businesses and industry throughout the state. NREPA §324.14511. RETAP is administered by contract utilizing funding generated from a dedicated endowment established under the CMI. Facilities receiving RETAP assessments automatically qualify for low-interest P2 loans from a CMI-funded revolving fund. NREPA §324.14513.

Audit programs. Michigan does have an audit privilege law, amended from its initial form to address U.S. EPA concerns. NREPA Part 148 provides an "Environmental Audit Privilege and Immunity," according to following scheme:

- Limited privilege status is granted to environmental audits, meaning that certain information contained in the environmental audit report is to be held privileged and not accessible to a state or local government agency or to the public. NREPA §328.14812.¹²¹

¹²⁰ C3 Fact Sheet, February 2000; *See also* Administrative Rule R 324.1510, Act No. 339 of the Public Acts of 1976 (§325.1001 to 325.1023 of Michigan Compiled Laws); Act No. 368 of the Public Acts of 1978 (§§333.13501 to 333.13536 and 333.13801 to 333.13831 of the Michigan Compiled Laws); and Act No. 451 of the Public Acts of 1995 (§324.101 et seq. of Michigan Compiled Laws).

¹²¹ However, the court, after in camera review, can require disclosure of the material if it finds that the privilege is asserted for fraudulent purpose, or the material shows evidence of non-compliance with environmental laws and the

- For violations that are discovered through an environmental audit and are voluntarily and promptly corrected and disclosed to the appropriate state and/or local regulatory agency, immunity is granted from state administrative or civil fines and penalties and certain criminal penalties and fines for negligent acts or omissions, except in the case of gross negligence. NREPA §324.14809.¹²²
- In order to receive immunity from fines and penalties, the entity conducting the environmental audit must give prior notice to DEQ that it is conducting audit and must make voluntary disclosure of the violations discovered as a result of the audit. NREPA §324.1409(7).

Self-audit information is integrated into all of EAD's assistance materials. EAD believes that the existence of the self-audit policy removes an important barrier to more facilities adopting environmental management systems (EMS) and to self-policing through their EMSs.

Compliance assistance

EAD-based compliance assistance. EAD provides a central compliance assistance function and also houses DEQ's Environmental Assistance Center, which provides a single point of contact for all telephoned public queries to the agency. However, significant compliance assistance activity also occurs in the regulatory divisions. This regulatory division-based activity, predates EAD's formation and is carried out in substantial part using the regulatory division's field presence such as inspections.

Reflecting the impetus and discussions that led to EAD's establishment in 1994, EAD's general focus in compliance assistance activity are small and medium enterprises, and other communities that have relatively little interaction with DEQ in the field.

EAD also houses DEQ's permit coordination function, intended to provide a single point of contact for facility permitting issues. In addition, EAD at all times hosts regulatory division staff on two-year rotation assignments who provide compliance assistance consultations and carry out compliance assistance projects of interest to their home divisions.

EAD carries out a number of compliance assistance activities, including workshops, seminars, and conferences that inform Michigan entities on current regulatory requirements, pollution prevention, compliance assistance, new technologies, and other areas of interest,¹²³ as well as telephone consultations and publications, such as the *Michigan Manufacturers' Guide to Environmental and Safety and Health Regulations*. Two major compliance assistance programs administered by EAD are the small business clean air assistance program mandated by the federal Clean Air Act, and wastewater treatment plant operator certification and training.

As noted, EAD administers a number of financial assistance mechanisms. The Clean Water State Revolving Fund (SRF) and the Drinking Water Revolving Fund (DWRP) make low interest loans available to municipalities for financing improvements in wastewater and drinking water infrastructure. EAD also administers a Pollution Prevention Small Business Low Interest Loan

owner/operator failed to remedy or eliminate the violation within a reasonable time not exceeding three years after discovery of violation (or a longer period allowed by a Compliance Order). NREPA §328.14804(4).

¹²² However, the elimination of penalties does not apply if the person has knowingly committed a criminal act, engaged in a pattern of gross and repeated violations, derived substantial economic benefit from the violation, or if the non-compliance resulted in imminent and substantial endangerment or a violation of an administrative or judicial order.

¹²³ EAD website, http://www.michigan.gov/deq/0,1607,7-135-3306_3334_3564---,00.html; 6/02

Program and several pollution prevention grant programs with funding made available by the Clean Michigan Initiative.

Compliance assistance by the media divisions. As noted, most compliance assistance activity by the media divisions occurs during field inspections. DEQ does not draw a bright line distinction between compliance assistance and enforcement when conducting inspections. Most divisions appear to approach inspections with the expectation of offering compliance assistance and guidance when appropriate. Most division managers whom we interviewed believed that the true distinction between compliance assistance and enforcement occur once a violation is referred for escalated enforcement.

Regulatory innovation efforts. In 1998, the U.S. EPA and the Environmental Council of the States (ECOS) entered the *State/EPA Agreement to Further Regulatory Innovation*. The purpose of the agreement is to encourage state innovations in environmental regulatory programs, and establish a decision-making process for reviewing and implementing these innovations.

DEQ, as a major proponent of the agreement, has been a leader in developing and deploying these innovations. This effort is centered in EAD. EAD, working directly with regulatory division staff, has developed eight innovation projects. Seven of these are being implemented, and one is pending U.S. EPA approval. In general, these projects are intended to rationalize certain aspects of regulation and reduce costs of compliance for the regulated entity and DEQ, while producing equal or superior environmental outcomes. They are not compliance assistance in a traditional sense, but are focused on facilitating compliance:

- Municipal Separate Storm Sewer System (MS4) Permit (SWQD)
- Cooperative Agreements to meet TMDL for phosphorous (SWQD)
- Alternative BACT for Specified Source Categories (AQD)
- Concurrent State and Federal Rulemaking Under the Clean Air Act
- Expedited De-listing of FO19 Waste for Auto Assembly Plants under RCRA (WMD)
- Waiver of Liability for Lending Institutions under RCRA (WMD)
- Use of Flushing to Meet the Federal Lead/Copper Regulation for Non-transient Non-community Water Supply Systems
- Use of Bottled Water as a Corrective Action for Non-Acute Contamination at Existing Non-community Public Water Supplies

More detailed information on each innovation is available under “Assistance and Support Services” on the DEQ website at www.michigan.gov/deq.

C.5 Informing and Interacting with the Public

Public reporting

State of the environment and other public reports. By law, DEQ is obliged to collaborate with DNR on issuing a biennial state of environment report. (P.A. 195 of 1999). The legal requirement and the role of the Michigan Environmental Science Board in recommending scientifically sound

indicators is described in the section above on ambient environmental and emissions monitoring. The first report was issued in 2001.

The second half of the report contains programmatic measures. These measures include, for example, emissions information, environmental cleanup site status, brownfield reclamation progress, and the compliance status of various types of facilities. Although the activities or conditions they reflect “may ultimately have an impact on the overall quality of the environment,” these programmatic measures are intended to measure “how well a given program is functioning to correct or control localized environmental issues and/or programs” (*State of Michigan’s Environment 2001*, 10).

Prior to the 1999 law, DEQ issued two environmental quality reports in 1999, and 2000. These reports did not include the full natural resource coverage, nor did they make the clear distinction between environmental and programmatic measures of the current integrated report. DEQ also publishes the DEQ Resource Guide that provides information about the department's mission, structure, program areas, budget and services. DEQ does not issue a public report that specifically explains its progress on achieving Department Targets via the Means and Measures scheme.

On-line information. Permit status, much enforcement activity, and the text of most DEQ-issued permits are available on-line, as are emission inventories and emission reports. The public has access to this core regulatory information, but facility information must be accessed separately for each media/regulatory program. Permit backlogs and other elements of the Directors’ Dashboard or similar measures of performance in relation to Department Targets are not available on-line.

Community Environmental Awareness Project (CEAP). CEAP is a DEQ effort to improve the way environmental information is presented and made available to the public. Specifically, CEAP seeks to improve the public's access to, and understanding of how, major industries are performing under environmental laws and regulations. The pilot phase of this project profiles automobile manufacturing facilities. Automobile assembly plants were chosen to pilot this project because they are large manufacturers with potential for significant environmental impacts; DaimlerChrysler Corporation, Ford Motor Company and General Motors have participated in the pilot.

The pilot has proven to be resource-intensive, particularly in regard to facility compliance history research and development of plain-language explanation of regulatory requirements; but EAD believes that it has yielded very useful knowledge regarding (1) how to present data and regulatory requirements and (2) gaps and strengths in DEQ data systems. CEAP outputs can be found on the DEQ website at <http://www.deq.state.mi.us/ceap/>. Pending evaluation of the pilot, DEQ hopes eventually to expand this effort into other industry sectors.

Public involvement

In general and for planning. DEQ’s high-level strategic planning—i.e., the development of Department Targets, Means, and Measures—does not include a formal public participation/stakeholder process. The management team does periodically—about every seven weeks—hold a public meeting at rotating locations around the state.

DEQ’s permits do have a typical public notice and comment period. For Air Division enforcement, all settlement agreements must be posted for a 30-day public comment period; and any member of the public can request a public hearing on the settlement.

Environmental complaints and direct action. NREPA establishes authority for citizen suits, providing that any person may maintain an action for declaratory and equitable relief against any

person for the protection of the air, water, and other natural resources and the public trust in these resources from pollution, impairment or destruction. NREPA §324.1701. If the court has “reasonable grounds to doubt the solvency of the plaintiff,” the court may order the plaintiff to post a surety bond. NREPA §324.1702. It is unclear whether this bonding requirement functions in practice as a barrier to citizen suits.

C.6 Financial and Human Resources

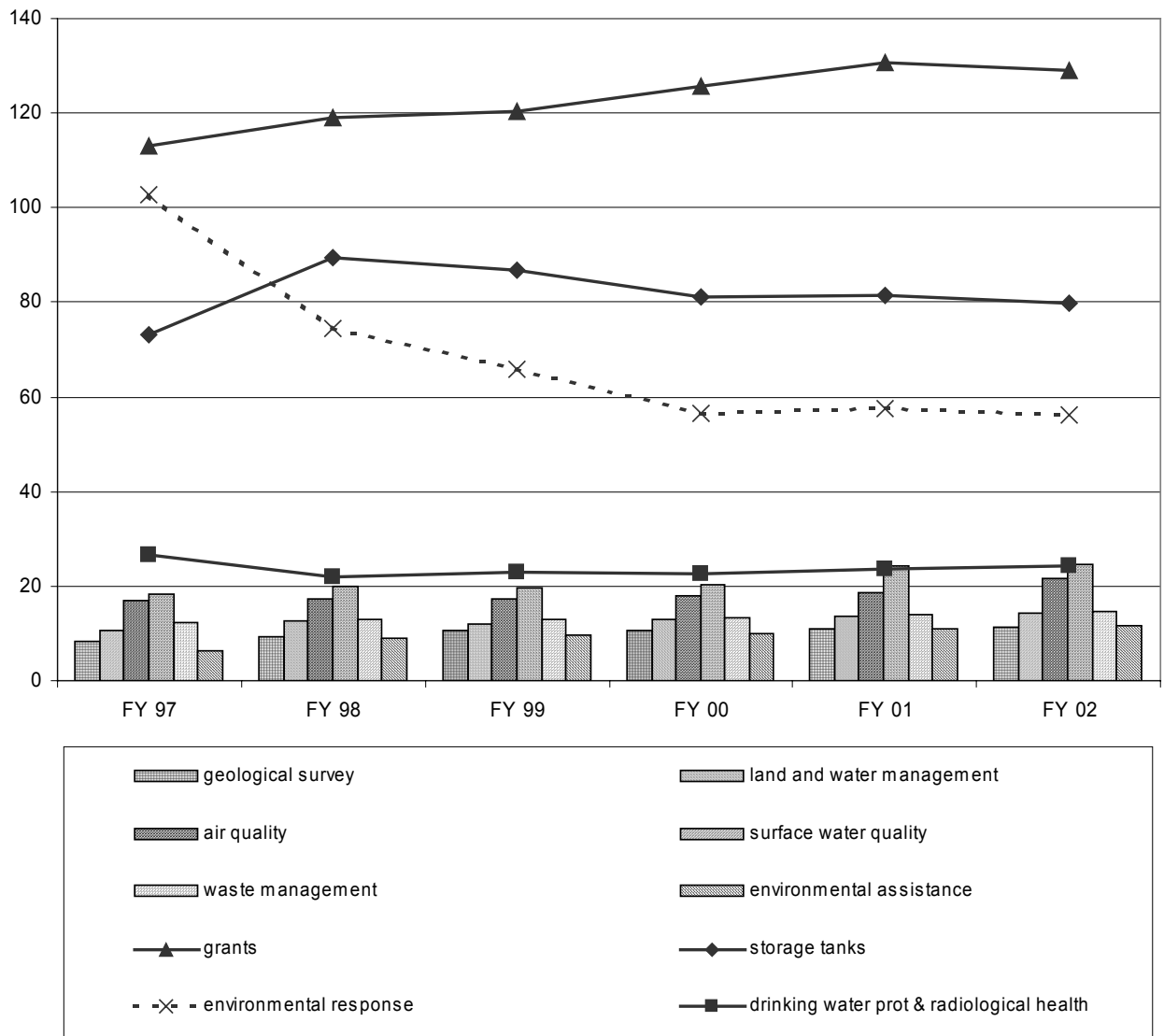
Budget

As with other state environmental agencies, DEQ is funded by a mixture of state general appropriations (about 25 percent in FY 2002), various federal funding sources (about 32 percent in FY 2002), various fees (about 13 percent in FY 2002), and a number of dedicated funds. Fee structures and levels are set by the legislature.

It should be noted that EAD’s activities, which are DEQ’s principal P2, leadership and compliance assistance activities, are funded primarily from dedicated sources. For example, P2 funding comes from hazardous waste reduction fees. Most of these dedicated funds do not lapse to the general fund and can carry any balance forward to the next fiscal year; however, expenditures from these funds are authorized by the legislature as line-items. Typically, if there is little change in the expenditure level, there is little legislative debate.

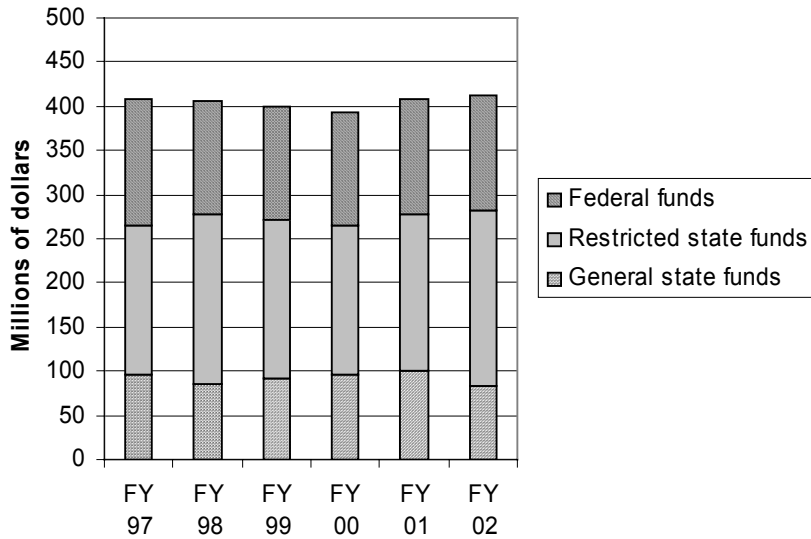
In November 1998, Michigan voters approved the \$675 million Clean Michigan Initiative (CMI) for environmental bonds. NREPA §324.19607. CMI funds are dedicated to pollution prevention, site remediation and redevelopment, and improving surface water quality. CMI provides some DEQ operating revenues but is primarily a source of funding for revolving loan funds and grants.

Michigan DEQ Budget History for Selected Divisions



Source: DEQ 2002 Resource Guide. Michigan Department of Environmental Quality: Lansing

Michigan DEQ Total Budget and Funding Sources

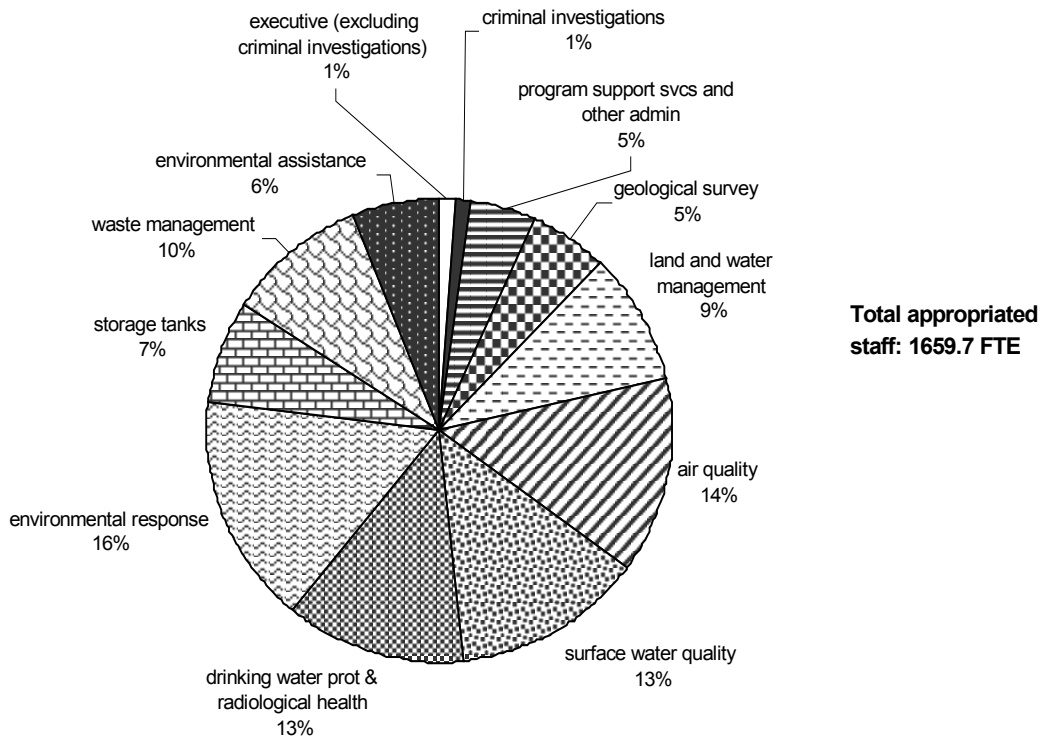


Source: *DEQ 2002 Resource Guide*. Michigan Department of Environmental Quality: Lansing

Staffing

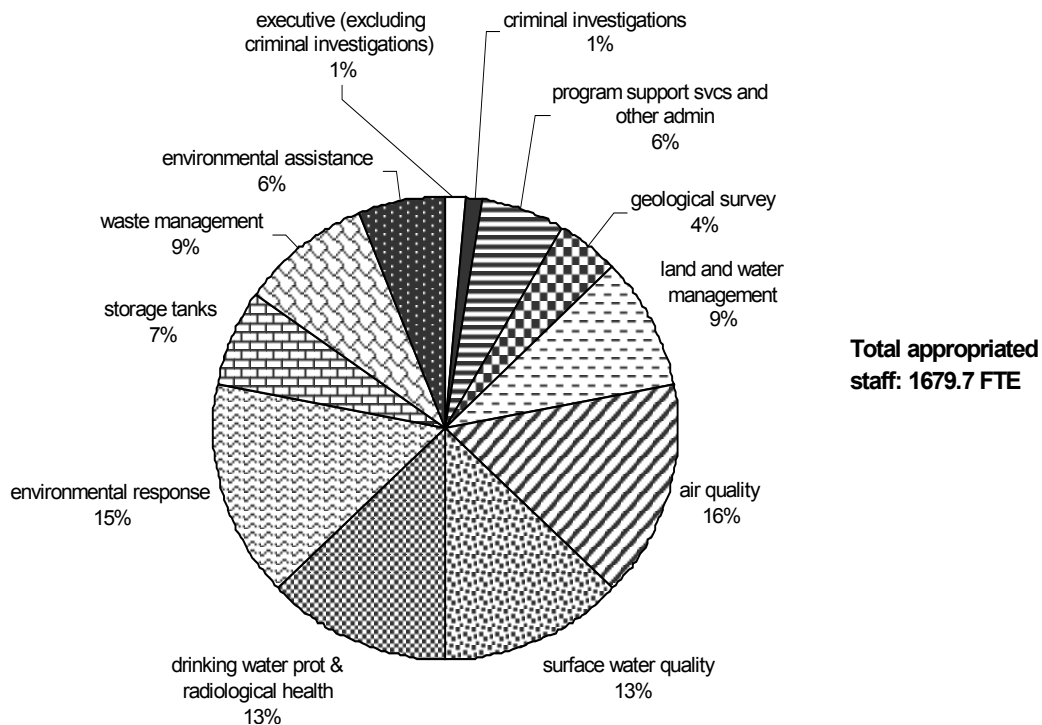
As illustrated by the next two charts, DEQ has experienced modest growth in staff resources over the past several fiscal years. Specifically, the agency staff grew approximately 1.2 percent, or 20 FTEs, between fiscal years 1998 and 2002. The figures also depict modest shifts in staff resources over this period. The Air Quality Division increased its staff while Waste Management and Environmental Response showed commensurate decreases. This change reflects general trends in media-specific regulatory workload. It should be noted that over this time, DEQ's grant administration responsibilities also increased significantly after the Clean Michigan Initiative was passed in November 1998.

MDEQ Staffing, FY 1998



Reflects appropriated staff levels. Source: Act No. 113, Public Acts of 1997, State of Michigan "An Act to Make Appropriations for the Department of Environmental Quality. . ."

MDEQ Staffing, FY 2002



Reflects appropriated staff levels. Source: Act No. 43, Public Acts of 2001, State of Michigan "An Act to Make Appropriations for the Department of Environmental Quality. . ."

C.7 Environmental and Compliance Performance

The figures that follow in this section depict various aspects of DEQ's enforcement and compliance activities. Over the three fiscal years for which data were provided, the figures illustrate generally sustained levels of compliance activity. Over these years, enforcement referrals to the AG's office have formed a significant backlog, while finalized administrative actions have exceeded pending administrative cases, a sign of backlog reduction. The growth in the backlog of criminal referrals appears to have declined substantially during this period.

The figures indicate some differences in compliance activity areas from year-to-year, as well as reliance on different enforcement approaches in different divisions. This difference also reflects both statutory mandates and the timing of compliance initiatives; but the figures indicate no overall diversion of enforcement resources to other areas.

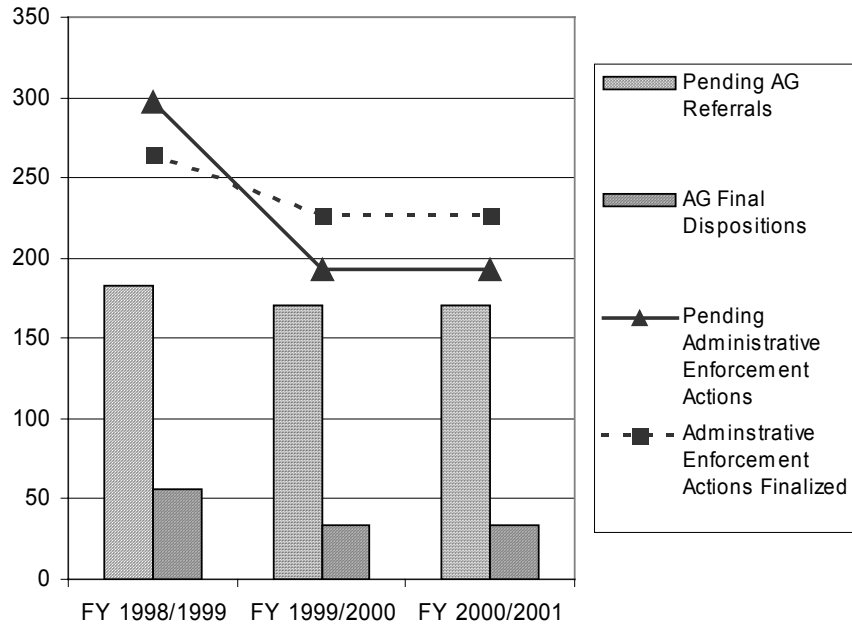
The figures cannot, however, indicate the vigilance or integrity with which DEQ has pursued violators. In this regard, DEQ has been subject to significant criticism from public interest groups regarding the performance of its enforcement and compliance assurance functions, particularly its wetlands, non-point, and UST programs. In particular, two reports have recently been released by a consortium of 14 Michigan environmental groups: *Dereliction of Duty: How the Department of Environmental Quality Endangers Michigan's Environment and Public Health* (October 2000);

and *Continuing Dereliction of Duty: How Michigan's Environmental Agency Defies the Law and the Public* (February 2001).¹²⁴ The reports allege favoritism towards developers over the public interest—including interventions by the executive office in the enforcement and permitting decisions of line staff—as well as diversion of resources away from traditional enforcement actions. Similar criticisms have been leveled by Public Employees for Environmental Responsibility, which conducted a survey of DEQ staff. *See No Evil: The Gutting of Michigan's Wetlands Protections* (1998).

Our study is not intended to assess the particulars of these claims, which deal primarily with the vigilance and integrity of DEQ. Further, the regulatory programs most criticized by these reports (e.g., wetlands) were not the focus of this case study. Rather, this study is intended to identify to what extent the *structural and management prerequisites* of an effective integrated compliance program. The conclusions offered in the main text of this report must be weighed not just against the criticisms summarized above, but also against other comparative reports. It is worth noting, for example, that the Michigan Environmental Council's report *Greening the Governments: Assessing the Environmental Conditions and Performance of the Great Lakes States* (April 2002) found no systemic weaknesses in DEQ's core programs as compared to other Great Lakes states.

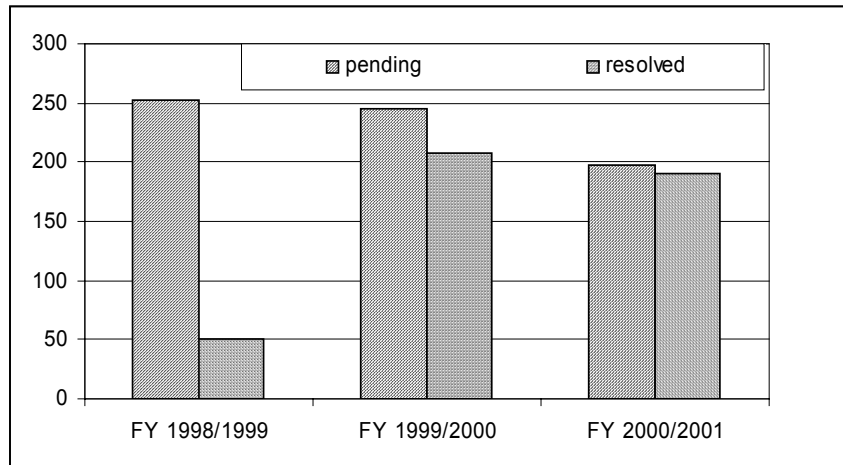
¹²⁴ The organizations releasing these reports were Clean Water Action; Detroiters Working for Environmental Justice; Ecology Center; Environmental Health Watch; Friends of the Detroit River; Groundwork for a Just World; Guild Law Center/Sugar Law Center; Hamtramck Environmental Action Team; Lake Michigan Federation; League of Conservation Voters Education Fund; Lone Tree Council; Michigan Environmental Justice Coalition; Michigan Land Use Institute; Northern Michigan Environmental Action Council; No WASTE; Public Interest Research Group in Michigan; RECAP; Sierra Club, Mackinac Chapter; and the Sisters of St. Joseph Office of Peace and Justice.

DEQ's Civil Enforcement Actions Across All Divisions



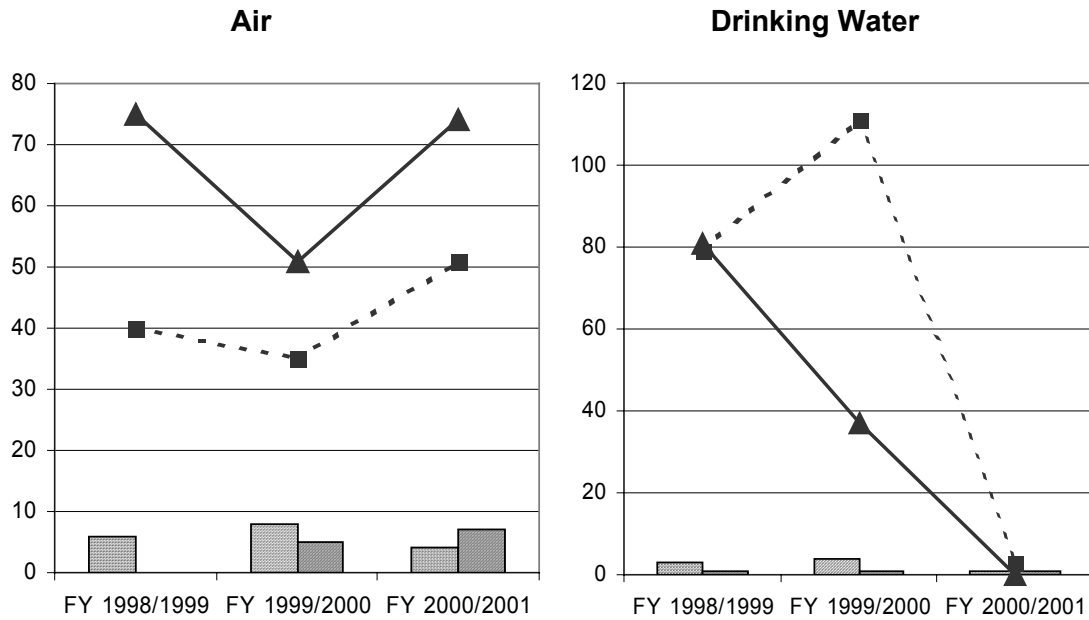
Source: Department of Environmental Quality Enforcement Report, indicated fiscal years (internal document). "Pending cases" measured at the end of each fiscal year.

DEQ's Criminal Enforcement Actions Across All Divisions

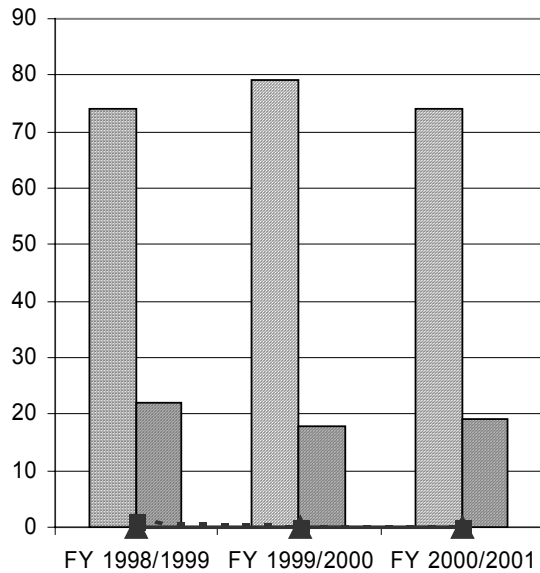


Source: Department of Environmental Quality Enforcement Report, indicated fiscal years (internal document). "Pending cases" measured at the end of each fiscal year; Does not include referrals to Department of Natural Resources.

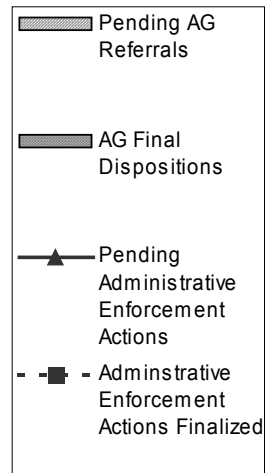
DEQ's Enforcement Actions: Various Divisions



Environmental Response

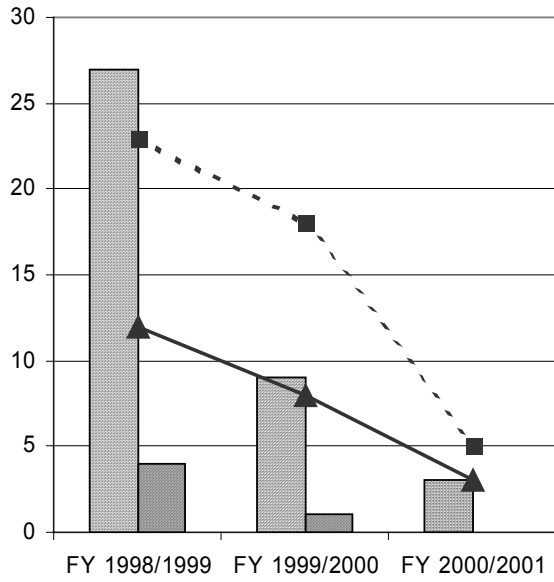


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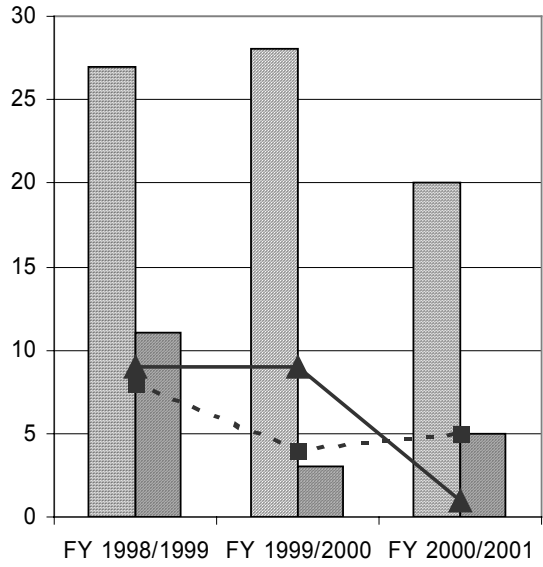


Source: Department of Environmental Quality Enforcement Report, indicated fiscal years (internal document).

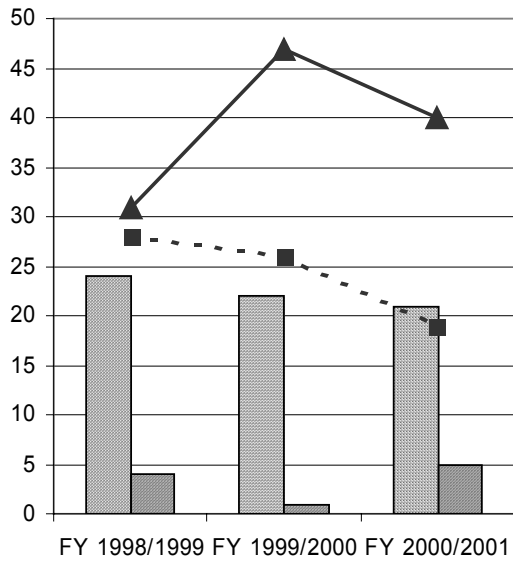
Land and Water Management



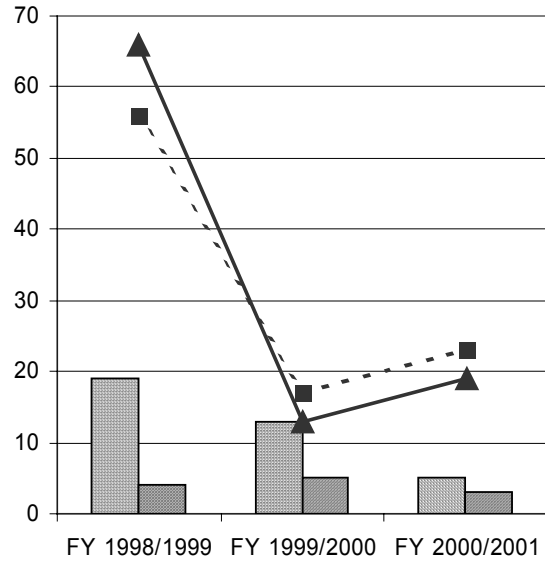
Storage Tank



Surface Water Quality



Waste Management



Source: Department of Environmental Quality Enforcement Report, indicated fiscal years (internal document).

Appendix D: Minnesota Pollution Control Agency

Information in this case study is current as of February 2002.

D.1 Agency Overview

Mission

The Minnesota Pollution Control Agency (MPCA) recently modified its mission statement: “*To help Minnesotans protect the environment.*” This mission statement represents a subtle change from MPC’s longstanding mission statement: “*Protect Minnesota’s environment to secure the quality of life of its citizens.*”¹²⁵ The agency changed its mission to reflect the growing citizen awareness of the importance of protecting *their* environment and the increasing understanding among successful businesses that economic success and environmental protection are compatible.¹²⁶

Internal organization and recent institutional changes

MPCA Board. The Minnesota legislature created the MPCA in 1967 as a nine-member board.¹²⁷ The board consists of a commissioner, who is the administrative head of the agency, and eight members appointed by the Governor. Members must include a representative of organized labor and another person who is knowledgeable about agriculture.¹²⁸ The law requires the board to be “broadly representative of the skills and experience” to carry out the agency’s responsibilities.¹²⁹ The commissioner serves as the chair of the board.

The board has authority to adopt “controversial” rules. At the request of at least one board member or the commissioner, the Board can make final decisions on the need for environmental assessment worksheets or environmental impact statements; the issuance, reissuance, modification, or revocation of permits; and variance from agency rules. The board addresses issues by acting on specific cases rather than establishing broad policy.¹³⁰ The commissioner makes budget decisions, acts on most routine permits, adopts non-controversial rules, and makes decisions on enforcement actions.

MPCA staffing and organization. As the following graph shows, MPCA grew to about 800 staff by the mid-1990s, but recent budget cuts will reduce the staff to just over 700 by 2003.¹³¹

¹²⁵ Minnesota Pollution Control Agency, Five Year Strategic Plan: FY 2001-2005 (November 2000), 1.

¹²⁶ *Ibid.*

¹²⁷ Office of the Legislative Auditor, *Minnesota Pollution Control Agency Funding* (January 2002), 3.

¹²⁸ *Ibid.*, 3-4.

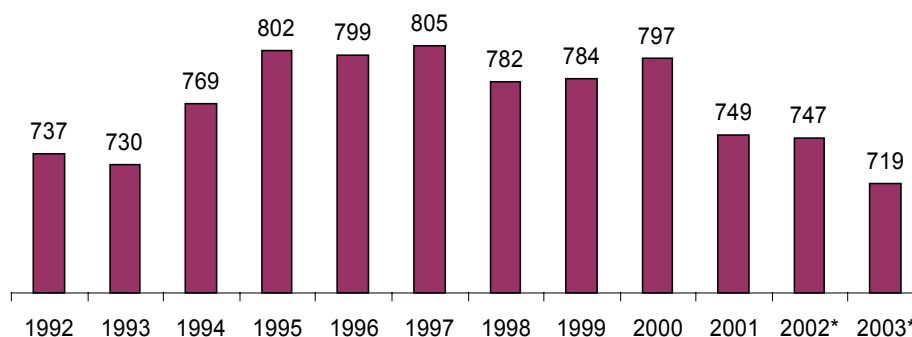
¹²⁹ *Minn. Stat.* § 116.02, subd. 1 and 3 (2000).

¹³⁰ *Minnesota Pollution Control Agency Funding*, 4.

¹³¹ Office of the Legislative Auditor, *Water Quality: Permitting and Compliance Monitoring* (January 2002).

MPCA Staffing

Full-Time-Equivalent Staff, FY 1992-2003



* Projected FTE
Source: MPCA

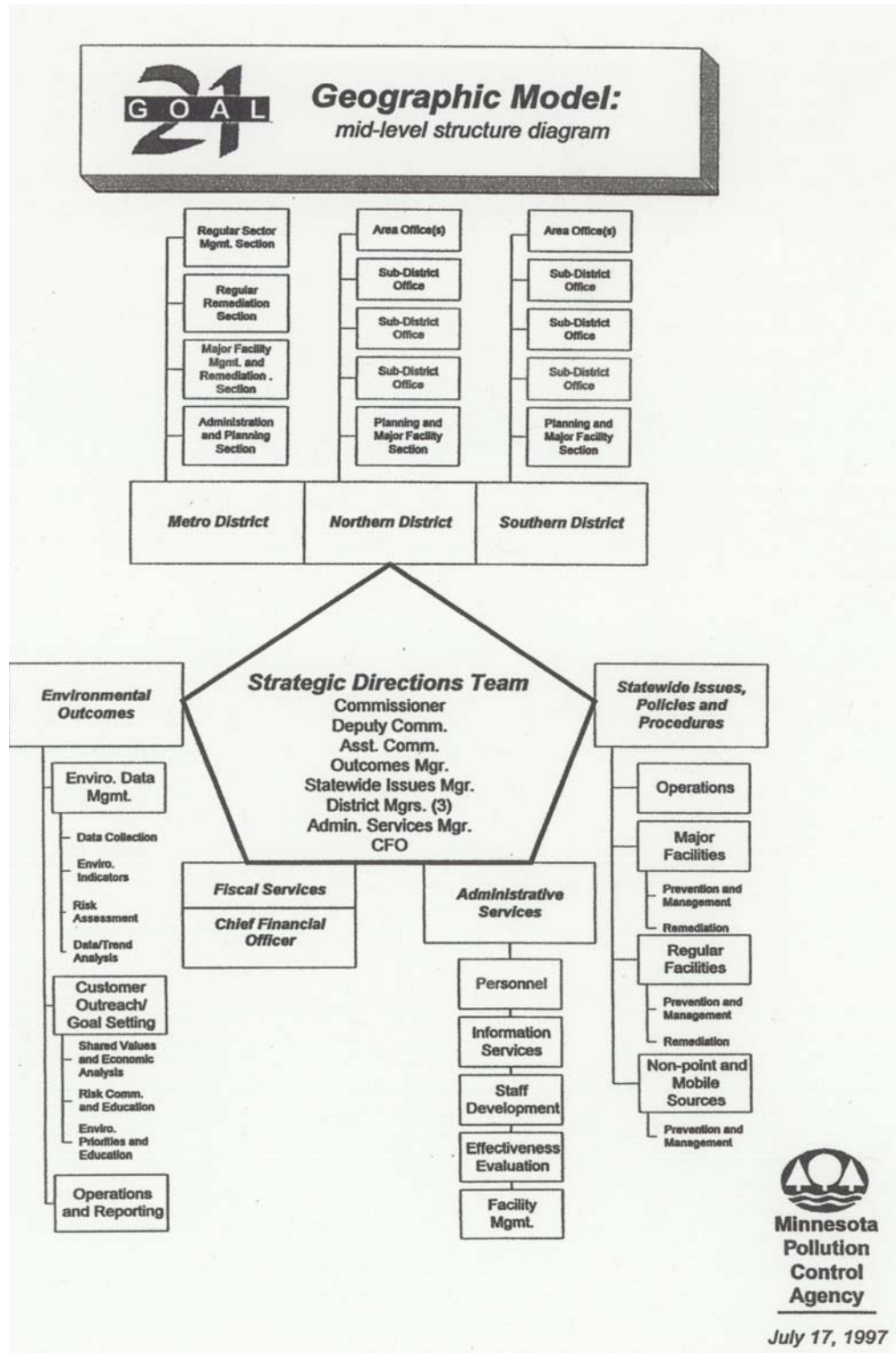
Until 1998, MPCA operated through traditional air, water, and waste program offices with individual staff members who specialize in a single program. The agency maintained five regional offices, but most of the staff was located at its headquarters office in St. Paul. Beginning in the mid-1990s, the agency increasingly emphasized a multi-media approach to environmental problems and began focusing more attention on its regional offices as a mechanism for improving service delivery. MPCA leaders believed that solutions to the non-point pollution problems of the future would require more efforts at the local level. They also believed that partnerships with others outside the agency who had access to tools such as planning and zoning authority, relationships with the agricultural community, and the ability to influence life style choices would be needed to deal with the non-point problems.

This thinking drove a major strategic planning process that started in 1996 and culminated in 1998 with a new organizational structure referred to as “GOAL 21.” “GOAL” was the acronym for Goals, Outcomes, Alliances, and Learning organization. MPCA designed this new approach to (1) identify common goals of the agency and its “customers,” (2) measure environmental outcomes (and spend resources to achieve the best results), (3) form alliances with a broad range of interested parties, and (4) become a “learning organization” that would embrace new ideas and changes.¹³² The new organization’s focus was on finding ways to move large point sources of pollution into a maintenance mode so that more staff time could be spent on non-point sources of pollution. MPCA estimates that point sources are responsible for only 14 percent of Minnesota’s water pollution and 40 percent of its air pollution.

To accomplish these goals, as well as to increase the agency’s multimedia focus and to serve customers at the regional level, MPCA abandoned its media-specific structure in July 1998, creating three new geographic divisions (Metro District, North District and South District) that were expected to handle all permitting and compliance activities on a multi-media basis. MPCA established an additional regional office and two smaller local offices. The agency also created four support divisions—Policy and Planning, Environmental Outcomes, administrative services, and Fiscal Services. See the following organizations chart:

¹³² *Minnesota Pollution Control Agency Funding*, 5.

GOAL 21 Organizational Chart




**Minnesota
Pollution
Control
Agency**

July 17, 1997

The GOAL 21 organizational changes were based on several components of a “shared vision,” including an agency that:

- Is focused on outcomes, not process;
- Addresses causes, not symptoms;
- Is multimedia based;
- Is customer focused (including all customers, not just the regulated community);
- Assumes a proactive stance;
- Is more focused on priorities that produce environmental results;
- Participates and contributes to a statewide sustainable community effort;
- Audits programs’ efficiency and effectiveness in achieving desired outcomes;
- Promotes alliances and partnerships in all facets of its activities;
- Values and uses strategic planning and systems thinking;
- Encourages public awareness and communication to build shared goals and enhance effectiveness and alliance-building;
- Works at the local level with end-users, partners and beneficiaries, and;
- Functions as an organization that learns from its own experiences, as well as the experience of others.¹³³

When the reorganization took effect in July 1998, almost all MPCA employees had new jobs, new office locations, new supervisors, and a new set of responsibilities, frequently involving more than one media. The reorganization, along with earlier efforts to decentralize MPCA’s work force, increased the number of staff at regional offices from 10 percent of the agency’s staff in 1990, to 21 percent in 2001.¹³⁴

While the principles underlying GOAL 21 appear sound and consistent with contemporary thinking about environmental management, the 1998 reorganization resulted in significant operational problems at MPCA. The state’s Legislative Auditor observed: “Whatever the long-term value of these changes, however, the reorganization resulted in considerable short-term disruption and confusion.”¹³⁵ Another report from the Legislative Auditor concluded: “The reorganization strained staff resources, left staff unclear about agency priorities and individual responsibilities, and became a focus of concern among the agency’s external constituents.”¹³⁶

A March 2001, MPCA staff report noted: “As an organization in whole, we do not have a shared understanding of how the agency was designed to work under the reorganization. ... We lack risk-taking and trust. ... We need a better designed set of priorities based on environmental risk. ... Our management and leadership need to be more effective in planning and making decisions. ... We

¹³³ Minnesota Pollution Control Agency, *GOAL 21: Phase III Package* (July 22, 1997), 3.

¹³⁴ *Minnesota Pollution Control Agency Funding*, 5.

¹³⁵ *Water Quality: Permitting and Compliance Monitoring*, 7.

¹³⁶ *Minnesota Pollution Control Agency Funding*, 6.

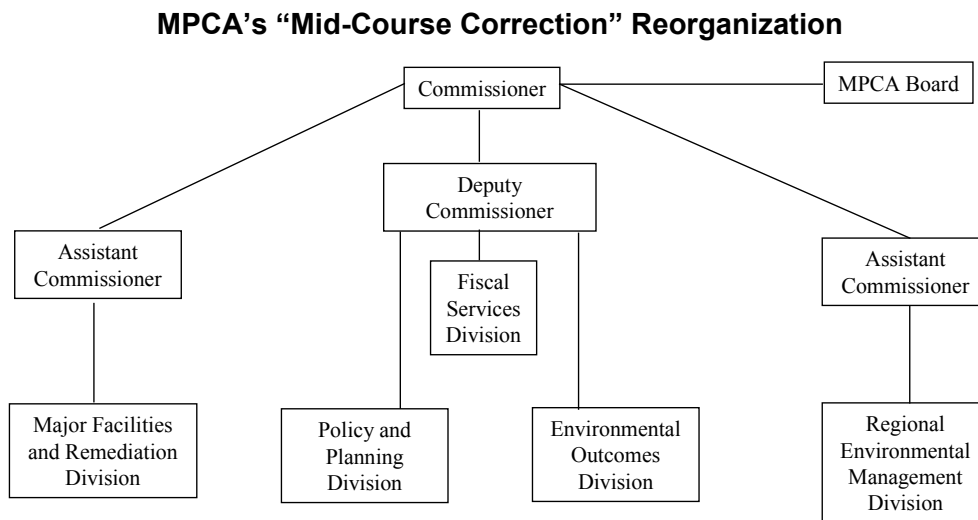
don't have an overall compliance strategy for [major facilities]. ...Our geographic and multi-media approaches are not always working.”¹³⁷

MPCA senior management had anticipated, and consultants to the agency had predicted, that it would take some time and some adjustments before such a major reorganization would function well. To deal with this fact, the agency set up feedback mechanisms to track how the reorganization was progressing. MPCA found that organizing every unit on a multi-media basis did not work well. Every supervisor and every manager could not learn all of the programs and, as a result, they lost track of some parts of some programs. Further, it was hard to reach decisions because so many people attended meetings.

Other lessons learned from the GOAL 21 experience include the difficulty of making dramatic changes in an organization because of the informal agency culture that involves career tracks, friends, contacts, and the sense of commitment to a program; the lack of experience among managers and supervisors to run complex multi-media programs and a complex “matrix” organization; and the limits on funding flexibility to support multi-media programs.

The GOAL 21 planning process was expensive and time consuming, costing over \$1.5 million over a two-year period and consuming hundreds of hours of senior staff time.¹³⁸ Despite this effort, key constituent groups including environmental groups, businesses, local governments, and federal officials told the Legislative Auditor that it was difficult to identify which MPCA staff were accountable for decisions under the reorganization.¹³⁹

Because of these problems, new MPCA commissioner Karen Studders implemented a revised organizational structure in November 2001, referred to as a “mid-course correction,” as shown in the following organizational chart:



¹³⁷ MPCA Majors Design Team, *Majors Design Team Final Report* (March 1, 2001), 7, 13-15.

¹³⁸ *Minnesota Pollution Control Agency Funding*, 7.

¹³⁹ *Ibid.*

This new structure leaves some aspects of the 1998 reorganization intact, including the multi-media policy division and the multi-media environmental monitoring division. The new structure, however, organizes agency permitting and compliance staff into two divisions: the Major Facilities and Remediation Division and the Regional Environmental Management Division.¹⁴⁰ The Major Facilities Division operates core regulatory programs out of the MPCA central office and covers the following areas:

- Air, water and hazardous waste permitting, compliance and enforcement;
- Large above ground storage tanks;
- Superfund;
- Closed landfill cleanup;
- Leaking underground storage tanks;
- Voluntary investigation and cleanup (the state's Brownfields program);
- Small business assistance.¹⁴¹

This division focuses on addressing permitting backlogs and on increasing inspection frequency, with little emphasis on innovation in the short term.¹⁴²

The Regional Environmental Management Division concentrates on solving or preventing environmental problems geographically, and administering programs for smaller, dispersed pollution sources involving small cities, businesses, and individuals.¹⁴³ The programs under Regional Environmental Management include the following:

- Environmental review;
- Minor water quality permitting;
- Asbestos removal and disposal;
- Solid waste permitting, compliance and enforcement;
- Mobile source air pollution;
- Noise;
- Feedlots;
- Total Maximum Daily Load studies;
- The Lake Superior Initiative.

Much of the permitting and compliance work for these facilities is done by MPCA's regional offices. The Regional Environmental Management Division is expected to focus more attention

¹⁴⁰ *Ibid.*, 8-9.

¹⁴¹ Minnesota Pollution Control Agency, MPCA Organizational Changes (November 2001), 1.

¹⁴² Interview with Jim Warner, Major Facilities and Remediation Division Director, March 15, 2002.

¹⁴³ MPCA Organizational Changes, 1.

on innovation so it can find better ways to deal with the large number of smaller facilities within the division's purview.

MPCA's immediate priorities under the new organizational structure are sharply focused on (1) reducing the water permit backlog; (2) completing the issuance of Title V air permits; (3) issuing feedlot general permits; (4) increasing compliance rates, by responding to and reducing incidents of significant non-compliance as defined by U.S. EPA; and (5) finding a long-term and sustainable funding source for its programs.

MPCA's new structure includes a lead staff person for each media program to facilitate better interaction with U.S. EPA's programs and to improve consistency in dealing with media-specific issues within the agency. The new structure also includes two support divisions: the Environmental Outcomes Division responsible for monitoring, identifying threats to human health and ecosystems, establishing agency goals, and reporting to the public; and the Policy and Planning Division that develops strategies and programs to address environmental problems. The Policy and Planning Division also handles rulemaking, pollution prevention, environmental education, environmental justice, and pilot smart growth programs.¹⁴⁴

It is too early to assess whether this new structure will alleviate some of the problems that developed as a result of the 1998 reorganization. Senior agency staff believe that the various reorganizations over the last four years have broken down some of the barriers to working across media that had existed prior to 1998. However, it is clear that MPCA suffered significant productivity losses between 1996 and 2001.

Office of Environmental Assistance. The Office of Environmental Assistance (OEA) is a non-regulatory agency whose director is appointed by and reports to the MPCA commissioner. In the past, the Office was an independent state board that was responsible for waste facility siting and waste reduction policy. Today, the Office focuses on the following areas:

- **Business assistance**—providing resources and technical assistance for preventing waste and pollution, reducing toxicity in products and waste, conserving resources, and properly managing waste
- **Local government assistance**—helping counties develop economically sound and environmentally protective solid waste management systems
- **Environmental education**

Recently, OEA has placed particular emphasis on product stewardship issues that include convening with Iowa, Wisconsin, Massachusetts, Texas, the Midwestern Workgroup on Carpet Recycling, and working with Sony Corporation and Panasonic/Matsushita Electric to test collection strategies for waste electronics.¹⁴⁵

¹⁴⁴ MPCA Organizational Changes, 2.

¹⁴⁵See www.moea.state.mn.us.

D.2 Planning

Goals and goal setting

MPCA establishes goals through its Five Year Strategic Plan¹⁴⁶ and through the agency's Environmental Performance Partnership Agreement (PPA) with EPA Region V.¹⁴⁷ Its November 2000 goals and strategies are set forth in the following chart:

MPCA's Goals and Strategies

Goal 1: Recognize and address threats to Minnesota's environment.	
Strategies	Objectives
1a: Identify and characterize emerging environmental issues. (page 4)	1a1: Use the latest environmental research (global climate change, frogs, endocrine disrupters) in helping Minnesotans protect the environment.
1b: Identify and focus on solving the most important environmental problems. (page 6)	1b1: Improve water quality through use of TMDL process. 1b2: Reduce mercury contamination in lakes and fish. 1b3: Reduce exposure to toxic air pollutants. 1b4: Establish and communicate clear priorities
Goal 2: Prevent, limit and cleanup pollution through effective program design and implementation.	
Strategies	Objectives
2a: Focus on environmental outcomes in program design and implementation. (page 9)	2a1: Establish measurement systems based on environmental results.
2b: Improve environmental program effectiveness. (page 10)	2b1: Implement processes that continually assess and reform programs. 2b2: Operate core environmental programs effectively.
Goal 3: Improve government collaboration.	
Strategies	Objectives
3a: Improve environmental results through enhanced coordination among Executive branch agencies. (page 12)	3a1: Reduce pollution from agricultural sources. 3a2: Capitalize on educational opportunists to raise awareness of the environmental protection system. 3a3: Promote Smart Growth and transportation alternatives. 3a4: Improve coordination of water programs with other state and local organizations. 3a5: Improve coordination of state agencies on mining issues. 3a6: Assess ways to reduce pollution from energy production sources.
Goal 4: Provide responsive services to citizens and stakeholders.	
Strategies	Objectives
4a: Use resources effectively and efficiently. (page 17)	4a1: Establish a performance management system. 4a2: Develop human resource strategies. 4a3: Develop fiscal management strategies. 4a4: Build a learning organization culture.
4b: Conduct MPCA activities to meet citizen and stakeholder needs. (page 19)	4b1: Provide Minnesotans with easy access to environmental information and opportunities to participate in environmental management decisions. 4b2: Manage expectations regarding responsiveness to customers. 4b3: Deliver products and services more effectively by locating staff near customers. 4b4: Deliver services tailored for industry sectors.

¹⁴⁶ Five Year Strategic Plan: FY 2001-2005.

¹⁴⁷ Minnesota Pollution Control Agency and U.S. Environmental Protection Agency Region V, *Environmental Performance Partnership Agreement: October 1, 2001—September 30, 2002* (December 19, 2001).

The PPA establishes four general environmental goals but also includes more specific objectives that are expressed in terms of environmental outcomes. In addition, the PPA includes a series of “activity matrices” that reflect how the activities that MPCA undertakes will meet the performance goals it has established. A few examples of the PPA goals and objectives follow.

- **Goal: To ensure clean, clear air that is protective of human health and the environment.**

Objective: By 2010, reduce emissions of pollutants that contribute to fine particulates and ozone by 20 percent from 2000 levels.

Objective: By 2010 reduce ambient concentrations of air toxics to below health benchmarks.¹⁴⁸
- **Goal: To protect and improve Minnesota’s rivers, lakes, wetlands and ground water so that they support healthy aquatic communities and public uses such as fishing and swimming.**

Subgoal W2: (Minnesota River) To protect, restore and maintain the chemical, physical and biological integrity of waters in the Minnesota River Basin.

Objective: Reduce sediment loading from the annual average load for the period 1989-1992 by 10 percent by 2005, and by 20 percent by 2010.¹⁴⁹

Objective: Manage land to support water-quality (and ecosystem) objectives.

Indicator 1. Land uses compatible with management strategies identified in local wellhead protection plans are achieved.

Indicator 4. On highly erodible land, soil loss is brought to or below tolerable (replacement) level (“T”) by 2010.

Indicator 7. Feedlots are permitted or registered to achieve compliance with feedlot rules by 2009.¹⁵⁰
- **Goal. To protect public health and the environment from existing and future contamination of the land.**

Objective: To manage the risk to human health and/or the environment from contaminated soils at 95 percent of the Voluntary Investigation and Cleanup program sites within two years of a site’s entry into the program.

Objective: To remediate 90 percent of leaking underground storage tank sites by 2005.¹⁵¹
- **Goal. To protect the environment and public health through multimedia approaches which emphasize resource sustainability.**

¹⁴⁸ Ibid., 16-17.

¹⁴⁹ Ibid., 18-19, 22.

¹⁵⁰ Ibid., 27-29.

¹⁵¹ Ibid., 33-34.

Objective: Meet the objectives of the Great Lakes Binational Agreement regarding persistent bioaccumulative toxics and reduction schedules for the specific toxic chemicals:

- a) Mercury: 60 percent by 2000, 80 percent by 2010, 100 percent by 2020;
- b) PCBs: 60 percent by 2005, 95 percent by 2010, 100 percent by 2020;
- c) Dioxin/HCB/OCS: 80 percent by 2005, 90 percent by 2015, 100 percent by 2020.¹⁵²

Strategic implementation

Strategic Plan. The MPCA developed its Five-Year Strategic Plan in response to a Governor's directive that all state agencies must prepare strategic plans. It was developed internally at the agency based, in part, on a series of public meeting that utilized multi-voting technology, which allows participants to vote instantaneously on ideas presented at a meeting. The current plan covers FY01–FY05.

MPCA is currently developing a new strategic plan. The agency has examined each media program to identify four to six goals. The agency intends to share these goals with the public as part of a “conversation” about the future direction of the agency. Then the current Five Year Plan will be replaced by a new plan based on these goals.

General planning process and strategy. MPCA has instituted a work planning process based on the agency's goals and objectives. Divisions are expected to develop their work plans based on these goals and objectives; sections and units within divisions follow a similar process. Finally, the sections and units are expected to translate their goals and objectives into individual work plans that have specific products and timelines.

The agency produces a Quarterly Management Report that includes both output and outcome measures so senior managers can track their progress in meeting MPCA's goals and objectives. The Quarterly Management Report includes sections on notable accomplishments from the past quarter; progress measures for air, water, land, multi-media, administrative, and financial issues; a “find and fix” section that highlights special environmental issues; and high-level operational issues.¹⁵³

Compliance planning and strategy. Prior to 1998, each media program—water, air and land—had separately handled their enforcement actions and issued their own enforcement guidance. None encouraged multi-media enforcement responses. The multi-media reorganization of the agency has necessitated a new approach to compliance planning that is embodied in MPCA's Enforcement Response Plan.¹⁵⁴ The Plan is an internal management tool that regularizes enforcement procedures across all program areas and is designed to assist staff in selecting and implementing MPCA's response to violations of environmental standards.¹⁵⁵ The Plan provides (1) direction on the initial evaluation of non-compliance situations; (2) a description of enforcement options; (3) methodologies for calculating penalties; (4) an internal consultation process for evaluating proposed enforcement actions and penalties, known as “enforcement forums”; (5) approaches for negotiating settlements and procedures for legal actions; (6) the use

¹⁵² *Ibid.*, 38.

¹⁵³ Minnesota Pollution Control Agency and Minnesota Office of Environmental Assistance, *MPCA/OEA Quarterly Report (April-June 2000)*.

¹⁵⁴ Minnesota Pollution Control Agency, *Enforcement Response Plan* (October 19, 1999).

¹⁵⁵ *Ibid.*, 1.

of supplemental environmental projects and the role of environmental audits; and (7) procedures for closing cases.¹⁵⁶ In the recent mid-course correction reorganization, MPCA has retained the Enforcement Response Plan as a key part of its strategy.

Under the old Goal 21 organizational structure, enforcement response was coordinated through “lateral”—across agency programs—enforcement leads. Geographically-based program staff were responsible for enforcement and, in most cases, other program activity across all media. This structure did drive agency staff to view enforcement issues from a multi-media perspective as contemplated by the multi-media Enforcement Response Plan, and it encouraged cross-program communications through the enforcement forums. As a result, MPCA was able to identify inconsistencies in enforcement approaches among different media programs. This information helped to drive the development of the agency’s enforcement response plan that incorporates the best practices from each of the media-specific enforcement programs.

However, other aspects of MPCA’s enforcement program suffered; because no one was specifically accountable for enforcement, there were fewer inspections. Supervisors with no previous enforcement experience often did not understand either the media program requirements or enforcement, leaving them with little ability to assist line staff who also were often working in unfamiliar areas. In addition, implementation of the new organizational structure resulted in dramatically different enforcement workloads across the three regions of the state without corresponding changes in staffing, and there was no method within the new organizational structure for setting statewide enforcement priorities.

Because of these problems, the “course correction” changes created two enforcement supervisors who are responsible for setting enforcement priorities. In addition, MPCA established inspection goals for all staff. Because of the recent staff reductions, the agency is also creating an “enforcement queue” to focus resources on the highest priority cases, but this prioritization process is not yet reflected in the agency’s strategic plans. The queue includes the following tiers:

- Tier 1—high priority violators and significant non-compliance incidents as defined by EPA guidance;
- Tier 2—violations involving significant environmental harm;
- Tier 3—violations that do not involve significant environmental harm.

All Tier 1 cases must be addressed before the agency works on Tier 2 cases, and all Tier 2 cases must be addressed before working on Tier 3 cases. Staff anticipates that existing personnel levels will only allow the agency to focus on Tier 1 and 2 cases. MPCA is also focusing on rebuilding its field inspection presence with the goal of inspecting all major air emissions units within two years. Seventy percent of all major water emissions facilities will be inspected this year, and 100 percent each year thereafter.

MPCA is establishing a training and certification process for all enforcement staff. This new process requires proficiency in the enforcement process, knowledge of the media program for which the person is responsible, and other related skills to be certified at level 1. MPCA also is developing a more advanced level 2 certification.

Accountability mechanisms. MPCA’s accountability mechanisms are its Performance Partnership Agreement self-assessment, its State of Environment Report, the quarterly summary

¹⁵⁶ Ibid.

of enforcement actions available on its web site, and its reporting requirements to the state legislature. The agency has also instituted a monthly management reporting system that is designed to provide senior officials with information on the status of the following issues: the NPDES permit backlog for both major and minor facilities; Title V air permit issuance; timeliness in issuing feedlot permits; the percent of air, water, and waste facilities with no significant non-compliance; total enforcement actions; and the number of citizen complaints in areas where MPCA has reduced its activities as part of its budget reduction process.

D.3 Data, Performance Measurement and Monitoring Networks

Monitoring

MPCA maintains 26 air toxic monitoring stations, including 11 in the Twin Cities region, and six of them in the core cities of Minneapolis and St. Paul. These monitoring stations have identified 10 air toxics that exceed health benchmarks. MPCA has determined that current information warrants action to reduce emissions of four air toxics (formaldehyde, benzene, carbon tetrachloride, and chloroform) and that additional study is warranted for the other six (ethylene dibromide, 1,3-butadiene, acrolein, arsenic, nickel and chromium). Mobile sources contribute 61 percent of the excess lifetime cancer risk from air toxics in Minnesota; area sources (such as woodstoves and drycleaners) contribute 25 percent of the risk; and point sources the remaining 14 percent.¹⁵⁷ The state's ozone monitoring network is currently under evaluation as part of an effort to respond to exceedences of the ozone standard during the summer of 2001—the first such exceedences in over two decades.

MPCA water quality monitoring capacity is quite limited, covering only about 5 percent of the state's waters geographically and only about 19 percent of the total water by quantity. The agency is currently working on water quality indicators of biological integrity. It plans to have biological indicators in place for all 10 major water basins in Minnesota by 2010 and hopes to accelerate that process so that the indicators are in place by 2005.

Environmental and compliance data systems

MPCA uses an integrated data management system called DELTA. The 1998 reorganization slowed implementation of the DELTA system across the agency. Compliance and enforcement data is maintained in a separate system derived from DELTA.

The agency is working on a monitoring and data access initiative for the Upper Mississippi River Basin that would collect additional water quality monitoring data for the upper Mississippi. It will then integrate this information with existing water quality data for the region into a Web-enabled, GIS-based information system that will allow the agency, the public, and local governments to find and view surface-water related information for the basin.¹⁵⁸

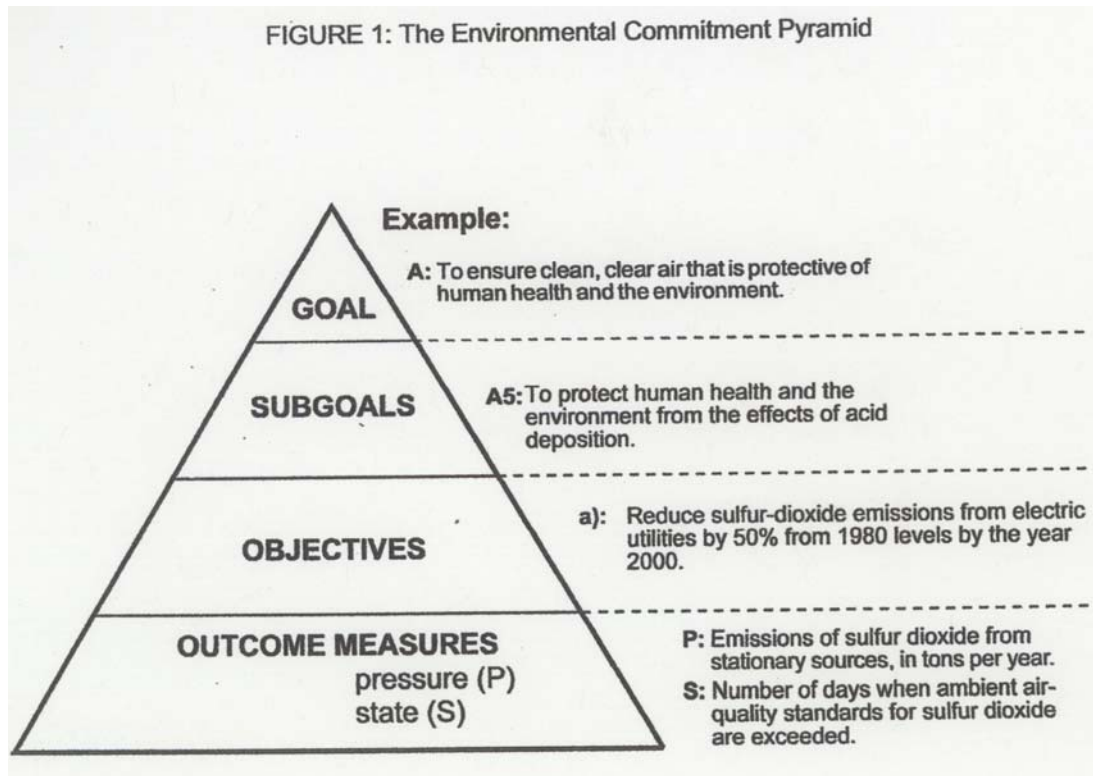
¹⁵⁷ www.pca.state.mn.us/air/airtoxics.html.

¹⁵⁸ Minnesota Pollution Control Agency, Monitoring and data access initiative for the Upper Mississippi Basin (January 19, 2001).

Performance measurement

MPCA has established very specific measurable objectives in its 2001-2002 Performance Partnership Agreement with EPA Region V. These objectives are based on what MPCA calls an environmental commitment pyramid.

Environmental Commitment Pyramid



The MPCA notes in the Agreement that extensive efforts were made to develop measurable objectives but that in a number of situations data is not available to support measurable objectives.¹⁵⁹

Evaluation

MPCA conducts self-assessments under its Performance Partnership Agreement with EPA Region V. The self-assessment reviews in detail several hundred specific activities that are part of the “activities matrix” included in the Agreement. These activities are the steps that the MPCA is taking to achieve the environmental goals and objectives contained in the Performance Partnership Agreement.¹⁶⁰

¹⁵⁹ *Environmental Performance Partnership Agreement*, 12-13.

¹⁶⁰ Minnesota Pollution Control Agency, *FY 2001 Self Assessment on the 1999 Environmental Performance Partnership Agreement* (January 2002).

The “course correction” process involved an extensive in-house evaluation of the GOAL 21 process and substantial adjustments to the GOAL 21 structure.

D.4 Compliance tools and processes

Permits

In 1995, the Governor appointed a Blue Ribbon Task Force on Water Quality Funding, which concluded: “Minnesota’s [water point source] permitting activities are equal in cost to that of other states surveyed yet slightly lower in level of service provided.”¹⁶¹ At the time of the Blue Ribbon Task Force, 34 percent of water permittees were operating under expired permits.¹⁶² Despite goals established by the Blue Ribbon Task Force for reducing the water permitting backlog, as of July 2001, that backlog had reached 41 percent, with a 54 percent backlog for major facilities. Nationally, the average state backlog is 25 percent, and Minnesota’s backlog for major facilities was sixth highest in the country.¹⁶³ EPA’s target for major facility permit backlogs was 10 percent by the end of 2001.¹⁶⁴

The growing permit backlog occurred partly because MPCA issued, reissued, or modified about 9 percent fewer permits in 2001 than it did in 1997. In addition, the agency reduced its resources in the water program by 5 percent each year from 1999 through 2001 at the direction of the legislature. At the same time that several water staff were temporarily reassigned to handle rapidly growing animal feedlot problems. The average time needed to reissue a permit grew from 47 weeks in 1994 (a time period that the Blue Ribbon Task Force thought should be reduced to 36 weeks) to 134 weeks in 2001.¹⁶⁵ The Legislative Auditor concluded: “Delays in the permitting process have the potential to adversely affect environmental quality, business decisions, local development, and MPCA’s credibility as a regulator...”¹⁶⁶

The Legislative Auditor cited budget reductions¹⁶⁷ and MPCA’s 1998 reorganization as two of the key factors in the increasing water permit backlog, noting: “During the reorganization, MPCA officials changed permitting assignments of many individual staff. MPCA staff told us that permits were sometimes assigned to staff who were not familiar with a facility or its relevant rules, and these permits were sometimes ‘lost’ for extended periods or given low priority.”¹⁶⁸ The water permit backlog was one of the reasons cited by MPCA for the mid-course correction reorganization. The agency has established a goal of reducing the major facility water quality-permitting backlog to 38 percent in 2002, and 28 percent in 2003.

MPCA also has a backlog on Title V air quality permits. At the end of 2001, the agency had issued 50 percent of the 345 Title V permits needed for facilities in the state, covering 75 percent

¹⁶¹ *Report of the Blue Ribbon Task Force on Funding Minnesota’s Water Quality Programs* (December 1995), 27.

¹⁶² *Water Quality: Permitting and Compliance*, 15.

¹⁶³ *Ibid.*

¹⁶⁴ *Ibid.*, 16.

¹⁶⁵ *Ibid.*, 17-18.

¹⁶⁶ *Ibid.*, 18.

¹⁶⁷ *Ibid.*, 23.

¹⁶⁸ *Ibid.*, 21.

of the emissions from Title V facilities. EPA has told Minnesota that its pace of issuing Title V permits is too slow and has threatened the state with a determination that the state's air program was inadequate to meet federal standards. As a result, MPCA has committed to complete all Title V permits by the end of 2003.

Inspections

In 1995, the Blue Ribbon Task Force also concluded that the MPCA did fewer water quality inspections than its counterpart agencies in other states. MPCA's for fiscal years 2000 and 2001 called for MPCA to inspect 100 percent of water quality "major" facilities over a two-year period for 70 percent of the majors and one non-major facility for every major facility not inspected. The Blue Ribbon Task Force set a goal of inspecting 39 percent of all water quality permittees annually.¹⁶⁹ MPCA nearly met the EPA goal, inspecting 68 percent of the major facilities over a two-year period; however, this percentage was well below the national average of inspecting 70 percent of major facilities annually. MPCA did not come close to the inspection goal for all permittees, inspecting only 17 percent of permittees in fiscal year 2000, and 12 percent in fiscal year 2001.¹⁷⁰ Further, the number of inspections per employee fell between 1995 and 2000.¹⁷¹

A MPCA staff report in March 2001 identified a number of concerns with the agency's compliance monitoring for major facilities:

We don't have an overall compliance strategy for majors. ...This lack of a strategy results in a lack of clear direction, lack of priority setting and unfocused leadership.

Our enforcement/compliance roles are unclear, and compliance determination is suffering. ...This confusion over roles, stemming in part from a lack of shared understanding of the [organizational] design, results in a lack of coordination. Adding to that is the lack of a champion for compliance determination, providing further potential for the function to slip through the cracks.

*...Staff have some cases that have lingered open beyond reasonable timeframes. This allows violations to continue and corrective actions to not be completed.*¹⁷²

The Legislative Auditor concluded: "MPCA should (1) consider options for increasing its number of inspections per FTE [full time equivalent]; (2) update its "enforcement response matrix" and ensure that staff use it consistently; (3) consider options for reducing the number of instances where permittees fail to submit required compliance reports; and (4) periodically monitor trends in permit violations, inspections completed, and inspector productivity.¹⁷³ The "mid-course correction" reorganization was designed, in part, to address these inspection and enforcement concerns. The agency has established new inspection goals that include inspecting all air majors in a two-year period, 70 percent of the water majors in 2002, and 100 percent of the water majors each year thereafter. The monthly management report tracks progress in meeting these goals.

¹⁶⁹ *Water Quality: Permitting and Compliance Monitoring*, 34.

¹⁷⁰ *Ibid.*, 35.

¹⁷¹ *Ibid.*, 36.

¹⁷² Minnesota Pollution Control Agency Majors Design Team, *Majors Design Team Final Report* (March 1, 2001), 15, cited in *Water Quality: Permitting and Compliance Monitoring*, 44.

¹⁷³ *Water Quality: permitting and Compliance Monitoring*, 45.

Civil enforcement

Civil enforcement tools. MPCA uses a broad range of civil enforcement tools as described below.

- **Letter of warning.** MPCA staff issue Letters of Warning to document violations discovered in an inspection, complaint follow-up, or in reviewing documents submitted by a regulated party. If corrective action is required, the regulated party is asked to correct the action within seven to 30 days.¹⁷⁴
- **Notice of violation (NOV).** MPCA issues a Notice of Violation to document violations that are more serious or more numerous than those that can be addressed by a letter of warning, or in cases that require more than 30 days for corrective action. NOVs contain a description of violations, the required corrective action, and a statement that the MPCA has documented the violations. The NOV may be accompanied by a letter indicating the agency's interest in negotiating a formal settlement agreement (known as a "stipulation agreement") that may include a penalty. MPCA supervisors or managers are authorized to issue NOVs. An NOV that documents violations of an air quality performance test is referred to as a "Notice of Non-Compliance."¹⁷⁵
- **Administrative order.** An Administrative Order (AO) is an enforceable document issued by the MPCA that describes a non-compliance situation and directs the recipient of the order to correct the violation.¹⁷⁶ AOs can require corrective action that takes more than 30 days to implement but cannot assess penalties. AOs are issued by the MPCA commissioner and may be appealed to the Court of Appeals.
- **Emergency powers.** The legislature authorized MPCA to take emergency action "If there is an imminent and substantial danger to the health or welfare of the people of the state, or any of them, as a result of the pollution of air, land, or water."¹⁷⁷ The statute allows either the commissioner to issue an emergency order directing the immediate abatement of pollution or the attorney general to seek a temporary restraining order from a district court.
- **Injunctions.** Violations of the statutes or rules administered by MPCA are considered a public nuisance and may be enjoined in an action filed in district court by the Attorney General.¹⁷⁸ The state may recover litigation costs and expenses in injunctive cases and actions to compel performance if it establishes that a violation was willful.¹⁷⁹
- **Actions to compel performance.** The MPCA can enforce its orders through an action to compel performance filed in district court by the attorney general.¹⁸⁰
- **Field citations.** Field citations can be issued for solid waste violations, spills, and certain underground storage tank violations in amounts up to \$2,000 based on a penalty schedule

¹⁷⁴ *Enforcement Response Plan*, 24.

¹⁷⁵ *Ibid.*, 27-29.

¹⁷⁶ Minn. Stat. §§ 115.03 and 116.07 (2001).

¹⁷⁷ Minn. Stat. § 116.11 (2001).

¹⁷⁸ Minn. Stat. § 115.071, subd. 4 (2001).

¹⁷⁹ Minn. Stat. § 115.072 (2001).

¹⁸⁰ Minn. Stat. § 115.071, subd. 5 (2001).

established in statute. Typical penalties for an individual violation range from \$50 to \$250.¹⁸¹ MPCA inspectors or Department of Natural Resources Conservation Officers can issue a field citation directly to a violator. However, field citations for underground storage tank violations can only be issued if MPCA had previously notified the operator of the violation in writing and given the operator 90 days to correct the violation. Field citations have been a useful tool for minor violations.

- **Red tag.** MPCA may issue a stop-use order (known as a “red tag”) for underground storage tank corrosion, spill and overfill violations, and violations related to leak detection. A red tag attached to a tank prohibits delivery of petroleum products to the tank.¹⁸²
- **Administrative penalty order (APO).** MPCA has authority to impose administrative penalties up to \$10,000 for violations of the statutes and rules administered by the agency.¹⁸³ Once issued, the person or organization cited in the APO has 30 days to appeal the APO by requesting an administrative hearing, filing an appeal in district court, or correcting violations identified in the order.¹⁸⁴ If the violations are corrected within 30 days the penalty must be forgiven unless the violation is a repeat or serious violation.¹⁸⁵ If the violations are not corrected and no appeal has been filed within 30 days, the penalty becomes final and enforceable by a court. Violations must typically be correctable within 30 days to qualify for enforcement using an APO.¹⁸⁶ Forgivable APOs function essentially as a “notice of violation with teeth.” The agency assesses the results of inspections at an enforcement forum before making a decision whether to issue an APO, whether all or part of a penalty is forgivable, and what penalty amount to assess. The forum is designed to assure enforcement consistency across agency programs.

Administrative penalty orders are an important enforcement tool for the MPCA. An average of 118 APOs have been issued each year over the last decade. APOs reached a peak of 193 in 1994, as shown in the following chart:¹⁸⁷

Summary of MPCA’s Enforcement and Penalty Actions

STATE FISCAL YR	ASSIST EVENTS	ATTENDEE #s	CONTACT HOURS	NOV’S	APO’S	STIP’S	SEP’S	TOTAL ENFORCEMENT ACTIONS
75						2		2
76						3		3
77						8		8
78						27		27

¹⁸¹ Minn. Stat. § 116.073 (2001).

¹⁸² Minn. Stat. § 115.071, subd. 7 (2001).

¹⁸³ Minn. Stat. § 116.072 (2001).

¹⁸⁴ Minn. Stat. § 116.072, subds. 6 and 7 (2001).

¹⁸⁵ Minn. Stat. § 116.072, subd. 5 (2001).

¹⁸⁶ *Enforcement Response Plan*, 11.

¹⁸⁷ Minnesota Pollution Control Agency, *Enforcement and Penalty Summary (1975-2001)* (undated).

STATE FISCAL YR	ASSIST EVENTS	ATTENDEE #s	CONTACT HOURS	NOV'S	APO'S	STIP'S	SEP'S	TOTAL ENFORCEMENT ACTIONS
79						34		34
80						46		46
81						29		29
82						22		22
83						20		20
84						35		35
85						80		80
86						53		53
87				117	0	25		142
88				176	1	63		240
89				183	10	47		240
90				186	22	45		253
91				207	31	36		274
92				221	96	25		342
93				294	147	24	6	465
94	253	16,169	115,000	139	193	27	2	359
95	312	15,998	74,000	121	120	26	3	267
96	672	34,943	122,000	78	108	26	7	212
97				131	111	34		276
98				132	97	35		264
99				158	72	13		243
00				192	125	30	11	347
01				159	112	29	8	300

APOs were introduced in 1989 in response to a clear gap in assessments for violations warranting penalties of less than \$10,000. They were designed to be an efficient mechanism to address smaller violations.

Slightly different APO procedures apply to feedlot violations. MPCA must offer to meet with a feedlot operator before making its decision on issuing an APO, and at least 75 percent of any assessed penalty must be forgiven if the feedlot operator uses that money to implement approved measures that mitigate the violation.¹⁸⁸

- **Stipulation agreements.** A stipulation agreement is a settlement of more serious violations that is negotiated between MPCA and a regulated party to resolve violations, establish compliance schedules, and provide for payment of a civil penalty plus any stipulated penalties for future violations. Stipulation agreements typically are reviewed in an enforcement forum and are essentially contracts between the agency and regulated

¹⁸⁸ Minn. Stat. § 116.072, subd. 13 (2001).

party based on the agency's decision to forego litigation.¹⁸⁹ They are typically not entered as consent decrees in district court. Stipulation agreements are the second most common penalty-imposing enforcement tool used by MPCA, averaging about 27 per year over the last decade, as shown in the chart above.

- **Civil judicial penalties.** MPCA is authorized to seek civil penalties of as much as \$25,000 per day of violation of statutes and rules administered by the agency through an enforcement action in district court.¹⁹⁰ This authority forms the basis for penalty settlements in stipulation agreements. Historically, very few MPCA enforcement cases have been filed in district court because most cases are settled through stipulation agreements.
- **Permit revocation.** MPCA has the authority to revoke permits based on: unresolved non-compliance issues; failure to disclose fully facts relevant to the issuance of the permit; a finding by the commissioner that the permitted facility or activity endangers human health or the environment and that the danger cannot be removed by modifications to the permit; failure to pay applicable fees; and failure to pay penalties assessed against the permittee. The commissioner initiates a permit revocation by notifying the permittee who then has 30 days to request a contested hearing.¹⁹¹
- **Bad actor statute.** MPCA may refuse to issue, renew, or transfer a solid or hazardous waste facility permit or an animal feedlot facility permit if the agency determines that the permit applicant does not have sufficient expertise and competence to operate the facility or if the agency determines there are circumstances demonstrating that the permit applicant may not operate the facility in conformance with state law.¹⁹² Among the factors that the agency may consider in making this decision are the past compliance record of the permit applicant, including any criminal convictions that involved the applicant during the last five years.¹⁹³
- **Audit legislation (“Environmental Improvement Program”).** Minnesota law encourages regulated parties to conduct environmental audits of their facilities, establish environmental management systems (EMS), report any violations identified through the audits or the EMS, and promptly correct the violations by deferring enforcement, **but only if** a qualifying report is submitted to the agency. Most penalties are waived if the regulated party demonstrates that the violations have been corrected within 90 days after submitting the report or in accordance with an approved compliance schedule.¹⁹⁴ The qualifying report must disclose all violations discovered in the audit or through the EMS, include a commitment of the owner or operator to correct the violations, and provide a description of the steps the owner or operator has taken or will take to prevent future violations.¹⁹⁵ To qualify for penalty waiver, the facility owner or operator must not have

¹⁸⁹ *Enforcement Response Plan*, 34.

¹⁹⁰ Minn. Stat. § 115.071, subd. 3 (2001).

¹⁹¹ Minn. Stat. § 115.03, subd. 1(e) (2001).

¹⁹² Minn. Stat. § 115.076 (2001).

¹⁹³ *Ibid.*

¹⁹⁴ Minn. Stat. §§ 114C.20-.28 (2001).

¹⁹⁵ Minn. Stat. § 114C.22, subd. 2 (2001).

had been subject to an MPCA penalty in the past two years.¹⁹⁶ The penalty waiver **does not apply** to criminal violations, violations that were first identified through an agency inspection, violations that caused serious harm to human health or the environment, violations of administrative or judicial orders, violations that result in a substantial economic benefit that results in a competitive advantage to the violator, and violations identified through a legally mandated reporting requirement.¹⁹⁷

The number of audit reports submitted to MPCA has varied a great deal from year-to-year:

Audit Activity For All Facility Categories

	1995	1996	1997	1998	1999	2000	2001	Totals
# of Audits Submitted	4	134	677	150	50	15	41	1071
# of Facilities Identifying Violations	3	111	365	106	38	12	29	664
# of Facilities Identifying No Violations	12	12	12	12	12	12	12	12

In 1997, both the underground storage tank program and the automobile repair CFC program used the audit legislation to encourage self-audits as an alternative to inspections, which accounts for a significant percentage of the many audit reports that year. Facilities that participate in the audit program and maintain a clean enforcement record for two years qualify for MPCA's "Green Star" award, recognizing their good compliance procedures and record.¹⁹⁸

The audit legislation establishes an evidentiary privilege for audit-related documents prepared by a regulated facility **if** the facility has submitted an audit report to the MPCA and has corrected any identified violations or is meeting the requirements of a compliance schedule.¹⁹⁹

Criminal enforcement

All environmental violations in Minnesota are also misdemeanor crimes punishable by a \$700 fine and up to 90 days in jail.²⁰⁰ Misdemeanor environmental violations are rarely prosecuted in Minnesota. Minnesota law also treats a number of environmental violations as felonies, including unlawful treatment, storage, transportation, delivery and disposal of hazardous waste; knowing violation of a water pollution effluent standard or water pollution permit standard; introducing a hazardous substance into a sewer system or publicly-owned treatment works knowing that the substance is likely to cause personal injury or property damage; making material false statements

¹⁹⁶ Minn. Stat. § 114C.22, subd. 1 (2001).

¹⁹⁷ Minn. Stat. § 114C.24, subds. 3, 5 (2001).

¹⁹⁸ Minn. Stat. § 114C.25 (2001).

¹⁹⁹ Minn. Stat. § 114C.26 (2001).

²⁰⁰ Minn. Stat. § 115.071, subd. (2001).

in permit applications, reports and other similar documents; tampering with monitoring equipment; failure to report the release of a hazardous substance; or knowing violation of a national air emission standard for a hazardous substance or an emission standard for a hazardous air pollutant.²⁰¹

MPCA typically investigates about a half-dozen environmental crimes cases each year. A few MPCA staff members have been trained to participate in environmental crimes investigations at the Federal Law Enforcement Training Center. The agency works with local FBI agents and an EPA environmental crimes investigator stationed in Minneapolis on criminal investigations. County attorneys prosecute state environmental crimes, while cases involving federal criminal violations are handled by the United States Attorney. The Minnesota Attorney General's Office does not have original jurisdiction in criminal cases.

Compliance and beyond-compliance incentives

MPCA's goals for its innovation efforts are to:

- Improve environmental performance;
- Reduce burdens on regulated facilities;
- Improve public access to information and public understanding of environmental releases; and,
- Encourage facility operators to take personal responsibility for the environmental effects of their operations.

MPCA has been involved in several innovation efforts beginning with U.S. EPA's Project XL developed as part of President Clinton's Reinventing Government effort. EPA designed Project XL to test new ways of providing flexibility to companies that commit to achieving superior environmental performance. MPCA submitted one of the first XL applications, proposing that EPA delegate MPCA the authority to develop and manage several innovations projects. Although EPA never approved the MPCA proposal, the agency was enthusiastic about the XL concept. MPCA proposed its own version of Project XL in 1996.²⁰² The authorizing legislation provides it is Minnesota policy to develop environmental regulatory methods that, among other things:

- Encourage facility owners and operators to innovate, set measurable and verifiable goals, and implement the most effective pollution prevention, source reduction, or other pollution prevention strategies for their particular facilities;
- Encourage superior environmental performance and continuous improvement toward sustainable levels of resource usage and minimization of pollution discharges;
- Reward facility owners and operators that reduce pollution to levels below what is required by applicable law;
- Increase public participation and encourage stakeholder consensus in the development of innovative environmental regulatory methods and in monitoring environmental performance of projects.

²⁰¹ Minn. Stat. § 609.671 (2001).

²⁰² Minn. Stat. §§ 114C.01-.19 (2001).

Minnesota's XL legislation provides the policy support for innovation that many have argued is needed at the federal level for innovation to flourish at EPA. However, MPCA has not used this authority except in conjunction with a few federal/state innovation projects. Environmental organizations supported the final version of the Minnesota XL legislation.

MPCA worked closely with 3M Corporation in developing an XL permit for a facility in Hutchinson, Minnesota. After nearly two years in development, 3M withdrew the application citing the long delays and difficulties in obtaining U.S. EPA's approval. The agency also worked closely with the Andersen Corporation, the nation's largest manufacturer of windows, on an XL proposal that was ultimately approved by EPA after over two years of negotiations. Because of the long timeframes associated with XL projects, the difficulty in reaching agreement on projects with U.S. EPA, and the high transaction costs associated with the projects, MPCA has publicly stated that it will not participate in any future XL projects.

A former MPCA Commissioner played a central role in developing the EPA/ECOS Innovations Agreement. The agreement establishes a process for states to propose innovation ideas to EPA and timeframes for making decisions about the proposals. MPCA recently finalized an agreement with IBM Corporation based on the EPA Innovations Agreement. The IBM agreement is designed to test the idea of eliminating routine inspections at "low risk" facilities, which have minor environmental impacts and a good compliance record, in part driven through the use of environmental management systems, if the facilities agree to third party audits of their EMSs and public disclosure of the results of the audit.²⁰³

Because of the time involved in earlier innovations projects, the MPCA commissioner established a 100-hour budget for staff time spent on the IBM agreement, in addition to the two staff at MPCA who are assigned to the agency's innovation efforts. While the agency stayed within the budget, the project consumed a great deal of the innovation staff's time and took over a year to complete. MPCA staff found that routing projects through the EPA/ECOS process was almost as difficult as the XL process. The agency staff hope, given the effort put into the project, that the IBM concept can form the basis for a new rule that will streamline the air permit process.

The near-term priorities for MPCA innovations efforts are to finalize the Andersen Corporation XL permit, complete work on the IBM permit, and then look for ways to meet the agency's water permit backlog through innovative approaches to permitting, perhaps using a water basin approach. MPCA's Majors and Remediation Division will focus almost all of its efforts over the next year or more on its permit backlogs and on improving inspection and enforcement performance, leaving little time for innovation efforts, which the agency sees as inefficient based on experience to date. The Regional Environmental Management Division is expected to focus more time on innovative approaches since most of the facilities are subject to state, rather than federal, regulation thus giving MPCA more freedom to innovate and adopt the new approaches needed to deal with the numerous small pollution sources.

Compliance assistance

Minnesota provides compliance assistance through five different mechanisms: (1) MPCA's program staff, (2) its Small Business Assistance Center, (3) MPCA's Customer Assistance Center, (4) the Minnesota Technical Assistance Program housed at the University of Minnesota, and (5) the Office of Environmental Assistance.

²⁰³ www.pac.state.mn.us/hot/ibm-emspermit.html.

Program staff. MPCA historically provided significant compliance assistance through its media program staff. However, recent budget cuts have reduced the capacity to provide assistance through this mechanism. The agency still provides some assistance through inspections and over the phone, one MPCA manager estimates that 80-85 percent of a compliance inspection is a form of compliance assistance. But it no longer has program staff dedicated to providing compliance assistance, except for a part-time staff person in Duluth who works with the Great Lakes Initiative. The Minnesota Technical Assistance Program is the principal remaining vehicle for assistance to regulated parties.

Small Business Assistance Center. MPCA maintains a three-person Small Business Assistance Center that is focusing on autobody and auto repair businesses, dry cleaners, halogenated dry cleaning solvents, chromium electroplating and anodizing, fiberglass fabricators, and wood finishers.²⁰⁴ The Center publishes an *Environmental Guide for Small Businesses in Minnesota*.²⁰⁵ This table provides information on the activities of the Center:²⁰⁶

Small Business Assistance Center Activity Levels

Compliance Assistance Measures	1995	1996	1997	1998	1999
Calls	2718	3640	2447	1797	1722
Site visits	87	112	65	126	109
Seminars	15	35	49	NA	10

Customer Assistance Center. The MPCA commissioner established in 1999 a three-person phone-in customer assistance center designed to answer basic questions about agency programs. The agency set up this center to reduce the number of calls that go to permitting and enforcement staff so that they could focus more on their core functions. The Center handled 3,287 calls in 2000.²⁰⁷

Minnesota Technical Assistance Program (MnTAP). The Minnesota Technical Assistance Program, established in 1985, is funded through the Minnesota Office of Environmental Assistance from hazardous waste generation fees. Its 13 staff, housed at the University of Minnesota, provide both telephone and on-site technical assistance focused on source reduction, process changes, and pollution prevention opportunities. Priority sectors for assistance include dry cleaning, electronics, fiberglass/plastics, food processing, health care, machining, metal fabricating, painting, printing, vehicle maintenance, and wood finishing.

Office of Environmental Assistance. The Office of Environmental Assistance provides pollution prevention and waste reduction advice, and resources for businesses including “design for the environment” approaches, recycling in the work place, procurement ideas, mercury reduction techniques, and product stewardship methods.

²⁰⁴ www.pca.state.mn.us/programs/sbap_p.html.

²⁰⁵ www.pca.state.mn.us/industry/sbeg/index.html.

²⁰⁶ Environmental Council of the States, ECOS Compliance and Enforcement Survey.

²⁰⁷ *Ibid.*

D.5 Informing and Interacting with the Public

Public reporting

MPCA publishes a state of the environment report that “is not meant to be an all-inclusive report on the state of the environment. Rather, it highlights conditions and trends...”²⁰⁸ The report contains basic information on environmental issues such as climate change and brownfields cleanup, identifies activities that contribute to pollution such as increased use of automobiles and increased per capita generation of garbage, provides simple graphs showing key environmental trends, discusses regional environmental issues, and describes some of the steps individuals and organizations can take to reduce pollution problems.

The Agency also maintains a very detailed web site at www.pca.state.mn.us. Among the features of the site is a page called “Your Backyard,” designed to help citizens find information that may interest them and actions they can take to protect the environment. However, the page does not provide neighborhood specific information about contaminated sites or pollution. The web site also has a feature called “Bridges” that links viewers to web sites covering a number of environmental issues related to the work of the MPCA.

MPCA’s web site maintains a summary of enforcement actions that is updated every three months at www.pca.state.mn.us/newscenter/enforcement.html, a practice initiated in early 2002. The summary includes the name of the company or individual subject to enforcement, location of the facility, nature of the violation, penalty type, and a contact person at MPCA.

Minnesota requires facilities that must report emissions as part of the federal Toxics Release Inventory (TRI) to prepare pollution prevention plans.²⁰⁹ The Office of Environmental Assistance uses public data from these plans, as well as other TRI information, to prepare an annual Pollution Prevention Evaluation Report. That report provides statewide trends in toxic emissions and pollution prevention activities related to these emissions.²¹⁰

Public involvement

MPCA participated in several Governor’s forums on the environment held throughout the state in the late 1990s. MPCA has also experimented with new methods for involving stakeholders in agency decisions, such as multi-voting technology that allows participants at public meetings to enter instantaneously their positions on issues by using an electronic voting device, including meetings to develop the agency’s five-year strategic plan. Still, most public involvement with MPCA processes occurs through formal public notice and comment procedures for environmental reviews, rulemaking, and permitting. For big construction projects, the MPCA is urging companies to identify public concerns in advance and to work with communities early in the permitting process.

As part of its effort to identify more stable funding sources, MPCA recently worked with St. Cloud State University to conduct a statistically accurate survey of citizen’s attitudes about the agency and their priorities for environmental protection. Based in part on this information,

²⁰⁸ Minnesota Pollution Control Agency, *Minnesota Environment 2000*, inside cover page.

²⁰⁹ Minnesota Toxic Pollution Prevention Act, Minn. Stat. §§ 115D.07 and 115D.08 (2001).

²¹⁰ Minnesota Office of Environmental Assistance, *Pollution Prevention Evaluation Report 2002* (March 2002).

MPCA will convene a funding task force in late summer 2002 that will include a range of stakeholders and the legislators that head the state environmental committees.

D.6 Financial and Human Resources

Budget

MPCA's total budget in 2001 was \$95.8 million, up about 10 percent on an inflation-adjusted basis from its 1992 budget:

MPCA's Budget Table

Table 1.1: MPCA Total Expenditures, FY 1992-2001

	Fiscal Year	Expenditures (in millions)	
		Actual	Inflation-Adjusted
Adjusted for inflation, MPCA's spending grew during the past decade.	1992	\$66.4	\$ 84.1
	1993	68.7	84.4
	1994	69.0	82.6
	1995	71.4	83.1
	1996	76.0	86.1
	1997	78.5	86.5
	1998	84.0	91.0
	1999	86.9	92.5
	2000	88.9	91.9
	2001	95.8 ^a	95.8 ^a

NOTE: The inflation-adjusted column shows expenditures in 2001 dollars, adjusted using the CPI-U indices of the U.S. Bureau of Labor Statistics.

^aIncludes actual expenditures and certified encumbrances.

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

As the following table indicates, MPCA funding is derived from several sources.

MPCA's Funding Sources²¹¹

Table 1.5: Source of Funding for Staff Positions, by Media Area, January 2001

Fund	Water Quality	Air Quality	Ground Water	Hazardous Waste	Non-Media
Environmental	22.3%	73.1%	28.3%	23.0%	15.7%
Federal	28.0	24.1	18.3	37.5	20.8
General	43.1	1.2	1.1	9.3	16.5
Miscellaneous Special	1.5	1.2	3.5	2.0	36.7
Petrofund	0.1	0.1	0.1	28.0	0.5
Public Facilities Authority	4.4	0.1	0.1	0.0	0.0
Solid Waste	0.2	0.1	48.5	0.2	9.6
State Government Miscellaneous	<u>0.4</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>
TOTALS	100.0%	100.0%	100.0%	100.0%	100.0%

MPCA's environmental fund is made up of facility fees (air, water and hazardous waste) and penalties assessed by the agency. Air quality fees are adjusted for inflation, which has allowed fee amounts to grow by 39 percent since 1993. Water fees are not adjusted for inflation and have remained relatively steady only because more facilities are paying the fees today than in 1993. As a result, water fees will cover only 58 percent of the water program's permitting, compliance determination, and enforcement costs in 2002.²¹² Hazardous waste fees have declined somewhat over the past decade, using inflation-adjusted dollars, in large part due to a 10 percent decline in the number of fee-paying generators. Although MPCA is required to assess hazardous waste fees in amounts that cover the cost of the program, the agency has not raised enough fees to cover program costs, in part due to concerns expressed by the legislature about fee increases.²¹³

²¹¹ *Minnesota Pollution Control Agency Funding*, 15, Table 1.5

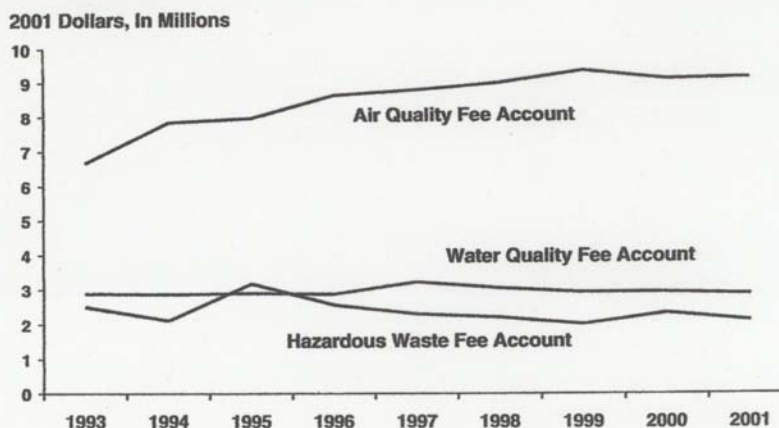
²¹² *Minnesota Pollution Control Agency Funding*, 24-27.

²¹³ *Ibid.*, 27-28.

MPCA's Fund Revenues

Figure 2.1: Inflation-Adjusted Revenues in the Air, Water, and Hazardous Waste Fee Accounts, FY 1993-2001

Air quality fee revenues grew 36 percent, while water quality fee revenues were flat, and hazardous waste fee revenues declined.



Fee reform has been a controversial issue in Minnesota for some time. A funding crisis for water programs prompted the legislature to create a Blue Ribbon Task Force on Water Quality Funding in 1995.²¹⁴ The Commission's recommendation failed to resolve the problem, however. MPCA proposed fee reforms to the legislature in 2001, but the reforms were not adopted. Minnesota's Legislative Auditor conducted a major review of MPCA funding during 2001 and recommended that "The Legislature should clarify state laws that define which categories of MPCA activities should be funded with fees. It should then consider any adjustments to fee levels necessary to comply with these laws."²¹⁵ The Auditor also recommended that MPCA report to the 2003 Legislature on "plans for implementing and financing 'total maximum daily load' requirements."²¹⁶

Staffing

The following chart shows the program areas where MPCA staff are assigned. MPCA has experienced significant staff reductions over the last two years. Most of the staff reductions were driven by the fiscal year 2002-2003 budget proposal that anticipated a 66-person staff reduction, eliminating 11 small programs and downsizing 11 other programs.²¹⁷ The staff changes were proposed because of reductions in federal grants, lagging fee revenues, and increased operating costs, principally due to staff costs.²¹⁸ MPCA's staff-related per employee costs increased by

²¹⁴ *Ibid.*, 27.

²¹⁵ *Ibid.*, ix.

²¹⁶ *Ibid.*

²¹⁷ *Ibid.*, 15-16.

²¹⁸ *Ibid.*, 15.

almost 33 percent between 1996-2001, in part because of lower turnover and hiring freezes that resulted in fewer entry level staff.²¹⁹

MPCA's Staffing Distribution

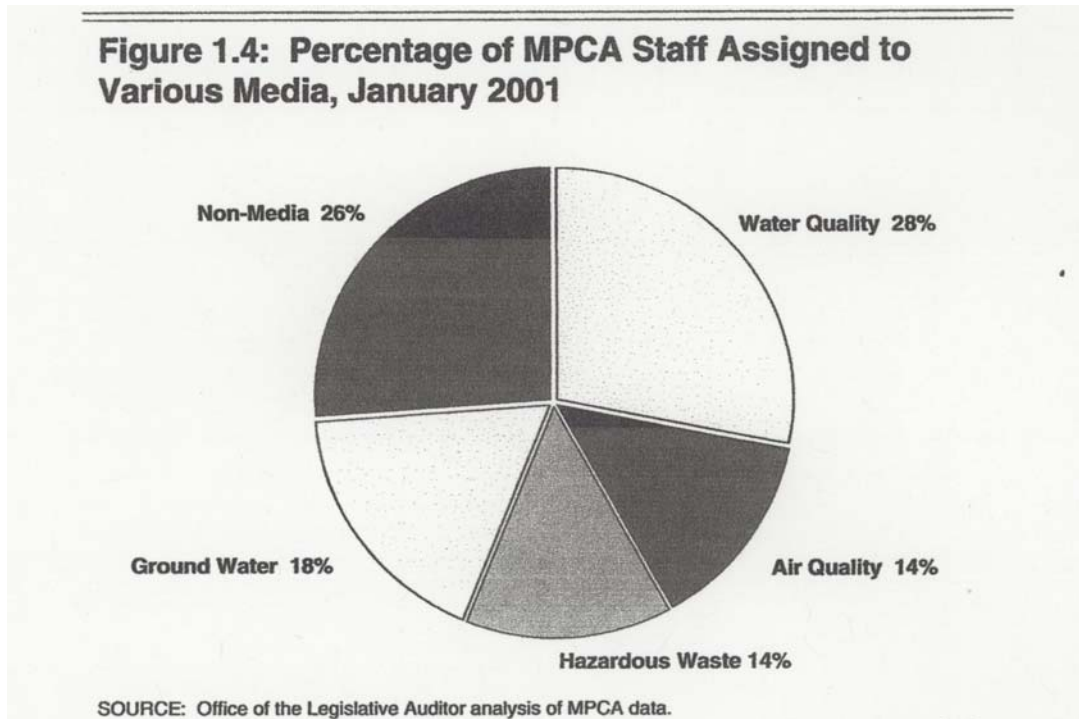


Table 1.3: MPCA Staff by Core Activity, January 2001

<u>Core Activity</u>	<u>Number of FTE</u>	<u>Percentage of FTE</u>
Assistance	111.4	14.6%
Compliance Determination	58.9	7.7
Enforcement	36.2	4.7
Monitoring/Evaluation	72.6	9.5
Permitting	85.9	11.2
Policies and Rules	51.3	6.7
Program-Specific Activities	34.6	4.5
Remediation	87.1	11.4
Administration/Other	<u>226.0</u>	<u>29.6</u>
TOTALS	764.1	100.0%

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

MPCA's productivity declines resulted from the previous GOAL 21 reorganization and are reflected in growing permit backlogs and declining inspection and enforcement numbers, plus the need to focus the recent reorganization on core functions such as reviewing permits and inspecting facilities.

²¹⁹ Ibid., 17-19.

Because of staff shortages, Region V has been assisting MPCA with some tasks including inspection of hazardous waste facilities. EPA inspectors are conducting about half of the large quantity hazardous waste generator inspections (27 facilities).

D.7 Environmental and Compliance Performance

MPCA's enforcement and penalty numbers from 1995 are summarized in the chart for section D.4. The legislature granted administrative penalty order authority to the agency in 1988 for hazardous waste violations. In 1991, the legislature extended APO authority to all MPCA programs. Enforcement numbers dropped noticeably in FY 1999 (which began on July 1, 1998), the same date that the GOAL 21 reorganization was launched. The agency issued fewer APOs in FY 1999 than at any time since the authority was extended to all agency programs, and stipulation agreement numbers were lower than at any time since 1977. Enforcement numbers have increased since 1999, but remain well below the peak enforcement year of 1993.

The decline in enforcement in FY 1999 is most noticeable in the number of administrative penalty orders and stipulation agreements for the air and water programs as the table below indicates:²²⁰

MPCA's Enforcement Activities

Enforcement mechanism	FY 1995	1996	1997	1998	1999
AQ APOs	46	56	43	33	24
AQ stipulations	10	21	12	14	8
WQ APOs	27	30	31	32	6
WQ stipulations	3	8	13	10	3

²²⁰ Environmental Council of the States, ECOS Enforcement and Compliance Project data.

Appendix E: Wisconsin Department of Natural Resources

E.1. Agency overview

Mission

Wisconsin DNR's mission statement provides that *“our mission is*

- *To protect and enhance our natural resources: our air, land and water; our wildlife, fish and forests and the ecosystems that sustain all life.*
- *To provide a healthy, sustainable environment and a full range of outdoor opportunities.*
- *To ensure the right of all people to use and enjoy these resources in their work and leisure.*
- *To work with people to understand each other's views and to carry out the public will.*
- *And in this partnership consider the future and generations to follow”*

Internal organization

Wisconsin DNR is one of only a few combined environmental/natural resources agencies remaining in the country. In 1996, the agency was reorganized to focus more on customer assistance and program integration. This reorganization emphasized a geographic and watershed structure that gave more authority to the regional offices. DNR is composed of seven divisions: Air and Waste, Land, Forestry, Water, Customer Assistance and External Relations, Administration and Technology, and Enforcement and Science. The Water Division includes unique combination of the fisheries and water quality staff who manage all water and habitat issues, including the federal and state pollution discharge elimination systems under the Clean Water Act, as well as the watershed and wetlands staff who focus more on natural resources management issues. In addition, there are five regional offices. DNR is governed by Wisconsin statutes, Chapters 280 through 299, and the corresponding Natural Resources Administrative Code, Chapters 1 through 845.

Wisconsin Natural Resources Board

The Wisconsin Natural Resources Board sets policy for DNR and exercises authority and responsibility in accordance with the governing statutory provisions. The Governor appoints the seven-member board with the advice and consent of the state Senate. Three members must be selected from each of the northern and southern portions of the state, and one member serves at large.²²¹ The Board meets monthly, except for July and November, to oversee the activities of four DNR divisions: Air and Waste, Water, Customer Assistance and External Relations, and

²²¹ Wis. Stat. § 15.34 (2001).

Enforcement and Science. Until 1995, the Board appointed DNR's Secretary; then the legislature shifted appointment authority to the Governor.

Institutional changes

Several important institutional changes have occurred at DNR since 1996, including reorganization into new divisions, focus on customer assistance, significant emphasis on voluntary programs such as the Cooperative Environmental Assistance Pilot Project and the Green Tier program, creation of new regions, increased delegation of authority to these regions, authority of the Governor to appoint the Secretary, budget decreases in 1996 close to 10 percent, and elimination of the Public Intervenor. The Public Intervenor had been created as an independent office in DNR to represent the public interest. DNR is currently examining how the service elements of the agency should be organized and financed.

E.2. Planning

Goals and goal-setting

DNR has a well-developed strategic planning process that is becoming more integrated into the day-to-day activities of the agency's staff. This process increasingly is based on specific performance goals. DNR's strategic plan was last revised on June 30, 1999. The philosophy underlying the plan is that the DNR must find more cost-effective ways to deal with remaining environmental concerns (such as non-point water pollution) and new environmental issues (such as feedlots and climate change). For example, the non-point program has evolved to rely on performance standards and cost-sharing incentives to help sources meet these standards. The plan also reflects concerns about the effectiveness of federal regulatory programs. DNR's Cooperative Environmental Agreement Pilot Project is designed to experiment with new ways of doing business.

The strategic plan includes the following general goals:

- **Making people our strength.** People, organizations, and officials work together to provide Wisconsin with healthy, sustainable outcomes. In partnership with all publics we find innovative ways to set priorities, accomplish tasks, and evaluate successes to keep Wisconsin in the forefront of environmental quality and science-based management.
- **Sustaining ecosystems.** The state's ecosystems are balanced and diverse. They are protected, managed, and used through sound decisions that reflect long-term considerations for a healthy environment and a sustainable economy.
- **Protecting public health and safety.** Our lands, surface waters, groundwater, and air are safe for humans and other living things that depend upon them. People are protected by natural resources laws in their livelihoods and recreation.
- **Providing outdoor recreation.** Our citizens and visitors enjoy outdoor recreation and have access to a full range of nature-based outdoor recreational opportunities.

The Strategic Plan also identifies several key values:

- Manage natural resources as ecosystems.

- Respect people.
- Share responsibility.
- Value our employees.
- Work together.
- Respect the earth.
- Prevent environmental harm.
- Hold ourselves accountable.
- Assure quality management.
- Adapt to future needs.

Strategic implementation

Strategic implementation plan. DNR’s strategic implementation plan is designed to link its strategic plan with everyday work done by the DNR staff. The implementation plan relies on an “Ecosystem Management Decision Model for environmental, social, and economic decision making that effectively engages the public to collectively make decisions within the context of guiding laws and institutions.”²²² During 2002, DNR updated its strategic plan to reflect new sub-objectives and identify successes. The Implementation Plan sets out specific objectives for DNR’s four strategic goals. The following are two examples of objectives from the protecting public health and safety goal that reflect fairly specific performance requirements.

- **Objective 1:** Establish standards to protect human, fish and wildlife health and forests, prairies and wetlands, etc. from pollutants in the air, soil, sediment, groundwater and surface water.
 - a. By 2007, revise at least 10 standards per year and adopt 5 new standards per year beginning in 2001.
 - b. By 2007, 90 percent of Wisconsin’s population served by public water supplies receives drinking water that meets health standards established as of January 1, 2000.
 - c. By 2002, develop a policy framework to reduce pollution from *Persistent Bioaccumulative Toxics* (PBT) substances.
 - d. By 2007, reduce by 10 percent the quantity of PBTs and other toxics introduced into the environment as compared to year 2000.
 - e. By 2002, develop a monitoring plan and by 2007, complete the fieldwork needed to determine 1) the degree and extent of PBT contamination, and 2) what additional fish and wildlife consumption advisories are needed.
 - f. By 2007, in partnership with the Division of Health, increase public awareness of the health risks of consuming fish and wildlife from 54 percent of the 1998 sample to 70 percent or more of the Wisconsin Public.

²²² DNR, Strategic Implementation Plan (July 2000).

- g. By 2007, decrease the number of impaired river miles and lake acres by 10 percent as compared to year 2000.
- **Objective 2:** Use DNR reporting systems, inspections and other compliance tools to ensure businesses, municipalities, and citizens comply with laws and regulations to restrict pollutant discharges, emissions and releases.
 - a. By 2006, increase by 10 percent the compliance rate of facilities inspected for air emission, hazardous waste, and point source discharges as compared to 2000.
 - b. By 2007, eliminate ozone standard violations.
 - c. By 2002, establish a baseline compliance rate for facilities or activities meeting non-point source performance standards and by 2007, increase by 15 percent the compliance rate as compared to the baseline year.
 - d. By 2007, reduce by 35 percent the number of contaminated properties subject to DNR jurisdiction as compared to the base year of 2000.²²³

Work planning process. The work planning process is used to apply the strategic implementation plan to the day-to-day work of DNR's staff. The process is based on a plan, do (carry out the task), check (evaluate whether the activities were successful), and act model. Work planning was completed in August 2001 for the biennium that ends in June 2003. About 35 percent of the hours in the work plan (about six million hours per year) are linked to the plan's sub-objectives and objectives.²²⁴

Strategic progress report. This report is only in the planning stage. It is designed to replace the Secretary's Quarterly Report that focused on the Secretary's priorities rather than DNR's strategic goals. The Strategic Progress Report will focus on the four strategic goals and will incorporate the agency's quarterly compliance report and quarterly budget report.²²⁵

Environmental management systems. Environmental management systems (EMSs) are systematic methods for identifying the environmental impacts of an operation, establishing goals for reducing that impact, measuring activities so that changes in operation can be clearly tracked, auditing operations to determine whether goals are being met, and assuring that only senior managers pay attention to the results of the audit so that appropriate changes in operation are likely to be made. Hundreds of companies in the United States and thousands worldwide, as well as many governmental operations, now utilize EMSs to improve their operations. The most common model for environmental management systems is ISO 14001, the standard developed by the International Standards Organization.

DNR is piloting the use of a EMSs based on ISO 14001 for its own operations. The principal reasons for instituting this process were to "practice what it preaches," because DNR has made EMSs a mandatory element of some of its key voluntary programs, including the Cooperative Environmental Assistance Pilot Projects and the Green Tier. DNR also wants to gain experience with EMS implementation in order for agency staff to gain a better understanding of how to use EMSs in the context of DNR's corporate leadership programs. DNR plans to implement its EMS

²²³ Ibid., 10-12.

²²⁴ Memorandum from Mark McDermid to Lee Paddock dated December 6, 2001.

²²⁵ Ibid.

in three stages, starting with a pilot phase designed to familiarize agency staff with EMS concepts and to gain better understanding of how EMSs can improve management of the agency.

In its EMS testing, DNR is focusing on the core agency functions of (1) operations, (2) regulatory compliance, (3) policy development, and (4) innovations. The pilot phase of the EMS project is directed at the first three of these functions by doing EMSs for two facilities (a state park and a fish hatchery), regulatory compliance related to foundry benzene emissions, and perhaps public involvement. Each pilot site has its own implementation team, and DNR has its core EMS team. DNR plans to seek third-party certification of its EMS and has already registered the EMS for its state park. DNR sees the EMS process as a way to identify environmental aspects of their work and set goals related to those aspects.²²⁶

Performance Partnership Agreement. Wisconsin participates in the National Environmental Performance Partnership System. NEPPS is a joint planning system between U.S. EPA's regional offices and participating states designed for states to participate in identifying priorities that are specific to their environmental problems, rather than simply following EPA dictated priorities in implementing delegated federal programs. DNR's 1999-2001 Performance Partnership Agreement sets out several joint EPA/state priorities:

- **Lake Michigan and Lake Superior.** Jointly develop strategies related to implementing Lake-wide Management Plans, projects to implement those strategies, and reporting systems to present the state of lake's ecosystems, priority issues, and results of management projects.
- **Mississippi River.** Areas of focus include sedimentation and effects upon habitat and aquatic communities; localized sediment contamination, usually located downstream of urban areas; introduction of excess nutrients into the watershed; floodplain management/manipulation; impacts associated with navigation; and habitat loss.
- **Mercury total maximum daily load pilot project.** An investigation of the best methods for understanding and reducing mercury air emissions that may contaminate lakes, rivers, and other waterbodies nationwide. The project is designed to develop TMDLs for waterbodies contaminated by mercury.
- **Quality management plan.** DNR commits to prepare a single over-arching integrated quality management plan that will cover all EPA funded programs.
- **Innovative strategies.** Region V and DNR commit to collaborate in developing an innovative strategies/proposal review and approval process.²²⁷

The PPA also includes several guiding principles related to enforcement including:

- To manage for environmental results which support agency goals;
- To encourage and maintain compliance through the most effective application of the full spectrum of tools;
- To use our respective resources and abilities as efficiently as possible;
- To institute joint, advance planning for the most effective coordination; and

²²⁶ www.dnr.state.wi.us/org/secretary/EMS/index.html.

²²⁷ DNR and the EPA Region V, 1999-2001 Performance Partnership Agreement

- To enhance open and honest communication between our agencies.

Innovations Memorandum of Agreement. On January 25, 1999, Region V and DNR entered into a Memorandum of Agreement²²⁸ to pursue regulatory innovations, the first of its kind in the country. The agreement provides that EPA and DNR agree on the need to experiment with new approaches for improving our nation’s environment and that “these new approaches can help us identify cleaner, cheaper, smarter ways to ensure that all Americans enjoy a clean environment and healthy ecosystems.” The partnership is designed to foster “an environment in which DNR innovations are supported and encouraged in order to develop better ways of achieving environmental and ecosystem goals. As the front-line delivery agent for environmental programs, WDNR has first hand knowledge of the environmental problems, facility issues, and community concerns that puts it in a unique position to develop practical solutions that are environmentally protective as well as efficient and effective. EPA seeks to support WDNR’s efforts with timely input and consultation that demonstrates openness and flexibility while observing requirements of the federal statutes.” Two programs fall under this agreement—the Environmental Cooperation Pilot Project and the proposed “Green Tier” program.

The MOA includes several principles:

- **Experimentation:** Innovation involves change, new ideas, experimentation and some risk of failure. Experiments that will help us achieve environmental goals in better ways are worth pursuing when success is clearly defined, costs are reasonable, and environmental and public health protections are maintained.
- **Environmental Performance:** Innovations must seek more efficient and/or effective ways to achieve our environmental and programmatic goals, with the objective of achieving a cleaner, healthier environment and promoting sustainable ecosystems.
- **Smarter Approaches:** To reinvent environmental regulation, regulators should seek creative ways to remedy environmental problems and improve the environmental protection system, and be receptive to innovative, common sense approaches.
- **Stakeholder Involvement:** Effective stakeholder involvement produces better innovation projects and catalyzes public support for new approaches. Stakeholders must have an opportunity for meaningful involvement in the design and evaluation of innovation. Stakeholders may include other state/local government agencies, the regulated community, citizen organizations, environmental groups, and individual members of the public. Stakeholder involvement should be appropriate to the type and complexity of the innovation proposal.
- **Measuring and Verifying Results:** Innovations must be based on agreed-upon goals and objectives with results that can be reliably measured in order to enable regulators and stakeholders to monitor progress, analyze results, and respond appropriately.
- **Accountability/Enforcement:** For innovations that can be implemented within the current regulatory framework, current systems of accountability and mechanisms of enforcement remain in place. For innovations that involve some degree of regulatory flexibility, innovators must be accountable to the public, both for regulatory requirements

²²⁸ Memorandum of Agreement between the Wisconsin Department of Natural Resources and the United States Environmental Protection Agency concerning Implementation of the Joint State/EPA Agreement to Pursue Regulatory Innovation and the Wisconsin Environmental Cooperative Pilot Program (March 25, 1999), available at www.dnr.state.wi.us/org/caer/cea/ecpp/epa/moa.htm.

that replace existing regulations and for meeting commitments that go beyond compliance with current requirements. Regulators will reserve full authority to enforce alternative regulatory requirements to ensure that public health and environmental protections are maintained, and must be willing to explore new approaches to establish accountability for beyond-compliance commitments.

- **State-EPA Partnership:** Wisconsin and EPA will promote innovations at all levels to increase the efficiency and effectiveness of environmental programs. We must work together in the design, testing, evaluation, and implementation of innovative ideas and programs, utilizing each other's strengths to full advantage.

Targeting: Drinking water program. Because of the high demand on DNR's staff to complete drinking water rules, enforcement took somewhat of a "backseat." To target their work on high priority enforcement cases, the drinking water program is now planning to make more effective use of their database to identify:

- Systems not in compliance;
- When and by whom the system was inspected;
- Whether the system operator has received contract technical assistance; and
- Whether the system operator has received technical assistance and is still not in compliance (making the operator a priority target for enforcement).

The program is in the initial stage of formulating the data reports and database queries necessary to generate these reports. This new approach will replace the usual three- to five-year inspection cycle for all facilities required by SDWA guidance, with inspections based on the targeting factors.

DNR is also increasing county involvement in the inspection process to increase the available inspection resources. The program has contacted 12 counties to determine their interest in conducting SDWA inspections and taking samples in the course of their regular inspections of transient water suppliers, such as transient bars and restaurants. The counties would be paid \$80 for each sample taken. The drinking water program sees this sampling approach as a form of technical assistance because many transient water suppliers would be unlikely to collect and sample their water on their own.

E.3. Data, performance measurement, and monitoring

DNR started to investigate program measurement almost a decade ago as part of the state's work on comparative risk because DNR wanted to find out whether risk reduction is in fact occurring. However, DNR did not place a strong emphasis on measurement until 1999, when it began preserving its Strategic Implementation Plan that relies on objectives and measures. Staff still describe the agency as "data rich but information poor."²²⁹ Individual media programs within DNR are at different stages in improving their collection and use of performance data.

²²⁹ Interview with Tim Mulholland, February 19, 2001.

Drinking water program. The program has a seven-year-old Oracle-based data system that publishes monitoring results from each drinking water system on the web, updated daily as new monitoring reports are received. This information is transferred electronically to EPA Region V. Maintaining this system requires two full time employees, nearly \$100,000 a year in contractor costs, and up-to-date desktop computers for all program employees.

Watershed management program. In the early 1990s, the Water Bureau had a 50 percent permit backlog. Although the legislature turned down a request for additional staff to address the backlog, it did fund a new data management system for the bureau. The new system (designated SWAMP) is also used to supply information for EPA’s water database. The system began to come online in 1999, and will eventually include:

- All of the policy guidance for water permits to help assure ready access to, and consistent application of, the guidance by regional permit engineers;
- A permit application component that will ultimately be available on the DNR web site;
- Automatic links to discharge and monitoring data and reports;
- A system to automatically perform compliance reviews by comparing permit conditions to monitoring results;
- The ability to generate violations printouts to target inspections and enforcement activity.

Air Bureau. The various air data systems are not fully integrated at this point, although the bureau is working in that direction, to the extent that adequate funding can be secured. The program’s compliance database has been updated to DNR’s standard for database software, and DNR has applied for grants to enable electronic transfer of compliance data to EPA’s databases.

E.4. Compliance tools and processes

Civil enforcement

General overview. Wisconsin uses a “*stepped enforcement process*,” similar to the escalating enforcement process used by most state environmental agencies. According to DNR, the goal of stepped enforcement is to prevent or minimize damage to public health and the environment by resolving problems as quickly as possible and with a level of enforcement that’s appropriate for the specific circumstances of each case.

Stepped enforcement begins with contact between a DNR Environmental Protection Specialist and a regulated individual or company. Minor violations that pose no immediate threat to public health or the environment but nonetheless must be resolved, are handled by documenting the problem and asking for compliance to be achieved within a specific period of time. The DNR commonly documents these problems in a *Notice of Non-compliance (NON)*.

If compliance is not achieved, the next step is to issue a *Notice of Violation (NOV)*. DNR may also schedule an *enforcement conference* between the alleged violator and DNR staff to discuss the specifics of the violation and seek agreement on actions the violator will take to return to compliance. In appropriate circumstances, DNR may also issue *enforcement orders* or *refer* a case to the Attorney General’s Office for prosecution.

Cases that appear to involve willful or negligent conduct may be assigned to an Environmental Warden for investigation and possible criminal prosecution. In a few situations, Environmental Wardens are authorized to issue citations. State Conservation Wardens may also issue citations for certain types of environmental violations.

Situations that present an imminent threat to public health or the environment can bypass the less formal steps and may be immediately referred to obtain court ordered compliance and penalties. While penalties may be recovered through a negotiated settlement of an enforcement action, they may only be imposed when a case is referred to the Attorney General.

The environmental enforcement program at DNR consists of 12 regional environmental enforcement specialists, six environmental wardens, and three administrative positions. Although DNR headquarters has a Director of Environmental Enforcement, enforcement decisions are made at the regional level. Regions did not regularly report to the central office on their enforcement activities until about one year ago.

DNR can only recover penalties through a settlement agreement or a civil or criminal referral to the Attorney General. Civil penalties recovered through a referral are deposited in the state's School Fund, whereas civil penalties recovered in a settlement can go to DNR. Civil cases and certain criminal cases are prosecuted by the District Attorney for the county in which the violation occurred. Enforcement is handled by the Wisconsin Department of Justice through a formal referral process. About 12-15 criminal cases were initiated each year by DNR in the early 1990s, but since 1996, the number of criminal referrals has averaged only seven. In part, this decline appears to reflect the changing nature of cases with fewer hazardous waste midnight dumping cases today compared to the early 1990s.

Civil Enforcement Tools:

- **Compliance certification.** The Bureau of Watershed Management sends each publicly owned waste water treatment plant (POTW) a “compliance maintenance report” every year. This report serves as a compliance self-assessment for the facility. The governing body for the POTW must certify that the statement of the operator related to compliance is accurate and must include a process for resolving any identified violations. The bureau staff scores the report as a means of prioritizing follow up with facilities.
- **Notice of Non-compliance (NON).** As the first enforcement step in the compliance assurance program, a facility is formally notified in writing of the non-compliance with state statutes and of specific violations. The facility is requested to respond in writing. The NON is usually drafted by field staff.²³⁰
- **Notice of Violation (NOV).** This formal letter to a facility from a regional enforcement specialist documenting the violation requests written response, asks for additional information, and frequently schedules a formal enforcement conference with the facility.²³¹
- **Animal Waste Notice of Discharge (NOD).** This compliant-driven process can result in a DNR determination that an animal waste pollution discharge is significant. If so, DNR issues a Notice of Discharge (NOD) that requires correction of the problem. If the NOD does not result in compliance, the DNR requires the operator to obtain a state WPDES

²³⁰ DNR, WPDES Permit Compliance Assurance Program.

²³¹ Ibid.

permit that specifies all of the requirements to abate the discharge and come into compliance.²³²

- **Administrative orders.** DNR has authority under several statutes to issue non-penalty administrative orders to abate environmental problems.²³³
- **Field citations.** DNR conservation officers have authority to issue field citations (similar to traffic tickets) for a number of minor solid waste environmental violations, including littering, recycling, stormwater management, discharges of deleterious substances to waters of the state, and improper disposal of lead acid batteries, major appliances, yard waste and a variety of recyclable materials such as aluminum cans, corrugated paper, glass and tires.²³⁴ Penalties are \$50 for an initial violation, \$200 for a second violation, and up to \$2,000 for subsequent violations. DNR is also authorized to issue field citations for several asbestos violations²³⁵ and violations related to improper management of ozone-depleting chemicals.²³⁶ DNR and the Attorney General's Office jointly proposed citation authority in the mid-1990s for small violations, and the legislature did authorize the use of citations for asbestos and well-drilling violations.
- **Administrative penalty orders.** DNR has the authority to assess administrative penalties only for violations of the Safe Drinking Water Act (SDWA) program. The statute requires DNR to first attempt to settle any alleged violations before issuing a penalty order and, if an agreement cannot be reached, to provide at least 60 days' notice to the water system owner or operator before the order can be issued unless an emergency exists.²³⁷ Penalties may be from \$10 to \$1,000 per day of violation up to \$25,000 for water systems that serve more than 10,000 people. Smaller systems have a maximum daily penalty of \$500. The federal SDWA now requires the states to have this authority before they are approved to operate the SDWA program.

Agency staff identified two initial concerns with using APOs. First, they noted a concern that some regulated entities already see the DNR as “judge, jury and executioner.” In other words, the agency is believed to be too powerful already without the additional power to issue unilateral penalty orders. The second concern is that DNR's effort to issue an APO is similar to preparing a formal enforcement referral to the Attorney General's Office making it hard to see any real advantage in using APOs. The Attorney General's Office has also expressed concern that broad APO authority might duplicate the Attorney General's authority and thereby reduce public accountability for enforcement by cutting the Attorney General out of the process. DNR has now issued five APOs and, with this experience, is finding that it is a useful tool for resolving violations.

- **Referrals.** Other than minor violations addressed by either field citation authority or APOs for the drinking water program, the only way DNR can impose a penalty for an environmental violation is through a referral to the state Department of Justice where enforcement decisions are based on factors such as the severity of the violation and

²³² Wis. Stat. Ch. 283; NR 243.

²³³ Wis. Stat. §§ 281.19, 281.20, 285.85, 289.93 (2001).

²³⁴ Wis. Stat. § 287.95 (2001).

²³⁵ Wis. Stat. § 285.86 (2001).

²³⁶ Wis. Stat. § 285.59(7) (2001).

²³⁷ Wis. Stat. § 281.99 (2001).

compliance history of the regulated entity. For some environmental programs, such as hazardous waste, the only method for obtaining penalties is through the Department of Justice.

Wisconsin uses a formal referral process that requires the agency staff to prepare a referral package that is transmitted to DOJ. Referrals result in filing a legal complaint in district court. All referrals are resolved through court orders even if an agreement is reached prior to trial. The court may impose monetary penalties, impose a restitution order, require clean up, and enjoin violations. Violations of a court order can be prosecuted as contempt of court.²³⁸

Deferred enforcement. DNR's Environmental Cooperation Pilot Program requires participating companies to conduct periodic performance evaluations. They must report any violations found in the evaluation and commit to correct the violations within 90 days or within a compliance schedule approved by the DNR. DNR is required to defer any enforcement on these violations for at least 90 days or the term of the compliance schedule, and enforcement must be waived if the violations are corrected within the required time. DNR's proposed Green Tier legislation also prohibits a civil action to collect penalties if violations at a facility covered by the program are disclosed in an EMS audit and corrected within 90 days of the date of the audit, or within the time frame set out in a compliance schedule approved by the agency. Assembly Substitute Amendment 1 to Assembly Bill 479—the Green Tier legislation also provides for penalty waiver in cases where a regulated entity conducts an environmental audit, notifies the DNR of the violation, and commits to correct the violations promptly.

Citizen complaints. Wisconsin law requires DNR to hold a public hearing relating to alleged or potential environmental pollution upon the verified complaint of six or more citizens. DNR may require a security deposit of up to \$100 and, if the hearing officer finds that the complaint was filed maliciously or in bad faith, the person against whom the complaint was filed may recover costs in a civil action.

Environmental assessments. Wisconsin law requires that courts impose a 10 percent environmental assessment on most fines or forfeitures for environmental violations imposed by courts. This assessment goes to the state's environmental fund.

Criminal enforcement

Wisconsin law provides criminal penalties of up to \$25,000 or imprisonment of up to one year for willful falsification or destruction of documents related to hazardous waste management; and up to \$100,000 or seven and a half years imprisonment for any person who willfully transports hazardous waste to an unlicensed facility who stores, treats, or disposes of hazardous waste.²³⁹ State law provides penalties of up to \$25,000 per day of violation or six months imprisonment for willful or negligent water pollution violations²⁴⁰ and provides penalties of up to \$10,000 or six months in prison for knowing false statements in water pollution-related applications, records, or

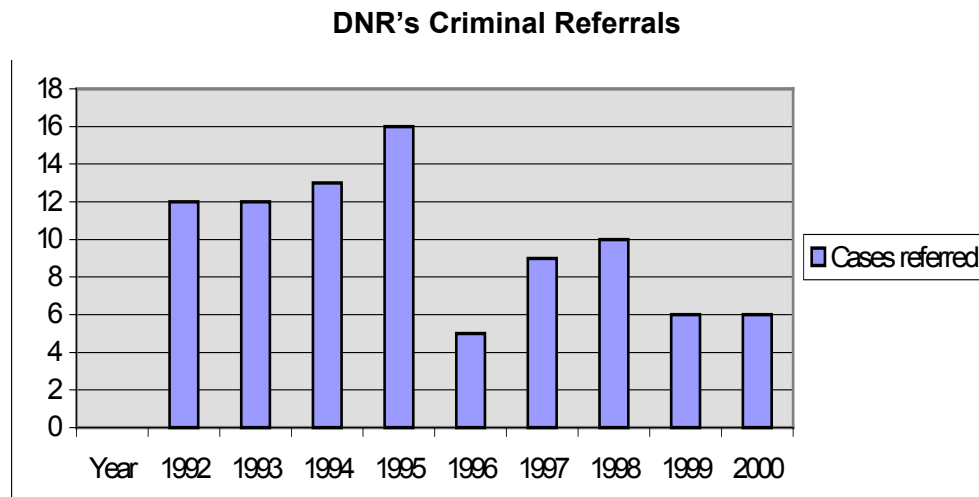
²³⁸ Id.

²³⁹ Wis. Stat. § 291.97(2) (2001).

²⁴⁰ Wis. Stat. § 283.91(3) (2001).

reports.²⁴¹ Wisconsin law provides penalties of up to \$50,000 per day of violation or imprisonment of not more than three years for knowing air pollution violations.²⁴²

Criminal referrals by DNR have ranged between five and 16 per year since 1992.²⁴³



Compliance and beyond-compliance incentives

Cooperative Environmental Assistance Pilot Project. Section 299.80 of the Wisconsin Statutes authorizes the Environmental Cooperation Pilot Program (the "Program"), designed to evaluate innovative environmental regulatory methods. The Program began in 1998, and authorizes DNR to enter into up to 10 cooperative agreements with persons who own or operate facilities required by law to be covered by licenses or permits. DNR may not enter into any new agreements after October 1, 2002. An EMS based on the ISO 14001 standard (or equivalent) must form the basis for the cooperative agreement.

The agreements are intended to establish superior environmental performance and minimize administrative burdens by reducing requirements for permits and streamlining approvals, as specified in each agreement. Agreements are also designed to promote the reduction of overall levels of pollution through this more flexible approach.

Agreements also must include a commitment to superior environmental performance, an environmental management system, specific waste reduction goals, any approvals replaced by the agreement, any operational flexibility and variances granted, a commitment to release periodic performance evaluations, and a plan for public participation. Both regulated and unregulated environmental impacts can be included in an agreement.

Wisconsin Electric Power Company was the first to sign an agreement in February 2001. In addition, they recently submitted another application that is unrelated to the agreement already signed. Cook Composites & Polymers signed the second agreement in October 2001. Northern

²⁴¹ Wis. Stat. § 283.91(4) (2001).

²⁴² Wis. Stat. § 285.87(2) (2001).

²⁴³ Data derived from ECOS report.

Engraving Corporation signed an agreement on June 10, 2002. Four additional companies are actively pursuing agreements under this Program.

Companies have requested regulatory flexibility in a number of areas including:

- Reduced sampling frequency for wastewater discharges;
- Electronic reporting of wastewater data;
- Removal of requirements to monitor for pollutants not in the system based upon previous analyses;
- Reduced air pollution monitoring or reporting;
- One-stop permitting with one individual contact from the department;
- Reduced inspections as a result of implementing an ISO 14001 EMS;
- Single permit to cover a facility with a single, simplified reporting form;
- Facility-wide permit cap;
- Streamlined approval for beneficial reuse of waste products;
- Waiver from federal MACT standard in exchange for superior environmental performance;
- Permit waiver for innovative pollution control testing and evaluation;
- Extension of an effective permit period in order to allow for evaluation;
- Potential implementation of an alternative pollution prevention technology.

The flexibility, incentive, or benefits that have been granted in the three agreements signed thus far include all of the measures listed above except alternative pollution prevention technology, as well as the following:

- Coordinated, expedited review of multiple environmental approvals for projects that involve wastewater pretreatment, waste management, and air quality;
- Limited exemptions from construction permit requirements (for very small projects);
- Faster process for receiving permit exemptions for testing/research;
- Ability to commence construction (but not operation) of minor sources without a permit;
- Faster schedule for revising operating permit;
- Reduced monitoring, record keeping, and reporting;
- Reclassification for coverage under less onerous stormwater discharge permit;
- Less frequent discharge monitoring reports;
- Streamlined landfill plan modifications;
- Ability for beneficial reuse of landfilled coal ash;
- Expanded reuse opportunities for industrial wastes and streamlined process;

- Delay in requiring hazardous waste stack testing until a waste minimization project to eliminate hazardous waste burning could be evaluated and implemented.

Additional information about the agreements is available on DNR's website:
www.dnr.state.wi.us/org/caer/cea/ecpp/index.htm.

The three signed agreements involve the following changes:

- **We Energies' Pleasant Prairie Power Plant.** A final cooperative agreement between DNR and We Energies, (formerly Wisconsin Electric Power Company or WEPCO), was signed on February 5, 2001. The centerpiece of the agreement is a plan to remove ash from company landfills, blend it with coal, and burn it at the Pleasant Prairie Power Plant as a fuel without relaxing any environmental standards. Other highlights of the agreement include the facility's commitment to research mercury emissions, and the DNR's commitments to expedite the review of permit revisions. For complete details, refer to DNR's web site.
- **Cook Composites and Polymers Co., Saukville Facility (CCP).** CCP, a polyester and alkyd resins manufacturer, signed an agreement on October 1, 2001. The agreement enables the company to reduce pollution and pursue other environmental improvements beyond those that existing regulations require. In addition, CCP benefits from the agreement by receiving a coordinated and expedited regulatory review of their project.
- **Northern Engraving Corporation.** Northern Engraving manufactures nameplates and other industrial decorative using plastic and aluminum substrate. The agreement includes two Wisconsin facilities, one that is ISO 14001 registered. Under the agreement, Northern has committed to an annual cap for both volatile organic compounds and hazardous air pollutants. In return, Northern would receive a variance for its waste incinerator from the "once-in, always-in" policy normally applicable to air pollution sources, and would have the opportunity to install some new equipment without obtaining an air pollution pre-construction permit as long as ambient air quality standards are not violated. Northern will conduct annual EMS audits and provide performance evaluations to DNR. The company will also hold regular meetings with a community-established interested persons group.

Each applicant for a cooperative agreement must describe the process they will use to establish a group of interested persons, including residents of the area where the facility covered by the agreement is located. Participants so far have established and fostered their respective interested person groups, as follows.

- **We Energies.** We Energies contacted the following groups to seek out potential interested persons for the Pleasant Prairie agreement: employees of Wisconsin Electric; residents of the community; community leaders/elected officials; local community organizations; local and statewide environmental organizations; local companies; DNR staff or other agencies; suppliers; persons previously interested or involved in the plant's activities; and, media.

We Energies hosted an open house, plant tour, and informational meeting on August 2, 2000. Members of the interested person group received written invitations. A letter to the community, including an open invitation to the public, was also published as a quarter-page advertisement in the local newspaper.

In addition to working with a formal interested person group, We Energies has taken other steps to involve stakeholders more broadly in their Pleasant Prairie pilot project,

including: announcements and updates in employee newsletters; postings on their Internet web site; personal contacts of local officials to solicit their feedback; in-person meetings with statewide environmental group representatives (Sierra Club, Renew Wisconsin, and Citizens for a Better Environment); phone conversations; e-mails; informal face-to-face discussions; press releases; and presentations at state and national conferences. The company is now working with environmental organizations to determine whether it can adopt the corporate reporting format developed by the Global Reporting Initiative at the company's facilities.

- **Cook Composites and Polymers Co. (CCP).** In the summer 2000, CCP held an initial public meeting on their project and hired a consultant to develop an outreach program and an interested person group. CCP's consultant initially designed and distributed a community survey to provide baseline information. CCP then organized a Community Advisory Committee including neighbors, area businesses, employees, local elected and appointed officials, DNR staff, the Local Emergency Planning Committee, the Saukville Fire Department, citizen groups, neighborhood associations, and others in the greater Saukville area. The committee has quarterly meetings that are open to the public. CCP updates participants on new CCP projects, regulatory issues, and environmental performance. In return, committee members share their ideas on how to improve CCP's operations and community outreach. The community members designed a system that allows them to manage environmental issues collaboratively with CCP. That system has essentially eliminated odor complaints and has engaged the community in identifying the significant environmental aspects for the facility's EMS.

DNR and its Cooperative Environmental Assistance Advisory Committee have identified a number of program challenges based on the agency's experience over the last three years. The agency has separated these challenges into structural impediments within DNR, and challenges faced by program participants.

Structural impediments to program effectiveness include:

- Response time from DNR staff regarding agreement issues continues to lag behind the needs of the facilities.
- Reaching DNR and U.S. EPA consensus on particular requested flexibilities including "air bubble" permits, continues to be a problem.

Challenges faced by participating facilities include:

- Establishing an interested person group prior to actually negotiating an agreement.
- Limited company resources to establish an interested person group.
- Inadequate incentive to recruit small businesses.
- Increased openness about facility operations leads to fear of additional surveillance or attention by other government agencies.
- Lack of any guaranteed outcomes for agencies' facilities.

Green Tier. The Green Tier Program is a voluntary environmental leadership effort designed to achieve superior environmental performance. Green Tier also provides a legal framework for parties to collaborate on pursuing environmental goals for regulated and unregulated environmental impacts, as well as environmental restoration and protection of natural landscapes. The Green Tier concept was developed into a legislative proposal in 2000-01 by a committee of

executives from business, agriculture, municipalities, and environmental groups brought together by the Wisconsin DNR. Wisconsin's program differs from other state leadership programs by providing a strong legal basis, the level of detail, the number of options provided for participation in the program, the central role it is designed to play in the state's regulatory system over time, and the level of stakeholder involvement—especially the involvement of environmental organizations—in its development.

Under Green Tier, all organizations and sectors could enter into legally binding charters or contracts that address multiple environmental goals. These entities would be able to agree to a series of commitments that go beyond the regulatory requirements set by local, state, and federal agencies, and their agreements can make it easier for facilities to meet specified commitments while improving their operations. Green Tier would use three major tools:

- **Environmental Charters:** Environmental charters are granted to persons and define the scope of responsibility, activities, authorities, and services for achieving superior environmental performance. They may be organized around land areas, watersheds, airsheds, forests, political subdivisions, activities, trade or business sectors, products, occupations, supply chains, emission categories, species, biological concepts or on any other basis to achieve superior performance. Under Green Tier, the charter is the empowering legal instrument that gives standing to ensure improvements are produced.
- **Environmental Contracts:** Environmental contracts are enforceable contracts entered into by the state that specify the commitments to superior environmental performance on the part of the contracting parties. In some cases, the state or others might commit incentives or support that are proportional to the contract's goals and accomplishments. Under Green Tier, the contract is the enabling and committing legal instrument that triggers rewards for achievements, or sanctions for shortfalls.
- **Environmental Management Systems:** EMSs are focused on achieving environmental results through organized sets of procedures that identify goals, commit resources to those goals, monitor progress, and continuously improve performance. These systems will produce helpful performance data to report progress toward Green Tier environmental goals. Under Green Tier, an EMS would be a legally-viable due diligence tool that protects all parties and helps businesses to compete in international markets.

The existing regulatory system remains for facilities who prefer it or do not qualify for Green Tier; and DNR has said that a credible compliance system is essential to push entities toward Green Tier.

Green Tier would be a two-level system. Tier I would require regulated entities to meet entry criteria that bar participants with past civil or criminal violations. Tier I participants must have an EMS or adopt one within one year. Tier II requires an EMS that qualifies under ISO 14001 (or an EMS that DNR determines is equivalent to ISO 14001) and shows a commitment to superior environmental performance. Superior environmental performance means measurable or discernable improvements in air, water, land, or natural resources quality or ecosystem protection beyond that which is achieved under environmental requirements.

Green Tier's incentives include public regulatory flexibility, streamlining, technical assistance, and single point of DNR contact, as well as recognition and use of Green Tier or Green Star logos

for public relations and marketing purposes. In addition, Green Tier would align with the U.S. EPA's new Performance Track²⁴⁴ that will provide federal regulatory incentives.

The Green Tier proposal was developed in consultation of a diverse stakeholder group. The group has indicated that they will support the proposed law, presuming two things:

- The statutory language accurately reflects their negotiated agreement;
- An appropriation accompanying the proposal enables businesses, environmentalists, and agencies to implement it credibly, and that resources are not inappropriately reassigned from other programs, which would unnecessarily suggest there is a relaxing of environmental protection.

The Green Tier legislation would create a permanent Environmental Results Council that includes representatives from environmental organizations, businesses, and local government, as well as persons who do not represent any of these groups. The Council would be asked to examine overall environmental goals for the Green Tier, consider the relationship between flexibility and superior environmental performance (proportionality), and advise DNR how to use the legal framework to encourage wide participation by the full range of interested parties. DNR would also be required to provide grants to nongovernmental organizations “to help those organizations develop the ability to participate as interested persons in the green tier program.”²⁴⁵ The department would be required to allocate \$150,000 for the 2001-03 biennium for these grants.²⁴⁶

Fiscal and staff resources needed to implement the Green Tier include an increase of 5.0 FTE SEG positions in the Department of Natural Resources.²⁴⁷

Non-point Source Water Pollution Program. In 1997, the Wisconsin legislature directed DNR to develop performance standards to control polluted runoff from non-agricultural activities and to develop performance standards and prohibitions for agricultural activities through cooperation with the Department of Agriculture, Trade and Consumer Protection.²⁴⁸ (DNR’s rules require agricultural operations to operate in a manner that achieves a soil erosion rate equal to, or less than, the “tolerable” or “T” rate for the particular type of soil.²⁴⁹ The rules also require maintaining grass in concentrated flow channels and conservation practices within water quality management areas.²⁵⁰ These standards apply to all new operations and, if 70 percent cost share funding is available to meet the standards, to existing operations.²⁵¹

For non-agricultural runoff, the rules require best management practices for construction sites that “by design, reduce the average annual sediment load carried in runoff by 80 percent, as compared to no sediment or erosion controls throughout the duration of the construction project.”²⁵² The

²⁴⁴ See www.epa.gov/performance-track/.

²⁴⁵ Section 4. Assembly Bill 144 (Special Session January 2002).

²⁴⁶ Ibid.

²⁴⁷ Ibid., section 9137.

²⁴⁸ 1997 Act 27. See also 1999 Act 9.

²⁴⁹ NR 151.02.

²⁵⁰ NR 151.03 and 151.04.

²⁵¹ NR 151.09.

²⁵² NR 151.11(3) (b).

rules require that *after* construction, sites must adopt best management practices that by design reduce the average annual total suspended solids load by 80 percent for new development as compared to no runoff control management, and by 40 percent for redevelopment projects. The rules also establish performance standards for peak runoff discharge rates and for increasing the surface water elevation downstream of the development (no more than 0.1 inches for a two-year, 24-hour storm event).²⁵³ For more details, see www.dnr.state.wi.us/org/water/nps/admrules.htm.

Compliance assistance

Compliance assistance is delivered through three primary mechanisms in Wisconsin: the Cooperative Environmental Assistance Bureau at DNR, the Small Business Compliance Assistance program at the Wisconsin Department of Commerce (the Clean Air Act Assistance program), and the University of Wisconsin-Extension Service's Solid and Hazardous Waste Education Center.

Cooperative Environmental Assistance. Prior to the agency's reorganization in 1995, DNR operated a small pollution prevention office. This office became the core of a new Cooperative Environmental Assistance (CEA) Bureau in the Customer Assistance and External Relations Division (CAER) that consolidates most compliance assistance activities. CEA is responsible for:

- Providing direct assistance to business sectors for pollution prevention, waste minimization, and recycling, and promoting effective working relationships with the department through coordination and collaboration.
- Developing, implementing, and managing programs that encourage the use of environmental management systems and superior environmental performance through the use of those systems.
- Explore and manage the development of innovative approaches to priority environmental issues through the use of experimental programs and adaptive approaches to environmental performance and compliance.

CEA has eight sector specialists who cover aquaculture, asphalt paving, auto services, chemical manufacturers, dry cleaning, electronics reuse and recycling, electric power generation, food processing, metal casting, automotive and scrap metal recycling, and wood products. CEA chose these sectors by surveying DNR's regional and central office program managers, as well as external stakeholders. The responsibilities of the sector specialists include:

- Developing and recommending pollution prevention and waste reduction options including implementation strategies with public and community involvement;
- Assisting businesses to develop a coordinated, cross-media approach to environmental performance;
- Encouraging and facilitating businesses to go beyond compliance;
- Formal recognition for superior environmental performance;
- Conveying information to, and gathering information from, business sectors to facilitate improved working relationships with the sector.

²⁵³ NR 151.12.

Clean Air Act small business assistance. The Clean Air Act small business assistance program is funded through Clean Air Act fees and is operated by the Wisconsin Department of Commerce. The department markets itself as a source of free, confidential advice from a source outside of the regulatory agency. The program employs two full-time technical assistance staffers. The program has focused on dry cleaners and auto body shops, the small business sectors most affected by Clean Air Act requirements. Wisconsin estimates that there are thousands of dry cleaners in the state and more than 10,000 auto body shops. The program is now also working with wood finishing operations and lithographic and general printers. Principle assistance tools include fact sheets, guidance documents, and workshops. The program fields between 300-500 phone calls per year. The program does not have a formal joint work planning process with DNR's air office, although Commerce staff believe such a process would be helpful.

UW-Extension Center for Environment and Energy. The center is a comparatively small operation that includes five staff in 2002, who focus on education and technical assistance programs for business and communities on source reduction, renewable energy, solid waste management, pollution prevention, and energy conservation. The Center provides professional education programs throughout the state, as well as direct technical assistance to clients in the form of environmental assessments conducted at individual facilities. State funding has included \$325,000 in segregated recycling funds (which are no longer available), \$75,000 in solid waste funding, and \$112,000 in pollution prevention funding. The CEE web site is at <http://www1.uwex.edu/ces/cee/>

Other program-based compliance assistance programs include:

- **Water Bureau.** The bureau has a POTW operations and maintenance technical assistance program through which DNR's operations/maintenance coordinator goes out to sites with a regional basin engineer. The level of effort for this program has been reduced somewhat because of agency downsizing. To compensate for this situation, the bureau is trying to partner with professional associations and other agencies to supplement the bureau's ability to deliver technical assistance to facilities. Most of the basic technical assistance is provided in association with facility inspections. This approach provides a single point of contact for the facility operator, but the basin engineers may be reluctant to initiate enforcement when they are also providing technical assistance to a facility.
- **Air Bureau.** The bureau does not have a separate compliance assistance staff. Permit staff and compliance inspectors work with sources during permit issuance to tailor permit requirements and compliance demonstration methods to specific sources. Within the constraints of the stepped enforcement process and the EPA high priority violator policy, inspectors do have latitude in how they deal with facilities. This approach is seen as making facilities more willing to engage with DNR as a "good faith" regulator. Air inspectors do not have a formal technical assistance program, but they do refer facilities to the CAER program or to CEA sector specialists.
- **Hazardous Waste Bureau.** There is a technical assistance aspect to hazardous waste inspections but no strong program for small businesses. Hazardous waste inspectors continue to be uncertain about whether to emphasize enforcement or the assistance aspects of their work.
- **Drinking Water Program.** The program's strategic goal is to assure that 90 percent of the population served by public water supplies will receive water complying with the SDWA by 2007. The program uses several methods to meet this objective, including in-house technical assistance, contract technical assistance, and enforcement. DNR is

authorized to draw 2 percent of its federal funding from the SDWA capital loan fund for its contract to provide on-site technical assistance and to produce technical assistance materials. The program's data systems generate monitoring requirements for each facility that are provided to the operators at the beginning of the year. The program has also developed a template reporting form for facilities that satisfies all of the constituent reporting requirements for each facility.

E.5. Informing and interacting with the public

Information management and objectives. In 1998, DNR reported its vision for information management: "Through information technology, information is shared with all people, in a form they can use, when and where they want it, to help them make knowledgeable choices to protect and enhance Wisconsin's natural resources."²⁵⁴ Three of DNR's major public access tools are described below.

FACT system. FACT is a new DNR system that enables the public to access environmental emission and release data from various DNR programs. The system only includes commonly requested data—air emissions inventories, wastewater discharge monitoring reports, hazardous waste annual reports, hazardous waste manifests, and toxic release inventories—not all environmental information that DNR has collected. For example, FACT does not include permit limits, compliance data, and accident prevention plans. The site can be searched by facility name, county, zip code and SIC code. The site is accessible from the DNR home page by clicking on a tab entitled "go to some top topics" but is not otherwise referred on the home page, which makes FACT somewhat hard to find without training about how to access the site. See www.dnr.state.us/org/caer/cea/projects/one_stop/updates/overview.htm.

Detailed data from 1996-1998 for about 70 percent of DNR's 9000 regulated facilities has been posted. In the first half of 2002, DNR expects to enter the remaining facilities into FACT and then begin entering 1999-2000 data.

Where You Live. Where You Live displays geographic and visual natural resources information. Information in the system includes background on the state's Geographic Management Units, a map of air management boundaries, a map of ozone monitoring sites, fish consumption advisories, information about the Lakes Self-Help Monitoring Program, and DNR staff contacts. See www.dnr.state.us/whereulive/.

State of the Environment Report. DNR published its second state of the environment report in 2001. The report is organized around the DNR's four major goals. The report contains some trend data on air emissions, hazardous waste generation, cleanups of contaminated properties, two years of environmental compliance data, and water quality. The report includes only brief program descriptions and does not contain specific environmental quality improvement goals. As a result, the report serves more as a primer on DNR's programs and is not well suited for use by the public to assess progress by the agency or regulated facilities in accomplishing their goals for environmental improvement.

²⁵⁴ Wisconsin Department of Natural Resources, U.S. Environmental Protection Agency, One Stop Reporting, State of Wisconsin Baseline Summary, 2 (October 26, 1998).

Watershed Basin Reports. The 1996 DNR reorganization focused, among other things, on working within watershed basins. Water quality plans are developed for each basin. The report on the Grant, Platte, & Galena Basin provides an example of DNR’s approach taken to watershed management. The Basin is located in a predominately rural area of Southwestern Wisconsin. The report was prepared in consultation with an Advisory Board made up of representatives from DNR, University of Wisconsin Extension, County Land Conservation and Zoning Departments, Natural Resources Conservation Services, the Regional Planning Commission, and the Nature Conservancy. The first priority is for DNR, in partnership with local government agencies, local conservation groups and interested citizens, to “drastically reduce the amount of non-point pollution, especially soil, pesticides, fertilizers, metals, and chemicals that reach streams in the Grant-Platte Basin.”²⁵⁵ To address this priority, the Basin Team will focus on installing best management practices for soil erosion and stormwater runoff throughout the basin.²⁵⁶

The second priority in the plan is to “improve the quality of groundwater and drinking water in the basin by removing sources of groundwater contamination, increasing public awareness of groundwater and encouraging private well-water testing.”²⁵⁷ The Watershed Bureau’s standard operating procedure is to create an advisory committee of stakeholders for all major rules. Staff also meet with permittees as soon as an application is received.

Citizen complaints. Wisconsin law requires DNR to hold a public hearing on alleged or potential environmental pollution upon receiving a verified complaint from six or more citizens. DNR may require a security deposit of up to \$100 and, if the hearing officer finds that the complaint was filed maliciously or in bad faith, the person against whom the complaint was filed may recover costs in a civil action.²⁵⁸

E.6. Financial and human resources

Budget

DNR’s budget was reduced by about 10 percent in 1996 as a result of statewide budget cuts. These cuts produced significantly lower staffing levels. DNR budgets for 1995 to 2001 are shown in the following graph:

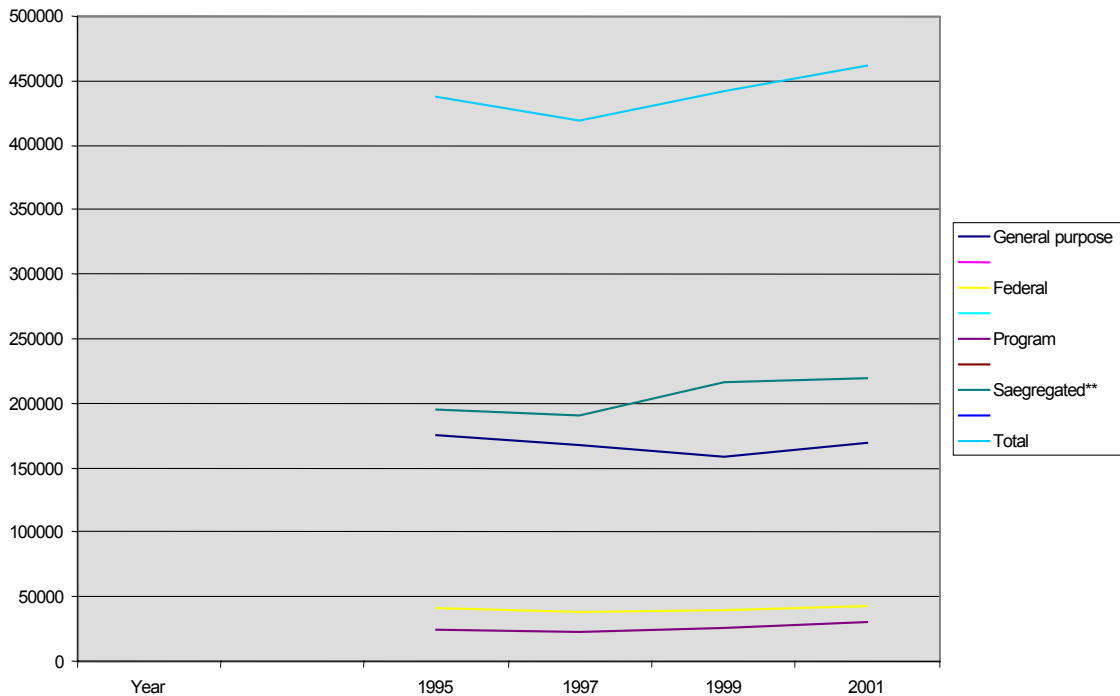
²⁵⁵ DNR, *The State of the Grant, Platte, & Galena River Basins*, Volume One, 4, www.dnr.state.wi.us/org/gmu/gpsp/index.htm.

²⁵⁶ *Ibid.*

²⁵⁷ *Ibid.*

²⁵⁸ Wis. Stat. § 299.91 ().

DNR Budget and Funding Sources (\$1000)



Drinking water. The drinking water program was not downsized in the 1996 reorganization and, although some state funding was lost, the program has received additional federal funding. The drinking water program added 20 to 30 staff to handle the rule development, increased inspections associated with the amendments to the SDWA, and developed the state’s groundwater rule. This number will likely decline to 10, mostly focused on the groundwater rule. The drinking water program is looking for ways to streamline their work so that the required number of inspections under the federal law can be accomplished at a plausible staffing level.

Watershed management. In the mid-1980s, the Bureau of Watershed Management had a full-time staffer in each regional office to provide technical assistance to wastewater treatment operators, but resource constraints now limit the Bureau to a single person in Madison. Technical assistance to small businesses with water related issues is very limited, an especially critical problem as regulations affect smaller and smaller facilities. Although EPA’s sector-based clearinghouse projects provide useful compliance information, many facilities still need someone on-site to help hold their hands.

The Watershed Management Sub-Program receives general purpose revenue (because discharge permit fees are paid to the general fund) and some groundwater and stormwater fee revenue. However, with recent state revenue shortfalls, the subprogram has faced an approximately 25 percent decrease in general purpose revenue funding. Some of the state funding cuts have been balanced, in part, by increased federal grants under sections 106 and 319 of the Clean Water Act.

Air program. In Wisconsin’s biennial 1999-2001 budget, DNR’s request for additional air permit fees did not make it through the budget process. As a result, the Air Bureau needed to keep 15 positions vacant. Even if those positions had been filled, the air program would have had fewer staff than were in the program in the mid-1990s. Currently, the program has little flexibility

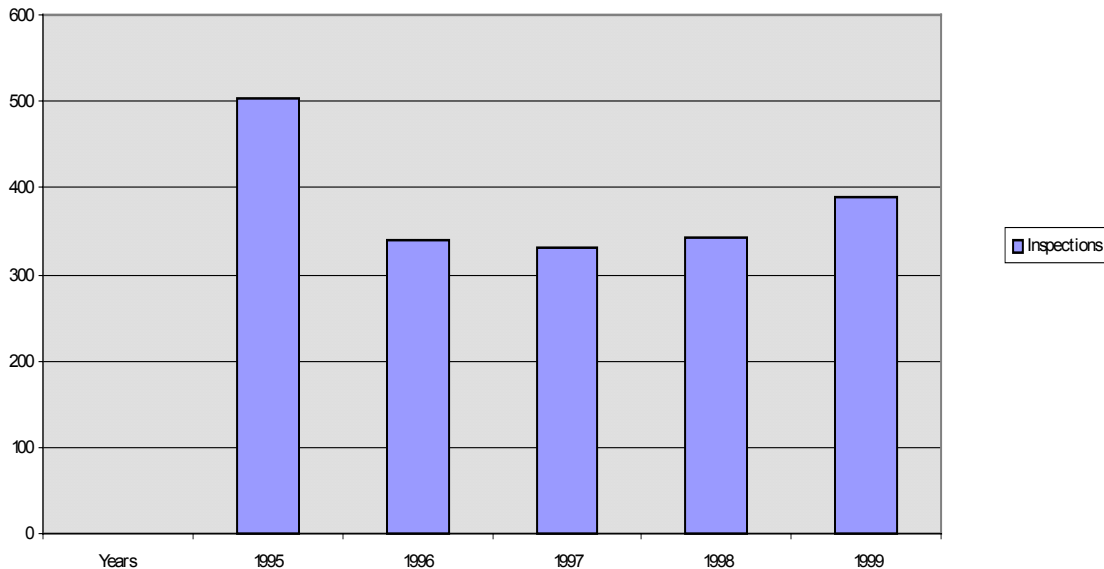
for allocating inspection resources because EPA requires DNR to focus on major source inspections. The bureau has not performed an analysis of its future work needs when all initial Title V operating permits have been issued. In a mature program, permit staff will still be needed for permit revisions, renewals, and reopenings, as well as permits for sources that enter the program and become subject to the requirements because of a change in the source or the rules. An analysis of an air mature program would show what staffing levels are needed in permit and compliance activities. The bureau's current priorities are clearing the operating permit backlog, doing outreach to facilities to help them understand the Title V regulations, and focusing on key emissions in key areas.

Solid waste. The staff has remained steady, but the 10 permit engineers were allocated to DNR's regional offices following reorganization. The number of solid waste facilities has decreased over the last 10 years from more than a thousand licensed facilities to 45 municipal solid waste landfills and 45 industrial solid waste landfills. A new category of construction/demolition landfills was added in 1996. Solid waste programs are funded by tonnage fees, license fees, and plan review fees. Proposed fee increases failed in 1996, but new tonnage fees were approved in 1997. As a result, the solid waste program has been adequately funded.

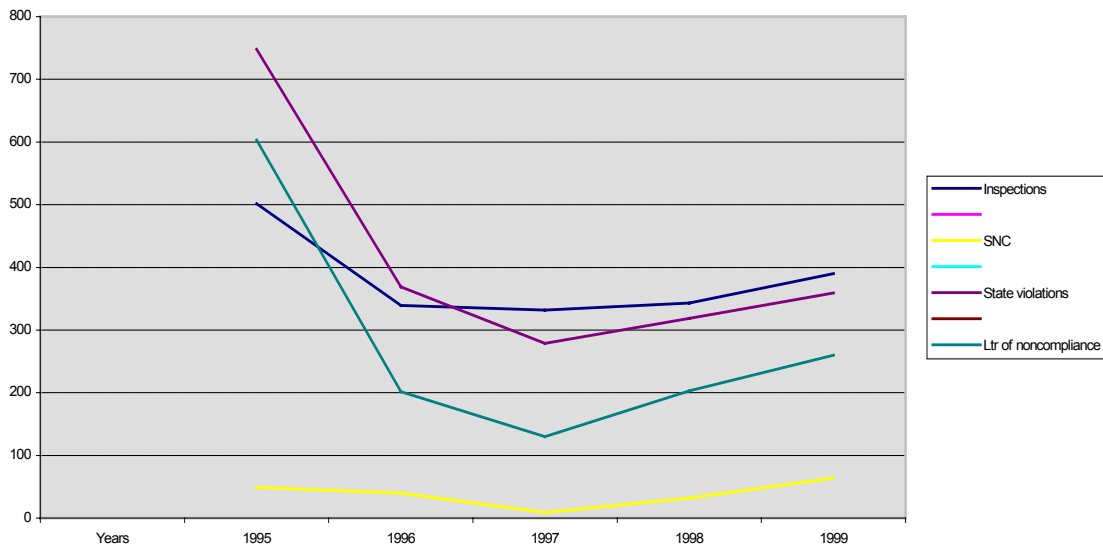
E.7. Environmental and compliance performance

As the figures below demonstrate, in almost all of DNR's regulatory programs both the number of inspections and the number of enforcement actions dipped significantly during the period 1996 through 1997; and they have recovered slowly thereafter. Five-year data were not available for the water program. Enforcement statistics, based on DNR's numbers reported for the Environmental Council of the States enforcement survey, are set out in the following tables and graphs for DNR's major media programs.

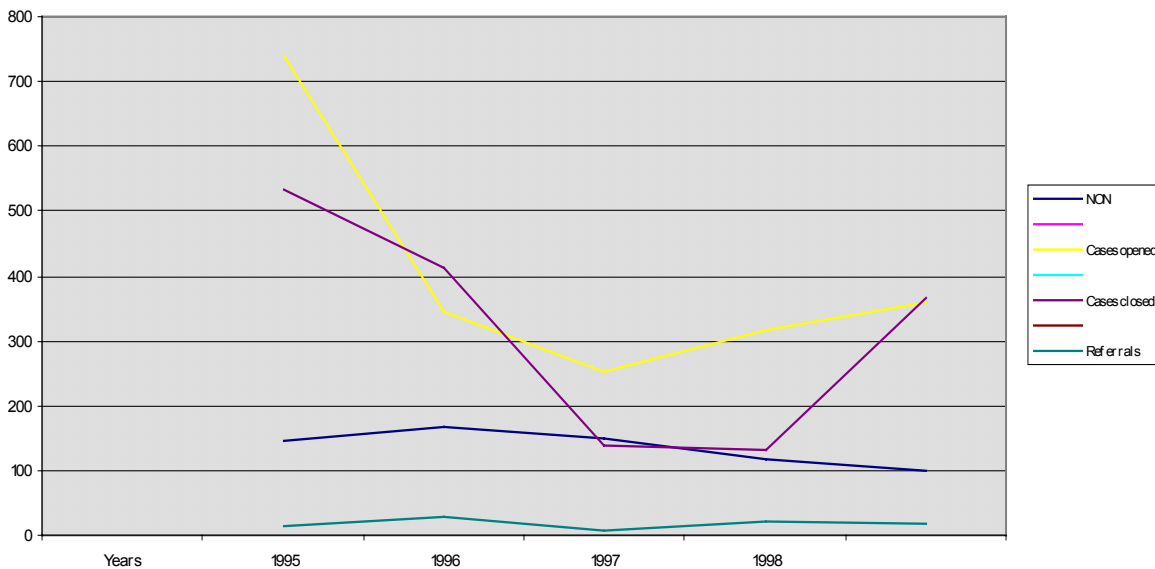
Air Inspections



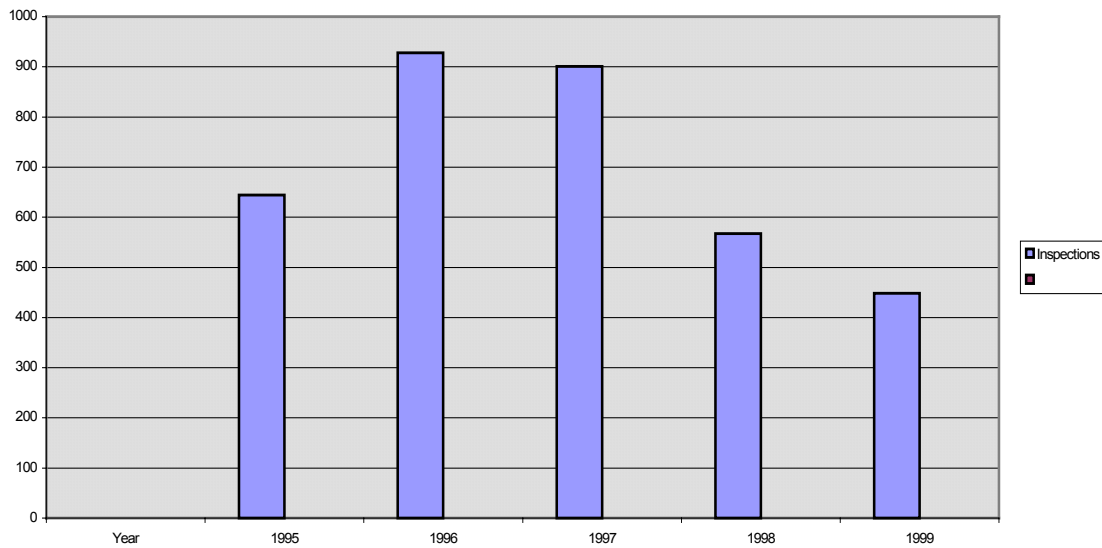
Air Management Enforcement Actions



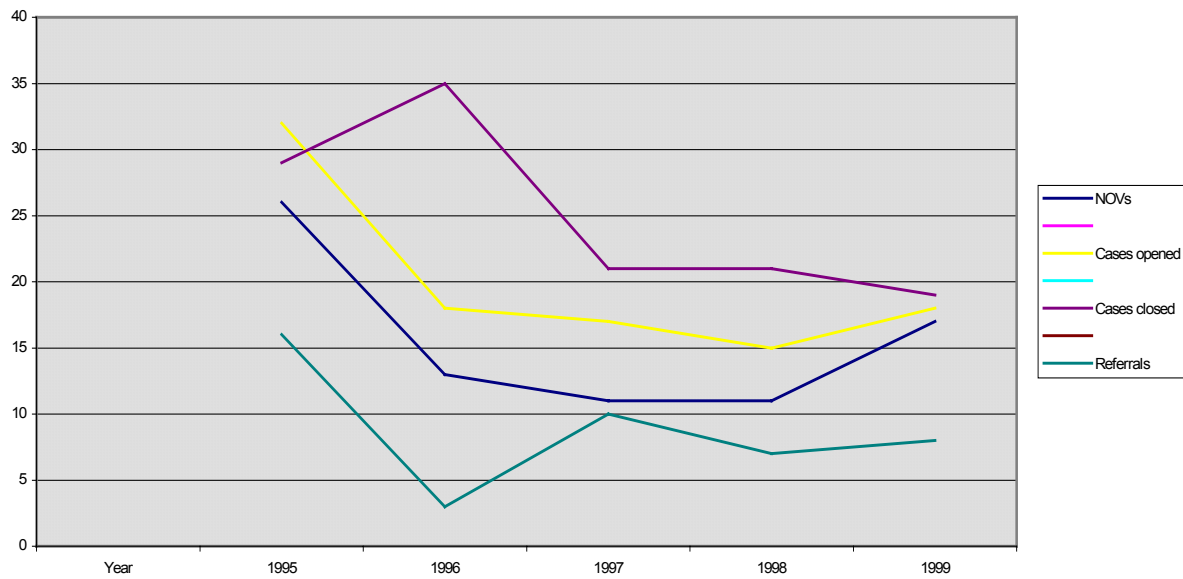
Air Enforcement Actions



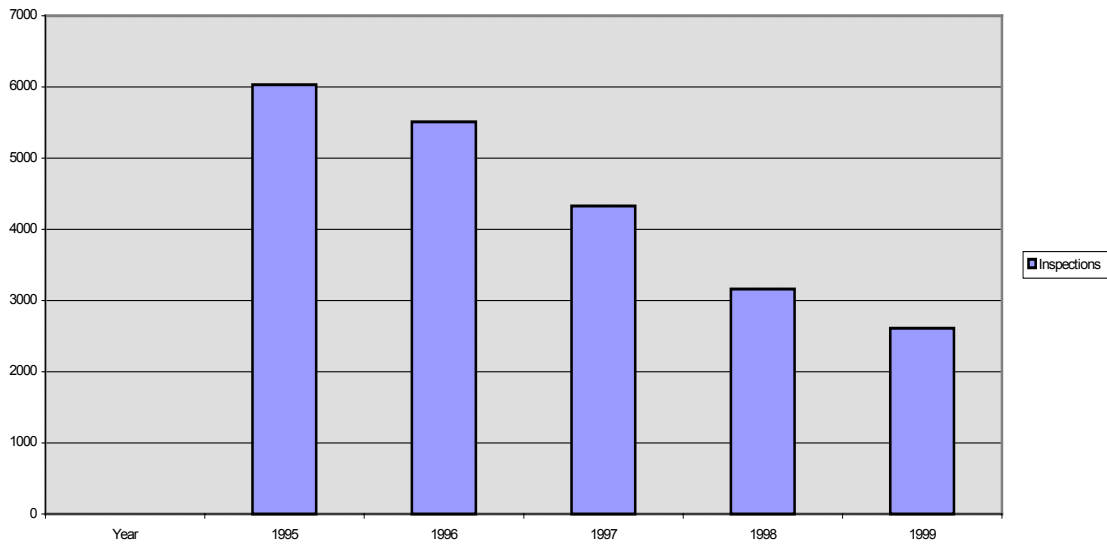
Hazardous Waste Inspections



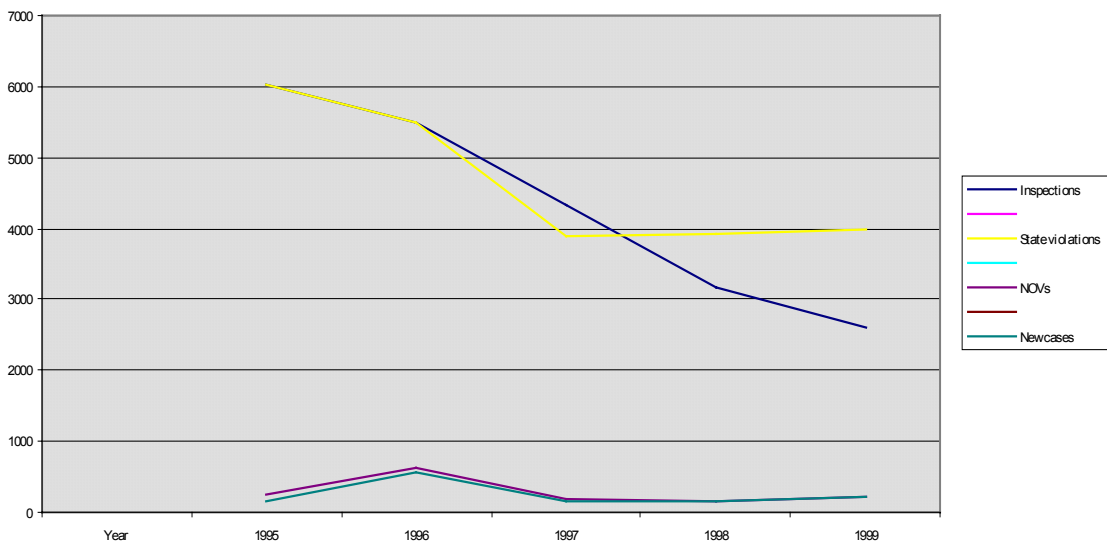
Hazardous Waste Enforcement Actions



SDWA Inspections



SDWA Enforcement Actions



The number of enforcement cases that DNR referred during 1992 to 2001 is shown below:

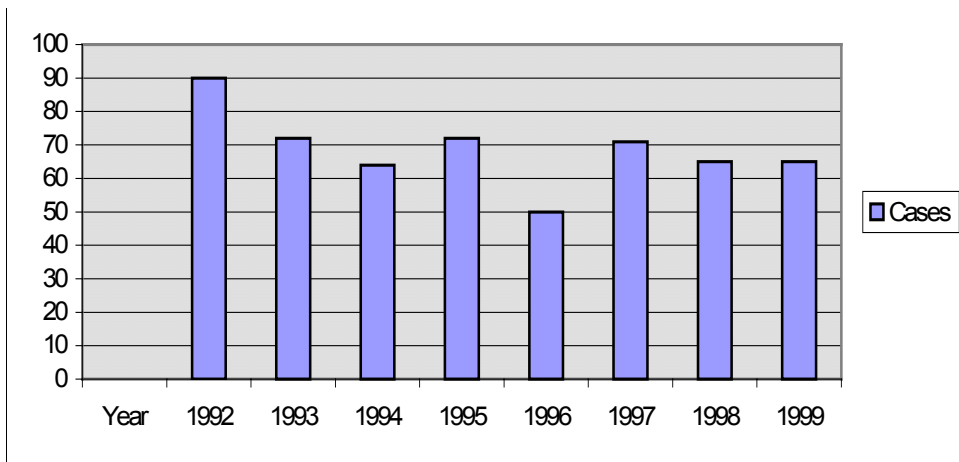
DNR Referrals and Judgments

Year	Referrals to:			Total Judgments
	Wisconsin Dept of Justice	U.S. EPA	State District Attorney	
1992	69	2	0	\$2,415,828
1993	52	0	0	\$2,250,523
1994	45	2	1	\$5,346,410
1995	58	1	1	\$2,184,261
1996	64	0	3	\$3,125,237
1997	42	1	3	\$2,432,560
1998	63	1	0	\$1,548,590
1999	56	1	0	\$2,311,878
2000	61	0	1	\$1,248,863*
2001	67	2	0	\$546,812*

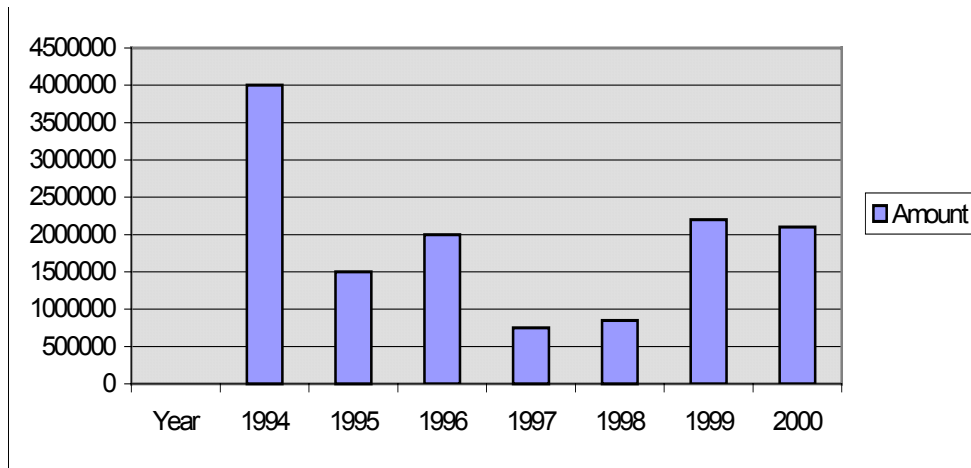
*Expected to increase as cases are concluded.

These last two graphs also show the numbers of DNR enforcement referrals and the amounts of penalties collected:

Cases Referred



Penalties Collected by Referrals



Appendix F: Data Needs Inventory

This data needs inventory formed the basis of data collection efforts by the research team. It was supplemented by particular requests of each state.

Definitions. For the purposes of this project, we adopt the following definitions:

- **Compliance assurance.** The various actions and processes undertaken by a regulatory agency to verify, encourage, and assure that regulated facilities/entities remain in compliance or come into compliance. Compliance assurance includes activities such as inspections, monitoring, outreach, reporting, record reviews, compliance assistance, negotiation, and formal enforcement actions.
- **Compliance assistance.** Actions undertaken by a regulatory agency to *assist* (not compel) regulated entities/facilities in preventing non-compliance or in achieving compliance. Compliance assistance may include the transfer of technical information, explaining possible ways to correct deficiencies, convening sector outreach events, conducting compliance assistance inspections or audits, and meeting with facility managers or other personnel to discuss ways to prevent or minimize environmental impacts. In general, compliance assistance activities seek to ensure that regulated entities understand all applicable regulatory requirements and to assist them in discovering the most cost effective and efficient ways to achieve compliance or move beyond compliance.
- **Environmental leadership programs.** Programs intended to provide regulatory and other incentives or rewards to facilities or firms which commit to achieving—or which already attain—a superior level of environmental performance. Incentives offered by these programs vary, but are of three types: recognition, financial incentives (e.g., reduced permit fees or subsidized loans for P2 equipment), and regulatory incentives (e.g., expedited permitting, less frequent inspection, reduced monitoring and reporting, pre-approval or operational modifications, and self-auditing or certification).

Data is requested for the past five years, or since program inception	Enforcement Programs	Compliance assistance/outreach programs	Environmental Leadership Programs
A. Resources			
A1. Program budgets			
<ul style="list-style-type: none"> total budget 			
<ul style="list-style-type: none"> distribution of budget (total budget disaggregated by media/statute/sector (if applicable)) 			
<ul style="list-style-type: none"> funding sources (distribution between federal and state monies, if available/ applicable. specific source of federal or state funds) 			
<ul style="list-style-type: none"> other funding sources (e.g., effective contribution from state AG or small business office.) 			
<ul style="list-style-type: none"> distribution of budget between enforcement and outreach activities w/in each media program, if available. 			
<ul style="list-style-type: none"> if any grants were received but not dispersed, please so indicate 			
A2. One-time vs. recurring funding			
<ul style="list-style-type: none"> amount and source of any one-time funding received should be explicitly identified. Indicate whether these amounts are included in the total budget, above. 			
A3. Staffing (FTEs)			
<ul style="list-style-type: none"> total FTEs 			
<ul style="list-style-type: none"> distribution of staff between media or major program elements 			
A4. Off-budget contributions by other programs, offices, or departments			
<ul style="list-style-type: none"> resources (staff/\$) demanded by or provided to enforcement, outreach, and ELP from other offices and departments, not specifically budgeted 			
<ul style="list-style-type: none"> resources devoted by other fed/state agencies with direct involvement in program implementation (where applicable) 			
A5. Agency-wide budget and resource information			
<ul style="list-style-type: none"> overall agency budget and staffing levels, along with funding sources 			
<ul style="list-style-type: none"> distribution of these resources among major offices. 			
<ul style="list-style-type: none"> commentary on to what extent changes in distribution/overall agency budget reflect desires of agency management, and to what extent they may be imposed by the legislature 			
<ul style="list-style-type: none"> estimated change in the # of facilities in regulatory universe 			
<ul style="list-style-type: none"> any new regulatory responsibilities/mandates taken on by agency in past five years (e.g., new program delegations) 			

B. Outcomes/Program evaluation			
B1. Process or activity measures			
<ul style="list-style-type: none"> enforcement/compliance assistance metrics as reported to EPA other enforcement/compliance metrics tracked by agency <p>Note 1: <i>the above should include enforcement/compliance activity counts such as: field citations/NONs/NOVs, administrative penalty orders, settlement agreements, SEPs, criminal enforcement, resolution time, repeat violation rates, as well as compliance assistance activity numbers.</i></p> <p>Note 2: <i>If state has filled out the ECOS questionnaire on compliance assurance activity, states should submit this questionnaire first. Project will request any fill-in data not available from the questionnaire.</i></p>			
<ul style="list-style-type: none"> process measures specific to ELP, if any <p>Note: <i>project should attempt to ascertain of ELP participation (vs. target or anticipated participation, if any); as % of relevant regulated population.</i></p>			
<ul style="list-style-type: none"> any general activity measures used by agency on which ELP should have an impact 			
B2. Outcome measures			
<ul style="list-style-type: none"> estimates of sectoral compliance levels, including any sector-specific metrics 			
<ul style="list-style-type: none"> estimate of cost/agency effort to attain given level or increment of compliance, if available 			
<ul style="list-style-type: none"> pollution prevented or averted (against what baseline?) 			
<ul style="list-style-type: none"> environmental quality measures (note attribution difficulty) 			
<p>Notes:</p> <p><i>We are interested in all evaluation states do for enforcement, compliance assistance and leadership programs, not just what they do to meet EPA reqs.</i></p> <p><i>We wish to understand frequency and mechanism (paper, electronic, etc) by which state agency reports to EPA</i></p> <p><i>Where both EPA and states track "identical" metrics, we should compare the two sets of numbers. Note any differences between state and EPA definitions.</i></p> <p><i>States and research team may have differing interpretations of what constitutes an "outcome measure" vs. a "process measure."</i></p>			
B3. special program evaluations or reports			
<ul style="list-style-type: none"> EPA audits/evaluations of state program, if any 			
<ul style="list-style-type: none"> internal state agency reviews/evaluations/audits of program performance 			
<ul style="list-style-type: none"> other third party (legislative, AG office, NGO) audits/reviews/evaluation of program performance, if any 			
B4. Agency-wide evaluation			
<ul style="list-style-type: none"> agency annual reports or "state of the environment" reports 			
<ul style="list-style-type: none"> any other comprehensive evaluations of agency performance 			

C. Planning & organization			
C1. Planning documentation specific to enforcement, compliance assistance and ELP			
<ul style="list-style-type: none"> relevant elements of categorical grant workplans/PPAs/PPGs and associated guidance, memos and correspondence 			
<ul style="list-style-type: none"> memos, correspondence, and/or qualitative summary of other EPA interactions related to program planning for enforcement, compliance assurance, and ELP 			
<ul style="list-style-type: none"> program-specific strategic planning/priority-setting documents 			
C2. General or agency-wide planning documentation			
<ul style="list-style-type: none"> agency-wide strategic plans, if any. 			
<ul style="list-style-type: none"> qualitative account of institutional/focus changes in agency over the past 5 years, and their origin/cause 			
<ul style="list-style-type: none"> org charts, with particular note of significant changes 			
D. Qualitative program description/profiles			
D1. Profile of “base” compliance assurance program			
<ul style="list-style-type: none"> description of base compliance assurance as of five years ago 			
<ul style="list-style-type: none"> list of major program innovations over past five years 			
<ul style="list-style-type: none"> role of self-audit legislation, if any 			
D2. Profile of program innovations and ELP.			
<i>For each ELP or major compliance assurance program innovation. . .</i>			
<ul style="list-style-type: none"> when, how and why established or implemented (institutional history, including major agency actors and content of public participation process, if any) 			
<ul style="list-style-type: none"> enabling statutory authority, if any 			
<ul style="list-style-type: none"> how staffed/administered/funded (from what office and budget). Special note of any changes from standard or established procedures? 			
<ul style="list-style-type: none"> stated goals 			
<ul style="list-style-type: none"> eligible or targeted participants (qualification requirements, targeted sectors or entity characteristics) 			
<ul style="list-style-type: none"> nature of participant commitment (e.g., MOU, reporting requirements, P2 plan, SEP, etc?) 			
<ul style="list-style-type: none"> innovation components/activities (nature of change from previous practice) (might include changes to targeting, SEPs in lieu of penalties, change in nature of inspections, soft landings, reduced penalties for self-disclosure) 			
<ul style="list-style-type: none"> program components/activities (incentives for participation) 			
<ul style="list-style-type: none"> description of assessment and benchmarking protocols included as part of innovation (if any) 			
E. Key contacts			
<ul style="list-style-type: none"> State agency contacts 			

<ul style="list-style-type: none"> • State legislative contacts 			
<ul style="list-style-type: none"> • EPA contacts 			
<ul style="list-style-type: none"> • Third-party contacts, where relevant (e.g., business associations, other state agencies with participation in innovations, etc.) 			

THE ENVIRONMENTAL LAW INSTITUTE

For more than three decades, the Environmental Law Institute has played a pivotal role in shaping the fields of environmental law, management, and policy domestically and abroad. Today, ELI is an internationally recognized, independent research and education center.

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