

Preface

A sea-change is taking place in environmental management in the United States today; the states are its leaders.

The old environmental vision, formed in the 1970s and 1980s, was crisis-driven. It distrusted markets and the private sector; punishment rather than cooperation was the method of choice for securing environmental progress. The old vision, which assumed environmental problems and conditions were similar everywhere, called for “one-size-fits-all” regulations mandating acceptable technologies and cleanup methods. Moreover, the prevailing wisdom took it almost as an article of faith that the states lacked the capacity to regulate effectively, would strike cozy deals with bad polluters, and would “race to the bottom” in their attempt to cut environmental standards to attract businesses from other states.

As the largest environmental problems have been addressed, with the remaining problems being smaller, subtler, and varying from place to place, the costs and inadequacies of inflexible, prescriptive, and confrontational policies have become more apparent. Achieving future environmental goals will require innovation, flexibility, cooperation, and decentralization.

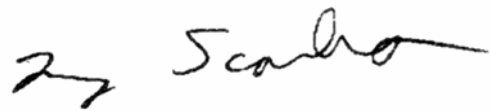
Our new environmental vision stresses problem-solving instead of primarily relying on punishment for failure to follow one-size-fits-all approaches. It strives to balance competing values—both environmental values against other values, and some environmental values against other environmental values. It seeks flexibility in compliance methods, so that companies can choose the lowest-cost way of achieving a given level of environmental quality rather than following prescribed approaches. It views the private sector as central to environmental improvement. And it tries to bring decisionmaking authority to the lowest possible level where it makes sense—so that local problems can have local solutions, state problems can have statewide solutions, and federal problems can have federal solutions.

Many states have taken the lead in enacting environmental reforms based on these principles. This report chronicles some of their efforts.

This report builds on NEPI’s report, *Building Partnerships for Accountable Devolution* (Fall 1996), and on Lynn Scarlett’s report, *New Environmentalism* (January 1997). Information in the report was drawn from in-person interviews and conversations with representatives from state agencies across the country, and from material provided by the Environmental Council of the States.



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Race to the Top: The Innovative Face of State Environmental Management

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Introduction

One day, Mary Gade realized that small businesses in Illinois, inexperienced in the ins and outs of environmental compliance and fearing hefty penalties, were reluctant to ask for the Illinois EPA's help in fixing their environmental problems.¹ Many people feel the same way, but not all of them are the director of the Illinois Environmental Protection Agency. In 1995, to address this problem, as well as to overcome the regulated community's historic mistrust of environmental regulators, Gade set up Clean Break, an innovative program which offers small businesses compliance assistance and relief from penalties, provided they come into compliance within a reasonable time.

Gade also believed that unrealistically stringent cleanup standards, and developers' fear of liability if they took the trouble to clean up a site, were unnecessarily hindering the reuse of "brownfields," or contaminated industrial sites. The Illinois EPA, in 1993, developed a set of flexible cleanup standards and limited liability releases that have contributed to the successful redevelopment and reuse of hundreds of contaminated sites.²

Gade, who worked for the U.S. EPA for thirteen years before heading the Illinois EPA, has a name for what state environmental agencies can do—"magic." She recognizes that at the federal level, these sorts of imaginative, spur-of-the-moment, voluntary initiatives would have been impossible. "States are particularly well positioned" for experimentation, she says. "We make great laboratories." Moreover, she says, the U.S. EPA may no longer be the best place to make many sorts of environmental decisions. "The federal government is not being as helpful and constructive as they could be," and "the environmental management system of this country, after 30 years, is essentially ready for a major rethinking and overhaul."

How is environmental management changing in the United States? The old environmental vision, shaped in the 1960s and 1970s, implicitly, and sometimes explicitly, viewed the information challenge as one of identifying general environmental problems and then specifying uniform remedies to those problems;

¹ Personal interview, Mary Gade, director of the Illinois EPA, September 12, 1997. Subsequent quotes from Gade are from the interview unless otherwise indicated.

² Both the Clean Break program and the brownfield program are described later on in this paper.

information relevant to environmental problem-solving was perceived to be the sort that could be collected and centralized within an agency of experts, then translated into a series of one-size-fits-all regulations that prescribed acceptable technologies, cleanup methods, and single-purpose wilderness management plans. The public sector was the sector of choice for solving environmental problems, and punishment rather than cooperation was the method of choice for securing compliance on the part of the private sector.³

The new vision of environmental regulation embodies the following five attributes:

- it stresses problem-solving instead of primarily relying on punishment;
- it strives to balance competing values, both environmental values against other values, and some environmental values against other environmental values;
- it seeks flexibility in methods of compliance, so that companies can choose the lowest-cost way of following the law instead of having to follow a single prescribed way;
- it views the private sector as a key partner in environmental improvement; and,
- it tries to bring decisionmaking authority to the lowest possible level where it makes sense—so that local problems can have local solutions, state problems can have statewide solutions, and federal problems can have federal solutions.⁴

Many states have begun to implement reforms that embody these principles. Table 1 gives a brief summary of such reforms.⁵

Like all innovations, a number of barriers stand in the way of changing established practices. Some of the most obvious barriers are technical; indeed, often methods which we recognize today as obviously being better policy were not adopted earlier because they were technically difficult to implement. Lacking good direct measures of environmental variables, environmental agencies had to rely on crude proxies. One Nebraska regulator recalls the days of using “dust-ball buckets” to measure particulate matter. The agency would set out a bucket and, after 30 days, measure what was inside, amid the bugs and bird-droppings.⁶ In an age of widespread, serious environmental problems, such inexactness was acceptable; everyone knew what, broadly speaking, the environmental problems were, and the “grief-to-worth-it ratio” of analytically refining environmental measures was high. Today, though, when many major environmental problems have been addressed and minor environmental problems are harder to pinpoint, developing true performance measures acquires paramount importance.

Other barriers are of the more subtle, psychological kind. No one likes change, and participants must often be prodded in the right direction. This resistance to change appears not only in state and federal environmental agencies, but also in the regulated community. “It’s sort of funny,” Gade muses about some of her innovative environmental programs. “It’s not exactly as if people are flocking to our doors saying, ‘I

³ See Lynn Scarlett, *Environmentalism for a Dynamic World*, Progress and Freedom Foundation Essay No. 5, March 1996. See also *Getting Back on the Compliance Track*, National Environmental Policy Institute, Fall 1996, which recommends various approaches which would allow the U.S. EPA to use more integrated and balanced approaches to identifying and resolving environmental problems.

⁴ Lynn Scarlett, *New Environmentalism*, National Center for Policy Analysis, Policy Report No. 201, January 1997.

⁵ See, generally, *Building Partnerships for Accountable Devolution*, National Environmental Policy Institute, Fall 1996, which recommends various initiatives the U.S. EPA and the states could undertake to strengthen the federal-state relationship and to allow the states greater flexibility in ensuring environmental results.

⁶ This story was recounted at the Environmental Regulatory Innovations Conference, sponsored by the Environmental Council of the States, Minneapolis, Minn., November 5–7, 1997.

can't wait to try something innovative. Thank God we have this program!' and [our staff] is saying, 'No! No! We can't take another hundred of you.'" She recalls a senior executive from a company she regulated, who commented on a flexible compliance program, "I hate this! I want you to tell me what to do!"

TABLE 1 : Partial Summary of State Innovations					
State	Problem-solving	Balancing	Flexibility	Private stewardship	Local decision-making
Alabama		X			
Alaska	X				X
Arizona	X	X			X
Arkansas	X	X		X	
California	X	X			
Colorado	X	X	X		
Connecticut	X	X			
Delaware	X	X			
Florida	X			X	X
Georgia				X	
Hawaii					
Idaho	X				X
Illinois	X	X	X	X	
Indiana	X	X	X	X	X
Iowa	X				
Kansas	X				
Kentucky	X				
Louisiana					
Maine	X	X	X	X	
Maryland	X			X	
Massachusetts	X	X		X	X
Michigan	X	X	X		
Minnesota	X	X	X		
Mississippi	X	X			
Missouri	X	X		X	
Montana	X	X		X	
Nebraska		X		X	
Nevada	X	X			
New Hampshire	X				
New Jersey	X	X		X	
New Mexico	X				
New York	X	X	X	X	
North Carolina	X	X	X		
North Dakota					
Ohio	X	X			
Oklahoma	X	X			
Oregon	X	X			X
Pennsylvania	X	X	X		
Rhode Island	X	X			
South Carolina	X	X			X
South Dakota	X				
Tennessee	X	X			
Texas	X	X	X	X	
Utah	X	X			X
Vermont		X			
Virginia	X	X			
Washington	X	X	X	X	X
West Virginia					
Wisconsin	X	X	X		X
Wyoming	X				

Note: NEPI and ECOS surveys and other sources. This list is not intended to be comprehensive.

Many of the significant barriers stem from the state-federal relationship, particularly in the enforcement arena. In a sense, it should not be too surprising that states and the federal government have different ideas, and sometimes come into conflict, over environmental regulation.⁷ “I am probably going to be a kind of middle-of-the-roader or dove on [U.S.] EPA relations,” says John Hamilton, Commissioner of the Indiana Department of Environmental Management,

*because it doesn't get me too excited that we have problems every once in a while—because I think that we just always will—because there are differences in the way we look at things, differences in our responsibilities, and I think that we need to work real hard to generate shared information and to coordinate things, like on enforcement issues, which are important for us to talk a lot about. I do think that as the overall compliance issues are becoming more complicated—how do you utilize the whole range of compliance assurance, and how to have an integrated approach from technical assistance to criminal prosecutions—that relationship with the federal government becomes more complicated and more important to coordinate.*⁸

The case studies that follow illustrate both some of the successes of innovations in state environmental management and some of the barriers. Section I examines alternatives to punitive approaches, including compliance assistance and amnesty programs. Section II addresses programs that balance environmental concerns, focusing on brownfield redevelopment initiatives. Section III describes the quest for flexibility in environmental regulation and compliance, both on the individual facility level (Project XL and environmental management systems) and on the state level (determining equivalence in delegation decisions). Section IV gives an overview of initiatives that achieve environmental benefits by relying on market forces and private property. And Section V describes a few instances of decentralization and local partnerships, with some views on where the proper U.S. EPA role may lie in a world of devolution of environmental responsibilities.⁹

⁷ See, generally, *Getting Back on the Compliance Track*, pp. 16–27, 34–37.

⁸ Personal interview, John Hamilton, commissioner of the Indiana DEM, September 15, 1997.

⁹ A brief note on agency names. There is no particular pattern to the naming of state environmental agencies. Some state environmental agencies are called Environmental Protection Agencies (Illinois, Ohio, California—though the California agency is usually called Cal/EPA), some are called Departments of Environmental Protection (Pennsylvania); others are called Departments of Environmental Management (Indiana), Departments of Environmental Quality (Utah, Virginia), or Natural Resource Conservation Commissions (Texas, which is abbreviated TNRCC). Some states have two environmental agencies—one which takes care of standard air, water, and waste regulation, and another which takes care of natural resource management (parks, forests, species). The distinction, for example, between the Indiana DEM and the Indiana DNR (Department of Natural Resources), approximately mirrors the distinction, on the federal level, between the U.S. EPA and the Department of the Interior (which runs land management and endangered species programs). Each of these agencies will be called by its own name in this report—Illinois EPA, Pennsylvania DEP, Indiana DEM, and so on. To avoid confusion, the federal Environmental Protection Agency will always be called the U.S. EPA.

Part 1

Problem-Solving vs. Punishment

On May 30, 1997, a federal district court in Virginia upheld, in *United States v. Smithfield Foods*,¹⁰ a U.S. EPA enforcement action against Smithfield Foods for exceeding its Clean Water Act permit limit for phosphorous discharges, despite a consent order with the state of Virginia that extended the time period for the company's compliance with permit requirements. The U.S. EPA interpreted the state's failure to punish the company for its violations as a sign of "recalcitrant[ce]" and proof that federal action was necessary where state action had failed.¹¹ A Virginia DEQ official remarked,

*This ruling is a big move backward for state enforcement authority. It suggests to us that [the U.S.] EPA is saying that it just wants to fine people in volume to say that enforcement is being done. . . . Our feeling is that enforcement action should come from the states, but this [ruling] seems to suggest that we [states] will have to look to [the U.S.] EPA to see if what we're doing is okay and that's wrong.*¹²

Sentiments run high over the *Smithfield Foods* case. On the one hand, the U.S. EPA produced a lengthy list of violations of environmental laws, suggesting that Smithfield Foods had been a particularly egregious actor, and while the state of Virginia had addressed the violations through the consent order, reasonable people may still disagree on whether the state acted wisely in not punishing the company sooner.¹³ On the other hand, the impact of *Smithfield Foods* extends far beyond the facts in this particular case; as Becky Norton Dunlap, secretary of the Virginia DEQ, explained, the willingness of federal authorities to second-guess state authorities over local concerns (and the willingness of courts to side with the federal authorities) undercuts the state's legitimacy in dealing with its own regulated entities and undermines any state's ability to run its environmental programs differently than federal programs—in particular when it comes to choosing compliance assistance over enforcement.¹⁴

¹⁰ *United States v. Smithfield Foods*, No. 2:96cv1204 (E.D. Va. May 30, 1997).

¹¹ Testimony of Lois J. Schiffer, Assistant Attorney General, Environment and Natural Resources Division, before the Senate Committee on Environment and Public Works, regarding Enforcement of Environmental Laws, June 10, 1997.

¹² "Va. Officials Say Water Case Undermines State Enforcement," *State Environmental Monitor*, vol. 2, no. 7 (July 7, 1997), p. 4.

¹³ See testimony of Lois Schiffer, Assistant Attorney General, Environmental and Natural Resources Division, U.S. Department of Justice, before the Senate Committee on Environment and Public Works, June 10, 1997. See also Andrew Cain, "Beyer attacks Smithfield deal his party made," *The Washington Times*, August 20, 1997, p. C4. "The Smithfield violations appear to us to be anything but trivial," says Nancy Stoner, director of the U.S. EPA's Office of Planning Policy and Analysis. Correspondence between Stoner and Scott Bush, National Environmental Policy Institute, December 15, 1997, p. 2.

¹⁴ See testimony of Becky Norton Dunlap, Secretary, Virginia Department of Environmental Quality, before the Senate Committee on Environment and Public Works, June 10, 1997.

Since the birth of the modern environmental regulatory structure, environmental law has tended to cast business against environmentalists, the private sector against the public sector, and regulators against the regulated. The result was an emphasis on crimes and punishment. In fiscal year 1996, the U.S. EPA assessed \$76.7 million in criminal penalties, \$66.2 million in civil penalties, and \$30 million in administrative penalties. The agency pursued 2,728 enforcement actions in a single year (262 criminal referrals, 1,280 civil actions, and 1,186 administrative actions), not including state and local government enforcement activities (states pursued 9,739 enforcement actions during this period). Criminal enforcement continues to be the fastest-growing component of the U.S. EPA's enforcement program.¹⁵ Many laws encourage "citizen suits," even for minor, technical violations,¹⁶ so that U.S. EPA direct enforcement efforts understate the enforcement emphasis of modern environmental management.

Enforcement efforts are not unwarranted in themselves. But an emphasis on enforcement that leads to prosecution of sometimes trivial procedural violations is costly—and such efforts may inhibit rather than foster actual environmental improvements. An emphasis on criminal enforcement even when there is no intent to violate the law, no gross negligence, and little environmental impact simply expends scarce dollars on prosecutions rather than problem-solving.¹⁷

This section shows how states are moving away from the enforcement-centered vision of environmental policy, and toward one that concentrates on solving tangible environmental problems among the "innocent majority"—that part of the regulated community that violates environmental laws by accident or through honest confusion. This report focuses on two widespread ways of solving such problems—providing easily understandable compliance-assistance materials, and offering amnesty for innocent, minor violations. Table 2 shows the scope of problem-solving-oriented reforms, including compliance-assistance programs, voluntary pollution-prevention efforts, permit streamlining, and amnesty programs.

A. The Compliance Warrior from California

"I'm not a warm and fuzzy person," says Jim Morgester, compliance division chief for the Air Resources Board at the California EPA. "I am a dyed-in-the-wool enforcement type. I have a military background."¹⁸ But while Morgester has been brought up on enforcement, he realizes that enforcement is merely a tool to reach a broader goal—compliance:

My job, as the chief enforcement officer, is basically to get compliance. I mean, that's the bottom line. . . . None of the air quality regulations that are out there, no matter how well intended and no matter how well envisioned, are going to do anything for the public health unless people comply with the regulations.

¹⁵ U.S. Environmental Protection Agency, *FY 1996 Enforcement and Compliance Assurance Accomplishments Report* (May 1997), pp. 2-2-2-3; see also *Getting Back on the Compliance Track*, pp. 20–21.

¹⁶ See Michael S. Greve, "Private Enforcement, Private Rewards: How Environmental Citizen Suits Became an Entitlement Program," pp. 105–128, in Michael S. Greve and Fred L. Smith, Jr., *Environmental Politics: Public Costs, Private Rewards* (New York: Praeger, 1992).

¹⁷ See Scarlett, *Environmentalism for a Dynamic World*, p. 4, and Scarlett, *New Environmentalism*. See also Alexander Volokh and Roger Marzulla, *Environmental Enforcement: In Search of Both Effectiveness and Fairness* (Reason Foundation Policy Study No. 210, August 1996). In principle, the U.S. EPA also recognizes this point. "Although we must maintain an imposing enforcement presence as a means of deterring noncompliance, traditional enforcement should be seen as a tool for achieving the broader goal of compliance and not as an end unto itself." Memo from Carol Browner to All EPA Employees, October 12, 1993, re New Strategic Enforcement Organization, p. 2.

¹⁸ Personal interview, Jim Morgester, Chief, Compliance Division, Air Resources Board, Cal/EPA, September 10, 1997. Subsequent quotes from Morgester are from the interview unless otherwise indicated.

The problem, as Morgester saw it, was that on average 40 percent of the sources he was inspecting were out of compliance. His goal was to achieve a 95 percent compliance rate. The reason for the widespread noncompliance, Morgester concluded, was that the rules and regulations were written by technical people, who were well-meaning but whose terminology was difficult to understand; rewritten by attorneys in their own language; and finally rewritten by politicians. The result is “not intelligible to a lot of people.”

The biggest problem, in short, was that regulated entities could not understand what they had to do. “I don’t care about being nice. I care about getting people to comply, and I will use whatever it takes. If I thought that if I put half the population in jail I could get what I wanted, that would be fine by me. But that doesn’t work.” Morgester divides regulated entities into three groups—big industries with the wherewithal to hire environmental auditors and consultants, and who understand the regulations; smaller businesses that want to do the right thing but don’t have the resources to figure out what that is in their day-to-day operations; and those who, “even if they knew what the right thing was, weren’t going to do it anyhow.” And while compliance assistance may be the better approach for the second group, “I would rather spend my traditional law enforcement resources on the third class, because it’s easier for me socially and politically to bust the bad guys.”

To try to separate the good actors from the bad actors, California developed the Compliance Assistance Program in 1988, before compliance-assistance programs had become popular nationwide. The program developed two main sorts of compliance-assistance materials. The first set of materials is a set of large, blue, three-ring binders that contain a complete compliance-assistance manual for a certain source category or a certain type of control device. These manuals are targeted at technically knowledgeable managers and are not lists of regulations, but strive to give useful information regarding how to do what a company might want to do. The second set of materials is targeted at the actual worker, “the person whose hand is on the switch.” These materials are more accessible to the layman and are written in a nontechnical style. They are mainly in comic book form and are also published in Spanish and in Korean, depending on the type of business being targeted.¹⁹

Cal/EPA has done some studies of the effectiveness of the compliance assistance program. In the early ’90s, a district audit showed high noncompliance rates (about 49 percent for solvent cleaning, for instance);²⁰ Cal/EPA discovered that the manuals (both the technical books and the comic books) reduced noncompliance by 50 to 60 percent.²¹ By using gasoline vapor recovery handbooks, one major gasoline retailer reduced emission-related violations by 73 percent to 90 percent.²² In fiscal year 1997, Cal/EPA distributed over 5,000 blue books and 96,000 comic books. As of September 10, 1997—“I love this when they get down to the numbers,” Morgester says—the total number of books distributed since 1988 was 26,988 blue books and 584,491 comic books. The materials, and the compliance-assistance program in general, are welcomed by the regulated community. “Sure, they love it. Especially if it’s free.”

¹⁹ While this paper concentrates primarily on state programs, note that the U.S. EPA has also expanded its compliance assistance approaches over the last few years, particularly for small businesses. The U.S. EPA uses plain English and foreign-language comic books and hands-on manuals and has also established Compliance Assistance Centers for printing plants, small farms, auto service shops, and metal finishing operations.

²⁰ Cal/EPA, Air Resources Board, *Compliance Assistance Program*, slide presentation.

²¹ Morgester interview.

²² Cal/EPA, Air Resources Board, *The Compliance Assistance Program: A New Approach to Increasing Compliance and Lowering Emissions*, pamphlet.

TABLE 2: Innovations — Problem Solving Vs. Punishment

Arizona	Partnership for Pollution Prevention; Safe Drinking Water Act Interim Monitoring Relief
Arkansas	Mentor-Protégé Partnerships
California	Compliance Assistance Program; Permit Assistance Centers
Connecticut	Technical Assistance Program
Delaware	Permitting Reform Program; Technology-Enabled Permitting
Florida	Major Reduction in Resource Conservation and Recovery Act Reporting
Idaho	Community Mandates Pilot Project; Compliance and Technical Assistance Program for Small and Medium-Sized Generators of Hazardous Waste; Fifteen-Day Permit Turnaround Project
Illinois	Clean Break; Hazardous Waste Research and Information Center
Indiana	Environmental Circuit Rider Program; Environmental Compliance and Technical Assistance Program; Nitrate Workshops
Iowa	Regulatory Assistance Program; University of Iowa Waste Reduction Center
Kentucky	Pollution Prevention Center
Maine	Model Facility Demonstration Project; Small Business Compliance Incentives Policy
Maryland	Environmental Permit Service Center; Maryland State Programmatic General Permit
Massachusetts	Office of Technical Assistance
Michigan	1-800 Customer Assistance Service Initiative; Environmental Assistance Division; Regulatory Reform
Minnesota	Auto Team
Mississippi	UST Compliance School
Missouri	National Pork Producers Council Environmental Assurance Program; Permit Coordination; Technical Assistance Program
Nevada	Compliance Assistance Program for Small Quantity Generators of Hazardous Waste
New Hampshire	Environmental Technology Initiative; Resource Conservation and Recovery Act Inspection Targeting Strategy
New Jersey	Office of Dispute Resolution; Office of Innovative Technology and Market Development
New Mexico	Listening to Industry
New York	Amnesty Program for Small Business Permits; Amnesty/Voluntary Compliance Agreements; General Permit for Salvaging Storm Damaged Timber; Review Streamlining for Clean Water Act; Small Business Stationary Source Technical and Environmental Compliance Assistance Program; Use of Alternative Dispute Resolution
North Carolina	Wetlands Restoration Program
Ohio	Ohio Drycleaner Initiative; STARShip Training
Oklahoma	DEQ Automated Permitting System; DEQ/EPA Joint Inspections; Environmental Complaints and Local Reviews; Permit Checklists; Permit Tracking; Reduced Monitoring and Reporting; Simplified Uniform Permitting for Environmental Regulation (SUPER)
Oregon	Environmental Partnerships for Oregon Communities; Federal Operating Permit Application Pilot Project; VOC Limited Amnesty Project
Pennsylvania	Focus on the Year 2000; Money-Back Guarantee Permit Review Program; Office of Pollution Prevention and Compliance Assistance; Pre-Application Review Process; Regulatory Basics Initiative; Small Business Stationary Source Technical and Environmental Compliance Assistance Program (AIRHELP)
Rhode Island	Office of Technical and Customer Assistance
South Carolina	Agency Liaisons and Streamlined Permitting Program
Tennessee	Small Business Assistance
Washington	Compliance Assurance MOA and Performance Partnership Agreement with EPA; Coordinated Permit Process; Dairy Farm NPDES Permit Program; Prepayment Agreements; Single Industry Campaigns
Wisconsin	Consolidated Cleanup Program; University of Wisconsin Solid and Hazardous Waste Education Center

Source: NEPI and ECOS surveys and other sources.

The compliance-assistance materials are even appreciated in other states, largely because other states perceive U.S. EPA training materials to be inadequate. (Morgester loves what providing compliance materials to other states does for his prestige, but wonders whether the U.S. EPA shouldn't come up with its own compliance-assistance materials at the same time that it promulgates new regulations.) John Kelley of

the Illinois EPA, for instance, loves the books, though he has had difficulty convincing his lawyers that plain language guides can capture all the substance of the regulations without leaving significant loopholes.²³

Because of the high turnover rate in industry, compliance assistance, to be effective, must be ongoing. New employees have to be educated anew, or habits of compliance fall by the wayside. Morgester believes the success of the program rests on inspections. Whether the inspector is inspecting the facility for compliance-assistance purposes or for enforcement purposes, his enforcement is crucial to raise the regulated community's level of awareness and their willingness to comply. It also rests on traditional enforcement, which ultimately drives the regulated community to the compliance-assistance program.

This last point is crucial to Morgester, who believes that too many people separate compliance-assistance and enforcement programs conceptually:²⁴

I don't do that. The best compliance-assistance people are the enforcement people. The enforcement people write [the compliance manuals] because they are the ones who are truly out there and truly know what the issues are. You can have compliance and you can have an even-handed, credible enforcement program. They can go hand in hand, and they can walk together, and then you can be the same person.

The sort of compliance-assistance and enforcement program to avoid, says Morgester, is one where enforcement officers see their job as writing tickets, and compliance-assistance people see their job as handing out blue books. Such programs foster tension between the two divisions, as they encourage the belief that there are two competing and mutually exclusive philosophies at work within the agency:

You have only one goal, and that one goal is: I want the emissions to the atmosphere to be reduced so that we get the benefit of the rules and regulations. That, to me, is enforcement. And if I can get that by being kinder or gentler or nicer-smelling, by buying them lunch, if I had the resources, I would buy them lunch in a second. If I can get that by giving them a blue book, I would give them a blue book in a second. If I get that by giving them a notice of violation and threatening to put them in jail, I will do that in a second. But in the real world no one of those does the job.

While the separation and conflict between enforcement and compliance assistance may be counterproductive—Morgester claims to get around this problem by running them both—it is precisely the philosophy that prevails at many environmental agencies, including the U.S. EPA. “You cannot and should not ever separate your compliance-assistance, warm-and-fuzzy people from your traditional law enforcement. It's a big mistake, and it does nothing but give you headaches and you end up wasting resources,” concludes Morgester.

An Oklahoma regulator reiterated this perspective, noting that compliance and enforcement work in tandem. But even here, there is no single formula for restructuring. Some regulators argue that compliance assistance requires a different mindset from enforcement and that separating the two can increase the “customer-service” focus necessary to make compliance assistance effective. Most regulators agree, however, that

²³ Personal interview, John Kelley, Manager, Office of Small Business, Illinois EPA, September 12, 1997. Subsequent quotes from Kelley are from the interview unless otherwise indicated.

²⁴ See *Getting Back on the Compliance Track*, p. 28 (recommending integrating enforcement with compliance assistance).

enforcement should no longer “be the opening bid,” since most individuals and firms are willing to comply with environmental laws if the laws are understandable.²⁵

Increasingly, states are exploring nonregulatory approaches to achieving environmental benefits. To reduce pollution from farm chemicals, for example, Iowa has “relied almost exclusively on nonregulatory tools.” To protect groundwater, they put together a package that relied on a combination of taxes and fees on farm chemical use, combined with programs to provide education, technical assistance to farmers, research, and monitoring.²⁶ In Minnesota, auto repair shops make up about one-fourth of hazardous-waste generators, and are affected by more Pollution Control Agency programs than any other industry, but they tend to be small and have few resources. The Minnesota PCA has set up an “Auto Team,” a group of 17 PCA employees that helps auto repair and maintenance shops understand and comply with environmental regulations, for instance by bringing all relevant regulatory information together into an easy-to-understand format, or by preparing an environmental self-audit form specifically tailored to the auto industry.²⁷

B. A Clean Break for Illinois Businesses

Clean Break is an Illinois EPA program offering small businesses a one-time opportunity to receive assistance in identifying and complying with environmental rules. The program was inspired by other successful amnesty programs, section 507 of the federal Clean Air Act,²⁸ and library book-return programs. Under the Clean Break program, Illinois EPA inspectors audit participating businesses and find any environmental violations. The Illinois EPA makes a commitment not to refer the violations to the Illinois Attorney General’s Office, a State Attorney’s Office, or the U.S. EPA for enforcement, provided that the business participates productively in the program—meaning that it agrees to come into compliance within a reasonable time and follows through on its commitment—and as long as the violations aren’t criminal, harmful, intentional, or independently discovered by an enforcement agent.²⁹

In 1995, the Illinois EPA started the program with a pilot project in two industrial counties, including the city of Rockford. This pilot program lasted six months.³⁰ In 1996, for another six months, the program was opened statewide, but limited to two industrial sectors—printing businesses and auto-related businesses. Since the beginning of 1997, the program has been open to all small businesses in the state, where “small” is defined as “fewer than 200 employees.”³¹ “These are companies that may not have the financial wherewithal” to be familiar with all aspects of environmental law, Illinois EPA director Mary Gade says.

²⁵ Randy Wood, presentation to the Environmental Regulatory Innovations Conference, sponsored by the Environmental Council of the States, Minneapolis, Minn., November 5–7, 1997.

²⁶ DeWitt John, *Civic Environmentalism* (Washington, D.C.: CQ Press, 1994), pp. 86, 103.

²⁷ “Auto Team,” program description available from the Minnesota Pollution Control Agency.

²⁸ Section 507 of the Clean Air Act requires that every state set up a compliance-assistance and ombudsman program. These programs can work with businesses anonymously and withhold any of their findings from the state regulatory agency. This isn’t quite amnesty—in Illinois, the program is administered by the Department of Commerce and Community Affairs, which is separate from the Illinois EPA and has no power over Illinois EPA enforcement actions—but it is a confidential compliance-assistance program, which allows businesses to admit violations without fearing retribution. Personal communication, John Kelley.

²⁹ *The Amnesty Answer: Illinois Environmental Amnesty Program* (Illinois EPA and Illinois Department of Commerce and Community Affairs, February 1995).

³⁰ Illinois EPA, Illinois Department of Commerce and Community Affairs, and Rockford Area Chamber, *Clean Break Project: Final Report*.

³¹ *Clean Break*, Innovations in American Government 1997 Awards Program Semifinalist Application (Application No. 406).

Most of them don't have 200 employees, Gade explains (John Kelley, manager of the Office of Small Business at the Illinois EPA, estimates that most have, on average, ten to fifteen):

a lot of them are exactly three, or Ma and Pa at the drycleaner, frankly, and so a lot of people understand that some special assistance and aid to them is a good thing, and [a job] that the government ought to take on. It's something that government traditionally didn't [do].

According to Kelley, the Clean Break program has saved Illinois businesses over a million dollars—though this number should be viewed with caution, since it assumes that without the Clean Break program, the Illinois EPA would have found all the violations, prosecuted them all (whether administratively or civilly), and collected all the fines and won or settled all the cases. At about 500 participating businesses since 1995, this translates into an average savings of \$2,000 per company—a nontrivial sum for a small business.

The Clean Break program has been broadly popular in Illinois. Ed Myers, owner of Northern Star Plating, says, “It sets a person’s mind at ease who wants to do the right thing. It made you feel pretty good without a lot of risk.”³² Gade herself finds it “fairly gratifying” to hear businesspeople say, “My son and daughter are really proud of me for getting the certificate.” But not all of the Illinois EPA has signed on to the new compliance-assistance mindset; some are “schooled in the traditional command-and-control kinds of environmental regulation,” Kelley says, and in an agency traditionally segregated by medium (air, water, waste), not all regulators are comfortable with a multi-media program like Clean Break. Moreover, there is still an “extreme lack of trust between the regulated businesses and the Illinois EPA. There have been too many horror stories.”

Small businesses are wary of even talking to the Illinois EPA, let alone inviting its inspectors to tour their facilities, a testament to the punitive mindset that dominated previous regulatory efforts. Some elements of the environmental community believed, at first, that if small businesses were going to get a break (as indicated by the name of the program), they should not only come into compliance but also participate in additional pollution-prevention programs. The Clean Break program, as implemented, does not mandate more than compliance—too many mandates beyond what the law requires could hurt participation in the program, according to Kelley. Despite their concerns, environmental groups have not vigorously fought the program.

The U.S. EPA has not particularly helped with the program, but neither has it obstructed it. The Illinois officials who run the Clean Break program enjoy a “handshake” relationship with the U.S. EPA, though the U.S. EPA has stopped short of giving the Illinois EPA its full support. Still, generally, if a company is participating in the Clean Break program, the U.S. EPA will not venture in with an enforcement action. Once, when the Illinois EPA learned that the U.S. EPA was planning a major inspection initiative against drycleaners, John Kelley convinced the U.S. EPA to give him a few weeks to talk to the drycleaners and see if they would rather participate in Clean Break. As a result, 9 of the 15 targeted shops volunteered for Clean Break. U.S. EPA inspected the remaining 6 businesses and has not indicated any plans for next steps. Because of these inspections, and Clean Break publicity by drycleaner associations, over 200 drycleaners subsequently enrolled in Clean Break.³³

The U.S. EPA has, in the past, frowned on total immunity from prosecution, usually insisting that state agencies recover at least the “economic benefit” that companies gained from violating the law (see the

³² *Clean Break*, p. 3.

³³ Kelley interview.

section on audits). Clean Break does not demand that companies pay penalties equal to their “economic benefit,” because Illinois officials consider that any economic benefit from unintentional, minor violations is probably small, and because they believe that complete amnesty is an important tool to convince otherwise reluctant businesspeople to participate in the program. While the Governor’s Small Business Environmental Task Force, which first recommended the Clean Break program, discussed the possibility that amnesty for violators would be unfair to conscientious companies that had always been in compliance, it decided that it would be better to bring as many companies into compliance, ultimately leveling the playing field in the long run, than to allow continuing noncompliance.³⁴ Mary Gade says the U.S. EPA could, in theory, protest Clean Break’s amnesty provisions, though they have so far not pursued this line of thought, and she would fight them “tooth and nail” if they did.

By the Illinois EPA’s choice, the Clean Break program, in its current incarnation, was intended to expire in December. From the start, it was intended to be a one-time opportunity to come into compliance, and in any case, in its previous runs, most participants have not chosen to participate until the very end of the program.³⁵ Gade remembers:

For example, when we did the very first Clean Break pilot in Rockford, it was interesting. Because I really put myself out there on this, I felt really committed to it, we were doing it with great fanfare, and I would say to [environmental policy advisor] Roger [Kanerva], “How many people have come in this week?” And in the first few weeks of this limited program, which was supposed to run for three months, you could count them on less than one hand; I would say, “Anybody?” And then there was a rush. It was almost like filing your federal tax return. In the last week, it picked up nicely, thank God.

Similarly, in 1996, 27 percent of participating companies waited until the last week of the program to contact the agency. As for the 1997 program, only 100 companies had joined by early September, out of about 100,000 eligible small businesses that face environmental issues. “I suspect they’re all going to come in at Christmas,” Kelley mused then. He was right—of 425 companies that ultimately participated in 1997, 150 joined in the last two weeks of the year.³⁶

The Clean Break program had a few major constraints. One is the difficulty of communicating the existence of the program to the target community. Another is the regulated community’s continuing fear or distrust of the Illinois EPA. Another potential constraint could be the Illinois EPA’s long-term relationship with the U.S. EPA; while “handshake” relationships are better than no relationship at all, the quality of the handshake depends critically on who is in charge at the U.S. EPA. While this has not been an issue in past incarnations of the program, it may be in the future.

The Illinois EPA doesn’t have the resources to run the program on an ongoing basis; the program, instead of having its own staff, relies on resources from the whole agency. If the Illinois EPA believes that it has covered too small a portion of the regulated community, it may decide to reconfigure the program to figure out why not enough companies participated.³⁷ Mary Gade believes that more initiatives aimed at particular industrial sectors (such as auto repair shops or drycleaners) will probably work well, since one can target associations and chambers of commerce. In 1998, the Illinois EPA announced that it would continue to offer

³⁴ *Clean Break*, p. 9.

³⁵ Kelley and Gade interviews.

³⁶ Personal communication, John Kelley, January 9, 1998.

³⁷ Kelley and Gade interviews.

the program in collaboration with trade associations or other groups—in 1997, of the 425 participating companies, 300 were drycleaners, because of the promotion and outreach conducted by the drycleaners’ trade association. NORBIC, the North Business and Industrial Council, a trade association on the north side of Chicago, has recently signed up to promote the program among its members; the association does all the outreach, while the Illinois EPA still does the inspections.³⁸ But whatever form a successor to Clean Break takes, says Kelley, “it’s got to have that amnesty idea built in there somewhere, because otherwise, they’re certainly not going to invite anyone out to their place of business.”

C. Permit Streamlining: The Virtue of Simplicity

A problem-solving focus can also mean simplifying the compliance process. When Mississippi regulators decided to assess the permitting burden of environmental regulations, they discovered that a single facility might be required to submit permits that, stacked together, were over a foot high. Some of these permits were redundant; some were irrelevant to environmental quality. Mississippi’s environmental protection agency decided to experiment with a facility-wide, single-permit approach, which they dubbed an “environmental permit.” The permit covers all key activities.³⁹ They also are exploring use of more “general permits” and nonbinding pacts to improve environmental performance. Their “Coleman Pacts” are non-legal, nonbinding agreements between permit applicants and the agency that define mutual expectations. Finally, recognizing the importance of certainty and timeliness, the agency established time-certain deadlines by which decisions would be made. One Mississippi official, emphasizing the importance of reliable timeframes, lauded what he called the “Disneyland” approach, in which signs tell people standing in line how much longer they will have to wait. This certainty doesn’t shorten the wait, but it does allow one to set firm expectations and plan accordingly.⁴⁰

Oklahoma regulators, viewing their system as unresponsive and complicated, introduced their Simplified Uniform Program for Environmental Protection (SUPER). Like Mississippi, they set specific time lines and tracking systems for permits. Before introducing this system, they had no fast way even to let permit applicants know the status of their permits—it took, they noted, three days just to find out where the permit application was. And, when they first embarked on a new permit-tracking program, they discovered some unprocessed permit applications dating back as far as 1978. They now publish a weekly status report for all permits and have a goal of processing all permits within 90 days. In a recent check, with 500 permits in process, only one was over 90 days.

Oklahoma’s DEQ also established permit-assistance teams so that each permit applicant has a single point of contact within the system. They also simplified the permitting process to a uniform, single, three-tiered process, which replaced 100 different processes under the old system. Commenting on resistance to these changes, one DEQ official noted, “We are, sometimes, too enamored with the mystique of our own complexity.”

³⁸ Personal communication, John Kelley, January 9, 1998.

³⁹ See *Integrating Environmental Policy, a Blueprint for 21st Century Environmentalism*, National Environmental Policy Institute, Fall 1996, pp. 14–18, which recommends legislation directing the U.S. EPA to allow the states to issue multimedia, facility-wide permits (which could involve trading of pollutants) as long as there is a net environmental benefit, as defined by those closest to the problem.

⁴⁰ Information on both the Mississippi and Oklahoma programs were provided at the Environmental Regulatory Innovations Conference, sponsored by the Environmental Council of the States, Minneapolis, Minn., Nov. 5–7, 1997.

D. Protecting Companies That Discover Their Own Violations

Air pollution agencies used to think brewers generated few air emissions. But that changed when scientists at Coors Brewing Company became dissatisfied with the government's air emission estimates, which seemed grossly out of line with their brewers' intuition. In 1991 and 1992, Coors became the first major U.S. brewery to do a comprehensive, *voluntary* investigation of its VOC emissions.⁴¹ The audit confirmed their intuition—it found that when beer is spilled during the making, packaging, and disposal process, large quantities of VOCs are released into the air. Coors, which produces about 20 million barrels of beer per year, was releasing 650 to 750 tons of VOCs, or about 17 times more than anyone had suspected. Though it was not required to do so, Coors provided this information to public authorities.⁴²

Environmentalists, industry, and federal and state environmental regulators alike champion the idea of audits. The International Standards Organization, in its popular environmental management standards named ISO 14000, even requires self-auditing as a condition for ISO certification. But as a senior environmental official put it, "No good deed goes unpunished."⁴³ In July 1993, the Colorado Department of Health—allegedly under pressure from the U.S. EPA—issued Coors a compliance order containing a \$1.05 million civil penalty, plus a not-yet-determined "economic benefit payment," for the company's violations of state air pollution laws and regulations. Environmental agencies calculate "economic benefit payments," in theory, to reflect how much a company saved by not complying with the law. The 23-page order listed 189 violations—100 air pollution emission-notification violations, 56 permit violations, and 33 VOC violations. All but the 33 VOC violations were essentially claims that Coors hadn't submitted the proper paperwork to the Health Department—for VOC sources that no one even knew about until the audit.

This fine was the largest ever imposed by the state for an air pollution violation. Coors claimed it was being unfairly punished for voluntarily doing a study revealing air pollution problems that both regulators and major brewers had missed and charged that such fines would go a long way toward discouraging corporate environmental audits. The Coors study itself had taken 18 months and cost \$1.5 million.

In February 1994, the fine was reduced. Coors agreed to pay a "mere" \$237,000—a \$100,000 fine and a \$137,000 economic benefit payment—and to reduce annual VOC emissions by 193 tons, relinquish 70 tons of pollution allowances it held for the release of VOCs, and reduce its annual sulfur dioxide and nitrogen oxide emissions. The agreement also included a schedule to bring all the Coors emission sources into compliance with state regulations within two years.

⁴¹ Nancy Stoner, of the U.S. EPA, claims that Coors was required by law and by a compliance agreement with the state to analyze its air emissions for VOCs, to report its findings to the state, and to address any violations identified. Stoner-Bush correspondence, p. 2. However, Coors responds that neither the law nor the agreement required them to actually go out and measure their emissions through direct stack testing; the requirement could have been (and was expected to be) fulfilled by merely using generally accepted estimation methods—those same estimation methods that Coors proved wrong by actually doing direct testing. Personal communication, Jon Goldman, Coors Brewing Co.

⁴² Alexander Volokh, "Carrots over Sticks," *The Washington Monthly*, June 1997, p. 28. See also Volokh and Marzulla, *Environmental Enforcement*.

⁴³ Testimony of Carl A. Mattia, Vice President, Environment, Health, and Safety, The B. F. Goodrich Company, on behalf of the Corporate Environmental Enforcement Council, before the Commercial and Administrative Law Subcommittee, Committee on the Judiciary, U.S. House of Representatives, June 29, 1995, p. 2.

The Coors episode was the catalyst for Colorado to adopt an “audit privilege” law, which basically embodied the philosophy that it’s wrong to punish someone for voluntarily discovered, voluntarily revealed information that they otherwise wouldn’t have found out about or disclosed at all.

Most “audit-privilege” laws have two components: *privilege* and *immunity*. The “privilege” component guarantees that the audit is privileged information. In other words, information discovered in an audit, the audit documents themselves, or testimony about the audit or the documents, can’t be used as evidence against a company in an administrative, civil, or criminal proceeding. Actually, it should really be called “qualified privilege”; the law doesn’t cover information that the firm is already required to reveal by other regulations. Nor does it cover any information about violations discovered independently, for instance by a neighbor. And the law requires that the company, after having discovered evidence of a violation, promptly tell the appropriate environmental agency and fix the problem.

The “immunity” component protects companies that find, voluntarily reveal, and fix violations from penalties. The environmental agency can still require the company to take certain steps related to damage control, but punitive sanctions are forbidden. Again, the immunity is limited; it doesn’t apply to intentional or reckless violations, or to violations that caused on-site injury or substantial harm to people, property, or the environment.

Today, about 23 states have such laws (see Table 3), a handful of others are considering them, and bills to do the same on the federal level have been introduced in Congress. According to Russell Harding, commissioner of the Michigan DEP, ISO 14000 makes privilege especially necessary. Many companies plan to get ISO certification—essentially, an “our-company-has-responsible-environmental-practices” seal—but they don’t want their own audits used against them. “It is an issue of fear,” says Harding.⁴⁴ Regulated entities and the employees who provide the information for the audit feel that they can’t be entirely candid and thorough for fear of what regulators or third parties—through citizen suits—will do to them. Environmental law being what it is—complicated and technical—audits are sure to turn up *some* violation. This is particularly troublesome for small businesses which can’t afford to spend a lot of money on legal advice. When the costs of knowing the law are too high, companies will just risk violating the law. Either way, they may find themselves out of business.

Corporate surveys suggest that privilege laws could significantly increase both the willingness of organizations to conduct self-audits and the effectiveness of the audits themselves. Around 75 percent of companies already perform environmental audits, according to a 1995 Price Waterhouse survey.⁴⁵ Of those, 81 percent try to protect the audits using special legal mechanisms like the attorney-client privilege, the work product privilege, or the self-critical analysis privilege. But using the attorney-client privilege limits the usefulness of the audit, since the privilege is lost if a company shares the information with someone else, like the plant manager, the company scientists, or environmental experts.

Other entities, including many small businesses and nonprofit institutions, don’t do voluntary audits at all for fear of disclosure. The survey also showed that nearly two-thirds of companies that audit would expand their programs if penalties were eliminated for problems that the companies themselves identified, reported, and

⁴⁴ “Audit Debate Intensifies as States Act, Despite USEPA Concerns,” *State Environmental Monitor*, December 9, 1996, p. 23.

⁴⁵ Price Waterhouse, *The Voluntary Environmental Audit Survey of U.S. Business* (March 1995).

corrected. More than 45 percent of such companies explained that they're unwilling to expand their auditing program because the information could be used against them in citizen suits, toxic tort litigation, civil enforcement actions, or as a "road map of knowledge" in a criminal enforcement action. Among those companies that don't perform audits, 20 percent said that they fear that audit information could be used against the company.

	Privilege	Civil Immunity	Criminal Immunity
Alaska	X	X	
Arkansas	X		
Colorado	X	X	X
Idaho	X	X	X
Illinois	X		
Indiana	X		
Kansas	X	X	X
Kentucky	X		
Michigan	X	X	X
Minnesota		X	X
Mississippi	X	X	X
Montana		X	
Nevada	X	X	X
New Hampshire	X	X	X
Ohio	X	X	
Oregon	X		
Rhode Island	X	X	X
South Carolina	X	X	
South Dakota		X	X
Texas	X (no criminal)	X	
Utah	X (civil only)	X	
Virginia	X	X	
Wyoming	X	X	

Source: Hale and Dorr, LL.P., *Enacted State Environmental Audit Privilege and Immunity Laws*, October 30, 1997.

In Texas, Governor Bush signed the Texas Environmental Health and Safety Audit Privilege Act⁴⁶ into law on May 23, 1995, and by August 5, 1997, the Texas Natural Resources Conservation Commission had gotten 551 notices of intent-to-audit (which are required for claiming privilege, though not for claiming immunity). The TNRCC believes that most of those audits wouldn't have been done without the audit law. These audits resulted in over 90 voluntary disclosures—paperwork violations, accidental exceedences of emission limits, discovery of wrong data or unpermitted units. (Each company that finds violations submits one disclosure, which could contain more than one violation, so 90 disclosures means at least 90 violations.) The TNRCC hadn't discovered the violations in past inspections and would be unlikely to uncover them in the future because finding them would take expensive sampling, testing, and record-keeping review.⁴⁷

The U.S. EPA is not enthusiastic about the idea of environmental audit privilege laws. Enforcement actions often depend on "tips and confidential sources," and if this information now becomes privileged—so that

⁴⁶ Article 4447cc, Vernon's Civil Statutes, amended by HB3459, effective September 1, 1997.

⁴⁷ Personal interview, John Riley, Director, Litigation Support Division, TNRCC, August 27, 1997. See also Lisa K. Anderson, "Audit Privilege Law Delivers Environmental Benefits in Texas," *Washington Legal Foundation Legal Backgrounder*, vol. 11, no. 43 (November 15, 1996).

employees' testimony about the audit is unusable—enforcers' jobs become tougher.⁴⁸ “What do you need privilege for?” a U.S. EPA official asked *State Environmental Monitor*. If a company uses privilege for a trivial violation, “it will make people say, ‘What are you hiding?’” And if a company uses privilege for a serious violation, it will “get bad press.” “The leap from ‘auditing is good’ to ‘privilege is needed’ is a big leap,” the official added.⁴⁹ Many attorneys general agree. The National District Attorneys Association, which opposes audit privilege, wrote in a June 7, 1996 letter to Rep. Gary Condit (D-Calif.) (an audit supporter) that corporate records are often needed to make a determination that “knowledge and intent” were involved in a violation and that criminal charges are warranted. “To overcome a privilege,” the district attorneys wrote, “and successfully prosecute a criminal act of any type, requires the state to undergo great hardship and runs a high risk of a conviction being overturned if any taint can be shown or even intimidated.”⁵⁰ Some environmentalists also oppose audit-privilege laws, branding them as “secrecy laws.”

Federal regulators are also concerned about immunity. “Economic benefit payments” have become a staple of federal environmental enforcement, and federal officials believe that such payments are necessary to prevent companies from profiting from their violations of environmental laws. Immunity, which would prevent the government from imposing any penalties, may make it difficult for the government to guarantee a “level playing field.” The U.S. EPA has its own Self-Policing policy, under which 229 companies have disclosed environmental violations at more than 700 facilities nationally,⁵¹ though this policy is widely seen as being far less protective than many state policies.

State agencies, such as the TNRCC, dispute the U.S. EPA’s claim that audits hinder enforcement. It considers the Texas Audit Privilege Act as an additional enforcement resource. The TNRCC will never have enough resources to monitor *everybody*, and since environmental regulation already relies heavily on self-policing and self-reporting, the TNRCC might as well make it easier for the regulated to do their job. Colorado reports that enforcement efforts have actually increased since passage of its audit-protection law. More important, they have found that regulated entities are actually paying their fines rather than fighting them, since they now see the entire process as more reasonable.⁵²

The regulated community also takes issue with the U.S. EPA’s attitude toward privilege. Companies consider privilege to be crucial because the audit document doesn’t just reveal violations. A good audit document is a frank discussion of the environmental effects of all company processes—some of which may be proprietary—revealing in detail the thoughts and judgments of company scientists. The conclusion of an audit document may include possible environmental violations—which always have to be revealed. But while the public has an interest in knowing actual violations, the public is not entitled to know about all proprietary company processes, nor is it entitled to know the details of the thought processes of company scientists.

⁴⁸ Nancy Stoner at the U.S. EPA points out that the Price Waterhouse survey also revealed that 96 percent of companies who audit said that one of their motivating reasons is to identify and correct problems before they are discovered by inspectors. According to Stoner, this suggests that legislation that hinders enforcement, like audit privilege legislation, may actually decrease the incentives for prompt correction of violations. Stoner-Bush correspondence, p. 2. However, it is not clear how this statistic applies to the audit debate, since even the most protective audit privilege laws do not restrict environmental officials’ inspection power.

⁴⁹ “Audit Debate Intensifies as States Act,” p. 24.

⁵⁰ *Ibid.*, p. 25.

⁵¹ Stoner-Bush correspondence, p. 3.

⁵² Reported at the Environmental Regulatory Innovations Conference, sponsored by the Environmental Council of the States, Minneapolis, Minn., Nov. 5-7, 1997.

Even with audit laws the way they are now, nothing prevents citizen plaintiffs from suing companies that do audits. Immunity only protects a company against the government, and not against anyone else. When a company audits, it is taking a gamble. It may benefit from finding out about its violations and, by fixing them, avoiding government fines and future lawsuits. But it may lose by being sued by citizen plaintiffs who have now found out about its past violations. To ask companies to be frank about their environmental problems and their trade secrets—in front of the entire world, which may sue them—may be equivalent to asking companies not to do audits.

Finally, there is the point about penalties, especially “economic benefit payments,” being necessary to maintain a “level playing field,” so that no company benefits from noncompliance. Consider Coors, which did the \$1.5 million audit, told the agency, and paid the \$237,000. All other brewers—which had the same (unknown) noncompliance problem, and which therefore had the same (unintended) economic benefit from noncompliance—did not audit, revealed nothing, and paid nothing. To Coors, the U.S. EPA’s talk of a level playing field must savor but of shallow wit.

Even if the U.S. EPA is right that audit laws make enforcement harder, this still begs the question of which should take precedence in environmental law—prosecuting a company or improving the environment. If the threat of prosecution prevents a company from taking action that would improve the environment, then making the enforcers’ jobs tougher, in those cases, may be a good idea. As Howard Wetters, a Democratic state representative from Michigan, put it, “We want to make sure the environment is cleaned up. We’re more interested in that, than in simply punishing people. I think that philosophy, as I’ve seen it in agriculture, has been a far more successful way of enforcing and regulating than through the adversarial process we have used to enforce environmental laws.”⁵³

At one point, the U.S. EPA even suggested (over the objections of many in Congress) that it might increase enforcement—including “overfiling,” or filing its own lawsuit if it dislikes what the state is doing—in states that had highly protective audit laws like Michigan, Colorado, and Texas; moreover, it suggested it might “take back” a whole range of activities currently delegated to the states, like solid waste management, wastewater permitting, or asbestos programs.⁵⁴ Environmental groups, such as the Environmental Defense Fund, weighed in on the issue as well, filing formal complaints against the continued delegation of federal programs in states with audit laws.⁵⁵ The U.S. EPA has stated before Congress that it will not arbitrarily target companies in states with audit privilege and immunity laws,⁵⁶ but state officials apparently still believe that the threat of overfiling is a real one.

Some states have moderated their audit bills to get the U.S. EPA to back down; their modifications run the gamut from removing criminal violations from the applicability of the law to dropping the notion of total immunity and pledging to recover “economic benefit.” Other states have decided not to adopt audit laws at all partly because they fear the U.S. EPA’s reaction. The bitterness between the states and the federal government regarding audits is one of the most contentious aspects of the state-federal relationship.

⁵³ “Environmental Ends and Means: Self-Audits and Immunity Privilege” (interview with Howard Wetters), *Michigan Privatization Report*, Fall 1996, p. 6.

⁵⁴ “State Self-Audit Laws Raise USEPA Concerns About Delegation,” *State Environmental Monitor*, April 1, 1996, p. 6.

⁵⁵ John H. Cushman, Jr., “States Neglecting Pollution Rules, White House Says,” *New York Times*, December 15, 1996, p. 1. See also “Environmentalists Call on EPA to Include Louisiana in Audit Effort,” *Clean Air Report*, January 23, 1997, p. 20.

⁵⁶ Stoner-Bush correspondence, p. 3.

E. Conclusions and Recommendations

But this contentiousness is part of a larger phenomenon—the states and federal regulators’ different philosophies regarding compliance assistance and enforcement. While the U.S. EPA’s Office of Enforcement and Compliance Assistance, despite its inclusive name, focuses on enforcement, the states are moving toward more compliance assistance, reserving enforcement for “bad actors.” As Christophe Tulou, Secretary of the Delaware Department of Natural Resources and Environmental Control, puts it, “Enforcement is critical,” but

overly aggressive and ill-timed enforcement is a dare: it inspires polluters to assume an adversarial relationship with their environment and regulatory agencies, and to challenge enforcers to discover their misdeeds. Neither the states nor [the U.S.] EPA can afford that cat-and-mouse approach to environmental management; neither can our environment.⁵⁷

Initial, modest steps toward moving to a problem-solving focus rather than a punitive one can be accomplished within the existing federal and state statutory framework. A more consistent and comprehensive problem-solving approach will, however, likely require changes in federal and state statutes. The following guidelines suggest a combination of process changes and more comprehensive changes that should be explored:

- All states, and the federal government, should treat their compliance assistance and enforcement program as equals and run them in a balanced, coordinated way. Both compliance and enforcement should be viewed as means to attaining better environmental quality. Therefore, the number of inspections and enforcement actions, or the amount of compliance assistance, should not be the measure of success of these programs.
- States and the federal government should try to determine to what extent specific enforcement or compliance actions improve environmental quality and make programmatic decisions on that determination. This process requires establishing better baseline and environmental performance measurements.
- The federal government should defer to state decisions regarding audit protection, with federal focus turning to environmental quality measurements and outcomes. The U.S. EPA should establish clear “overfiling” guidelines and limitations. Congressional action may be necessary.
- The U.S. EPA should undertake a review of federal procedural requirements, similar to that undertaken by numerous states, in order to identify permit-requirement redundancies and duplications as well as irrelevant reporting requirements. Where applicable, the U.S. EPA and the states should also be required to set process-completion timeframes. The U.S. EPA is pursuing many of these initiatives in its efforts to reduce reporting requirements and in its dealings with ECOS, but they do not appear at this time to have a sufficient priority within the agency.

⁵⁷ Christophe Tulou, “Enforcement is Biggest Hurdle in State-USEPA Agreement,” *State Environmental Monitor*, vol. 2, no. 7 (July 7, 1997), p. 15.

P a r t 2

Balancing Different Goals

Enhancing quality of life requires optimizing among the many values that people hold. All production and consumption activities produce residuals. For every residual generated, some corresponding benefit is produced. And all production and consumption activities involve a series of trade-offs. Trade-offs are not merely between environmental and economic goals. Many trade-offs are between one set of risks and other risks. For example, pesticide run-off may contaminate waters, but pesticides help reduce food spoilage in the field, which means that less food needs to be planted to meet the same consumption requirements. Similarly, while water chlorination has helped prevent a whole range of water-borne diseases, from chronic diarrhea to typhoid fever, chlorination may also pose countervailing health risks.⁵⁸

The balancing of different environmental values is at the heart of much state environmental innovation.⁵⁹ In this section, we focus mainly on brownfield redevelopment programs in which states have attempted to achieve results rather than emphasizing procedure. “Brownfields” are a common name given to old, contaminated industrial sites.⁶⁰ A brownfield may have once belonged to a refinery, a chemical plant, a factory; it may have concentrations of various chemicals that make it difficult to redevelop in its present state, at least under current environmental law. The state and federal governments do not have enough resources to clean up every brownfield. Moreover, because of the time and expense, not to mention potential legal liability, involved in cleaning up any property, many landowners cannot afford to clean up their property, and cannot sell their property to anyone at an acceptable price. Rather than buy old, contaminated sites, developers are therefore more likely to develop “pristine” sites—sites without previous contamination. These sites are called “greenfields.” Perfectly good brownfields are passed up for redevelopment just because they are, so to speak, “brown.” Redeveloping brownfields would bring jobs to the inner city as well as alleviate old industrial contamination problems. This is why 33 states have some such program in place—15 have brownfield programs, 31 have more generalized voluntary remediation programs, and some have both (see Table 4).⁶¹

⁵⁸ Scarlett, *Environmentalism for a Dynamic World*, p. 4.

⁵⁹ See, generally, *Environmental Goals and Priorities: Four Building Blocks for Change*, National Environmental Policy Institute, Summer 1996, which recommends establishing national environmental goals, producing better environmental information, selectively reorganizing the U.S. EPA’s structure to facilitate changes, and improving stakeholder relationships.

⁶⁰ See *Beyond Brownfields: Idle Land, Suburban Sprawl, and the Law*, National Environmental Policy Institute, October 1995; *How Clean is Clean: Dynamics of Devolution*, National Environmental Policy Institute, March 1997.

⁶¹ *An Analysis of State Superfund Programs: 50-State Study, 1995 Update* (Environmental Law Institute, 1996), pp. 51–55.

TABLE 4 : States with Brownfield Programs and Voluntary Cleanup Programs		
	Voluntary cleanup programs	Brownfield programs
Alabama	X	
Arizona	X	
Arkansas		X
California	X	
Colorado	X	
Connecticut	X	X
Delaware	X	X
Illinois	X	X
Indiana	X	X
Maine	X	
Massachusetts	X	X
Michigan	X	X
Minnesota	X	X
Missouri	X	X
Montana	X	
Nebraska	X	
Nevada	X	
New Jersey	X	X
New York	X	
North Carolina	X	
Ohio	X	X
Oklahoma	X	
Oregon	X	X
Pennsylvania	X	X
Rhode Island	X	X
South Carolina	X	
Tennessee	X	
Texas	X	
Utah	X	
Vermont		X
Virginia	X	
Washington	X	
Wisconsin	X	

Source: *An Analysis of State Superfund Programs: 50-State Study, 1995 Update* (Environmental Law Institute, 1996), pp. 127–136.

Sites Environmental Assessment Act.⁶⁴ The Pennsylvania program standardizes cleanup procedures, sets realistic cleanup goals, grants liability releases to owners, developers, and other parties, and provides some funding assistance. About 300 sites have initiated cleanups and over 100 cleanups have been completed. Most of the cleanups are conducted at private, not taxpayer, expense.⁶⁵

The goal of the Pennsylvania program, according to DEP officials, was to avoid the prescriptive cleanup solutions that characterized federal and other state cleanup programs. While the Pennsylvania program is still prescriptive in some areas where DEP officials thought they could not avoid it, the regulations are by and

Table 5 illustrates other types of balancing reforms, which include the use of multimedia permits, which balance the competing (and not always compatible) goals of reducing air, water, and waste emissions; and performance standards, which try to accurately weight the different activities of state agencies and environmental conditions in the state to give a holistic picture of the state of a state's environment. Following the brownfield examples in this section, we discuss California's risk-reduction rules, which try to address environmental issues in a more multimedia way.

A. Pennsylvania's Land Recycling Program

The Pennsylvania DEP's Land Recycling Program is based on three 1995 laws—Act 2, the Land Recycling and Environmental Remediation Standards Act;⁶² Act 3, the Economic Development Agency, Fiduciary and Lender Environmental Liability Protection Act;⁶³ and Act 4, the Industrial

⁶² 25 Pa. Code Ch. 250.

⁶³ Act of May 19, 1995, P.L. 3, Act No. 1995–3, 35 P.S. 6027.1–6027.14.

⁶⁴ Act of May 19, 1995, P.L. 43, Act No. 1995–4, 35 P.S. 6028.1–6029.113.

⁶⁵ *Pennsylvania's Land Recycling Program*, Annual Report of Cleanup Activities, July 1997, p. I; see also *How Clean is Clean: Dynamics of Devolution*, pp. 30–39.

large performance-based to encourage the regulated community to develop innovative solutions to reducing environmental contamination.⁶⁶

“We have kind of taken a novel approach in Pennsylvania, trying to essentially base our cleanup program on sound science,” say DEP officials. Other state programs, and even the previous Pennsylvania program, required landowners to clean up their property to “background levels”—that is, “pristine” levels such as could be found in completely natural environments, regardless of whether such levels are justified by a focus on human health concerns. To DEP Secretary Jim Seif, this “purity and Garden of Eden”⁶⁷ approach, which was standard among politicians in the ’80s who were afraid to seem “pro-contamination,” makes for good political posturing but bad cleanup policy. It was “a practice which, of course, produced no cleanups” because of the extreme expense—and, sometimes, impossibility—of chasing after the last molecule of contamination. Instead of being based on background levels, cleanup standards under the Pennsylvania program are risk-based—that is, set at levels deemed to be adequately protective of human health and environment, taking into account the prospective use of the property, with residential properties, for instance, requiring more cleanup than industrial properties.

TABLE 5: Innovations — Balancing Different Goals

Illinois	New Environmental Performance Measures
Indiana	Multimedia Permitting
Massachusetts	Environmental Results Program
New Jersey	Facility-Wide Permit Program
New York	Comparative Risk (Multi-Media Pollution Prevention Strategic Planning); Index of Compliance Indicators; Multi-Media Permitting
Pennsylvania	All-In-One Coal Mine Permitting
Washington	Multimedia Permitting Pilot Project
Interstate	Multimedia Pollution Prevention-Oriented Permitting Project

Source: NEPI and ECOS surveys and other sources.

The Pennsylvania program also has a number of other innovative characteristics. Before, cleanups were more difficult, partly because existing instruments were not reliable enough to say with certainty that background levels of contaminants had been attained. Instead of such a system, the state has adopted “practical quantitation limits” (PQLs), which do not require landowners to clean up their property beyond the reliable limits of existing measurement technology. Pennsylvania landowners can choose between three main types of cleanup standards—background standard, statewide health standard, and site-specific standard.

- The background standard deals with contamination at a site that is not related to any release at that site—for instance, in cases where a site was contaminated by a nearby property;
- The statewide health standard is medium-specific, takes into account whether or not the groundwater at the site is used and whether the use of the site is residential or industrial, and is otherwise uniform for all sites in the state;
- The site-specific standard is based on the unique characteristics of a site—soil permeability and organic content, the hydraulic gradient of the groundwater, whether the groundwater underneath the property is actually used by anyone downgradient for drinking water, and so on. Instead of assuming that people

⁶⁶ Personal interview, Jim Snyder, Director, Bureau of Land Recycling and Waste Management, Pennsylvania DEP, September 25, 1997. Subsequent quotes from Snyder are from the interview unless otherwise indicated.

⁶⁷ Personal interview, Jim Seif, Secretary, Pennsylvania DEP, September 25, 1997. Subsequent quotes from Seif are from the interview unless otherwise indicated.

can be exposed to a contaminant in the soil 365 days a year (for instance, when children accidentally eat the soil), Pennsylvania officials consider factors such as the number of days that the ground is frozen or covered with snow. While the resulting cleanup standards may not be as conservative as the U.S. EPA's standards, they are considerably more realistic.

Previous state law held current owners responsible for cleanup, even if previous owners were responsible for the contamination; as a result, it was sometimes more cost-effective to abandon a site than to restore it. The Pennsylvania program releases owners or developers of a site from liability associated with their cleanup, as long as the remediation is done according to the standards and procedures in the law. The law also extends this liability protection to financiers, such as economic development agencies, lenders, and fiduciaries. State grants or low-interest loans can cover up to 75 percent of the cost of completing an environmental study and implementing a cleanup plan. Once remediation has been done, the DEP grants a release of liability to the landowner, and the legislation also provides protection from citizens' suits.

Bethlehem Steel, for instance, signed a partnership agreement with the Smithsonian Institution in February 1996 to establish a new, not-for-profit museum corporation, the National Museum of Industrial History, on the site of Bethlehem's former 160-acre steel plant, which is being remediated under the new law. The museum will be part of a larger education and entertainment complex and will open in 2000 or 2001. "It's been said that Pennsylvania has the most progressive brownfields law in the country," says Curtis "Hank" Barnett, chairman and CEO of Bethlehem Steel. "Certainly, this is making possible the revitalization of our site in Bethlehem that might otherwise have had a very limited future. The potential economic impact is tremendous."⁶⁸ Four other Pennsylvania projects were finalists in the first annual Phoenix Awards competition for best remediated industrial site. One of these, the Industrial Plaza of York, won the award for the Private Project Category. Once the 6.2-acre site of the York Manufacturing Company, which produced large drive wheels for heating and cooling systems and was abandoned in 1958, the site now includes a business incubator, a micro-brewery, a specialty steel distributor, a computer service, and an automotive training center.⁶⁹

DEP officials, and the regulated community, are quite pleased with the program. It has "cut through the red tape" and "gives people the opportunity to solve problems," according to the DEP.⁷⁰ The regulations are brief and understandable compared to the federal program or the previous Pennsylvania program. Direct comparisons between the federal Superfund program and the Pennsylvania program are difficult, since different types of sites participate in the different programs, but by observation, we can see that in the brief existence of the Pennsylvania program, over 300 sites have entered the program and 100 have been cleaned up, while over the last 16 years, the Superfund program in Pennsylvania has remediated 33 of the 103 sites on the National Priority List, and just ten of these sites have now been removed from the list.⁷¹

B. Greening Brownfields in Illinois

The Illinois brownfield program shares many of the basic characteristics of the Pennsylvania program. There is a "basic philosophical difference," says Gary King of the Illinois EPA, "between redevelopment and site

⁶⁸ *Pennsylvania's Land Recycling Program*, pp. 24–25.

⁶⁹ *Ibid.*, p. 26.

⁷⁰ Snyder interview.

⁷¹ *Pennsylvania's Land Recycling Program*, p. 3.

remediation.”⁷² The goal of site remediation is to clean up sites so that people and the environment are protected; the goal of redevelopment is to build structures with value and use for people. There is a tension between these two goals, in that increased cleanup can delay the productive use of the land, while trying to use the land more quickly may involve a smaller degree of cleanup. While the goals are not inherently incompatible, an improperly designed brownfield redevelopment program could end up either unnecessarily threatening human health or unnecessarily thwarting land development.⁷³

In 1993, when Illinois developed its brownfield program, the regulated community complained that the state’s cleanup objectives were too stringent, that the requirements for cleanup were too vague, and that the costs of cleanup sometimes exceeded the value of the property. “How much money should society spend to clean up contaminated land?” King asks. One extreme position is “nothing”; another is “whatever it takes.” The state took a more middle ground, focusing instead on how contamination is managed, rejecting the notion of cleanup for its own sake, and standardizing cleanup requirements across all environmental programs. “The environment doesn’t care if the contamination came from a leaking drum or a waste pile,” says King.

In the final analysis, the Illinois EPA determined that redeveloping existing urban environments was more environmentally beneficial than encouraging—deliberately or inadvertently—development of agricultural lands or greenfields. Well managed, ongoing concerns, after all, probably threaten the environment less than abandoned, unmanaged operations. The Illinois EPA developed a Tiered Approach to Corrective Action Objectives, which it abbreviated to TACO. Like the Pennsylvania program, TACO gives landowners a choice between three cleanup methods—to baseline levels generally protective of public health, to site-specific levels, or to a level dictated by what Illinois officials call “formal or ‘common-sense’ risk assessment.”⁷⁴

When the cleanup is completed, the state issues a “no-further-remediation” letter. State approval of a remediation can be based either on engineering controls or on institutional controls (site-use characteristics).

- An engineered barrier is defined as “a barrier designed or verified using engineering practices that limits exposure to or controls migration of the contaminants of concern.” These could include clay, asphalt, or concrete caps; permanent structures like buildings or highways; three to ten feet of clean soil; slurry walls; or hydraulic control of groundwater. These engineered barriers can only be used in calculating cleanup objectives if they are intended to stay in place permanently; if they fail, the state approval of the remediation can be voided. The requirements for the maintenance of the engineering controls can be incorporated into the no-further-remediation letter.
- An institutional control is defined as “a legal mechanism for imposing a restriction on land use.” The primary sort of institutional control is the no-further-remediation letter itself, which says what can and can’t be done on the site. Institutional controls also include restrictive covenants, negative easements, local government ordinances controlling groundwater use, and highway authority agreements (these are specialized documents in cases where contamination has gone under a highway, which are particularly important for the leaking underground storage tank program). Institutional controls are required in a number of cases, including if the cleanup objectives are based on the assumption that the property will

⁷² Personal interview, Gary King, Manager, Division of Remediation Management, Bureau of Land, Illinois EPA, September 12, 1997. Subsequent quotes from King are from the interview unless otherwise indicated.

⁷³ *Brownfields: Cleanup and Land Use*, slide presentation by Gary King, Illinois EPA, August 1997.

⁷⁴ *Ibid.*

only be used for industrial or commercial purposes, or if the target cancer risk is greater than one-in-a-million or the target hazard quotient (a measure of non-cancer risk) is greater than one.⁷⁵

One of the innovative aspects of the Illinois program is its willingness to use land-use controls as part of the remediation process, when these are more cost-effective than cleaning the property up to baseline levels. The no-further-remediation letter, once recorded with the county record, forms a permanent part of the chain of title for the site, and prohibits the use of the site in a manner inconsistent with any land-use limitations. Fifty-four such letters were issued in 1996, and 31 were issued through July 1997. Acceptable local government ordinances include, for example, laws that prohibit the installation of new wells in cases where groundwater has been contaminated. Even where such ordinances exist, the site owner has to delineate the extent of the contamination and show that the contamination does not affect any existing wells or land beyond the jurisdiction of the ordinance. As of July 15, 1997, twelve communities had submitted ordinances under TACO, six of which have been approved. The ordinance for the city of Chicago was approved on July 3, 1997.⁷⁶

The state cannot—and, indeed, does not want to—protect landowners against all liability (for instance, common-law tort liability for actual harms caused by contamination), but it does provide protection against some forms of liability that might otherwise apply for the mere presence of contaminants, and it generally makes the process more definite and less open-ended for the property owner. The program also includes lender liability protection and is moving away from joint and several liability to proportional liability—so that who is required to pay coincides more closely with who is at fault for the contamination. Illinois has a memorandum of agreement with the federal government, which ensures that if a site has gone through the state program, it is of no interest to the federal government. Illinois is the only state to have not only an MOA with the federal government for Superfund, but also to have an MOU (memorandum of understanding) for RCRA.⁷⁷ While it is not a formal release from liability—in individual cases, the federal government may intervene—“it’s a demonstration that the state and federal government are approaching this issue in an organized, nonduplicative sort of way,” King says.

By fall 1997, 700 sites had signed up for the brownfields program and about 225 cleanups had been completed. In the first nine months of 1997, remediation was completed at 62 sites, which totaled 1,203 acres. The smallest site was 0.05 acres, about the size of a large house; the largest site was 556 acres. The state doesn’t keep numbers on the economic activity generated by its program. The number of sites entering the program and the number of cleanups that have been completed are growing rapidly.⁷⁸

C. The U.S. EPA’s Contentious Guidance

The state, though, is only allowed to protect landowners against its own actions; it is powerless against the federal government. For its part, the federal government maintains an extensive regulatory structure, authorized by the two main pieces of federal hazardous waste legislation, the Resource Conservation and Recovery Act (RCRA) and the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), also called Superfund. Thousands of sites listed in the CERCLIS (CERCLA Information System) are potential candidates for cleanup under CERCLA, and countless other sites are permitted under

⁷⁵ *Ibid.*

⁷⁶ *Ibid.*

⁷⁷ RCRA and Superfund, the two main pieces of U.S. hazardous-waste law, are discussed at greater length a few paragraphs down. An MOU is similar to an MOA, except that the term MOA is used in the context of Superfund, and MOU is used in the context of RCRA.

⁷⁸ Personal communication, Gary King, October 31, 1997.

RCRA and face the threat of federally mandated corrective action if the federal government deems it appropriate. The U.S. EPA recognizes that:

*financial and real estate sectors are sometimes reluctant to support the redevelopment of brownfields and lower risk sites because they are concerned about potential liability under CERCLA. Some developers have also expressed concern that the uncertainty that can arise from potentially overlapping Federal/State cleanup authorities can become a disincentive to cleanup and redevelopment of these sites.*⁷⁹

When the potential (federal) liability associated with cleanup is too high, even a total release from state liability may not be enough to encourage some cleanups. To alleviate this problem, eleven states have entered into memoranda of agreement (MOAs) with the U.S. EPA (see Table 6). Under the MOA, the U.S. EPA states that it recognizes the state program and will not take federal action against sites that have gone through the state brownfield program.

TABLE 6 : States With Memoranda of Agreement for the Superfund Program, and Memoranda of Understanding for the RCRA Program

	Superfund MOA	RCRA MOU
Colorado	X	
Delaware	X	
Illinois	X	X
Indiana	X	
Maryland	X	
Michigan	X	
Minnesota	X	
Missouri	X	
Rhode Island	X	
Texas	X	
Wisconsin	X	

The U.S. EPA, after reevaluating the criteria by which it decides whether an MOA is appropriate, released a new draft guidance on MOAs on September 9, 1997.⁸⁰ The guidance divided all sites into Tier I and Tier II sites (not to be confused with the tiers of the Illinois brownfield program). According to the draft guidance, state brownfield programs could be the subject of an MOA if they were limited to Tier II sites, the “lower risk” sites, but not

Source: U.S. EPA.

if they encompassed Tier I sites. In other words, as long as a state brownfield program drew the same (or equivalent) distinctions between Tier I and Tier II sites as the federal guidance, it would be eligible for an MOA. The screening process for distinguishing Tier I sites from Tier II sites was set forth in the guidance, but generally, the U.S. EPA summarized Tier I sites as those where:

- Drinking water supplies have been, or are likely to become, contaminated with a hazardous substance;
- Soils on or in close proximity to school, day care center, or residential properties have been contaminated by a hazardous substance three times above background levels;
- Toxic substances that bioaccumulate have been discharged into surface waters;
- Air releases of hazardous substances have been identified in a populated area;
- Sensitive environments have been contaminated; or

⁷⁹ Environmental Protection Agency, *Notice of Availability of Final Draft Guidance for Developing Superfund Memoranda of Agreement (MOA) Language Concerning State Voluntary Cleanup Programs* (henceforth *MOA Guidance*), 62 (174) Fed. Reg. 47,495 (September 9, 1997), p. 47,496.

⁸⁰ *MOA Guidance*, pp. 47,495–47,506.

- Releases would require immediate U.S. EPA action (for instance, fire or explosions).⁸¹

These criteria were more restrictive on the states than its previous criteria; they now demanded that the U.S. EPA be able to take a more active role in overseeing all but the lowest-priority sites, by excluding those programs with less oversight from the scope of federally approved brownfield programs. If a state insisted on allowing higher-risk sites to benefit from its brownfield program, it would lose the protection from federal enforcement that comes with an MOA.

Some states, including Pennsylvania, objected to this approach. “We think [the U.S.] EPA has a reasonable place at the table when you are dealing with a [federal Superfund] site,” said Jim Snyder, director of the Bureau of Land Recycling and Waste Management at the Pennsylvania DEP, “but we think that the federal government needs to basically stay out of state business when it relates to [state] brownfields and cleanup programs.” Snyder charged that the new U.S. EPA criteria were counterproductive in that they insisted on giving the U.S. EPA oversight of all state brownfield programs—while the whole point of brownfield programs is precisely to encourage cleanups by removing much of the red tape surrounding them. Even the U.S. EPA admits that one of the main advantages of a brownfield program is that it “encourages cleanup of sites . . . that might otherwise not be cleaned up because of limited Federal and State resources.”⁸²

By insisting on a more bureaucratic approach for the higher-risk sites, the U.S. EPA was essentially denying the benefits of a brownfield cleanup program to those sites that need such a program the most. “The federal government wants to be a part” of the brownfield success story, Snyder said, “but does not know how to be a part, other than through their typical bureaucratic paper-shuffling, authorization-approval processes. They see themselves as being Big Brother and Big Sister to the states, so to speak, and the states are not interested in that.”

The MOA guidance document also alarmed the Illinois EPA. According to Gary King, the guidance was so stringent that only about 5 percent of the sites that previously didn’t need federal involvement would continue to not need federal involvement under future MOAs, which seemed “pretty meaningless.” Moreover, the criteria embodied in the MOA guidance did not have a clear relationship to human health protection. Why should a site near a residence, with contamination over three times background levels, be disqualified from a brownfields program? Said King:

The whole logic of that is backwards, because the issue shouldn’t be [how much contamination] you have at the start, but what do you have at the finish? . . . Regardless of how contaminated it was at the start, it’s now O.K. [after being cleaned up through the brownfields program]—so what’s the point of saying that a site that is now O.K. shouldn’t have that protection?

Moreover, in setting arbitrary, non-health-based limits, the draft policy threatened to bring the brownfields program back in the direction of “cleanup for its own sake.” If the U.S. EPA guidance had gone into effect, it would have affected some previously signed memoranda almost immediately; existing memoranda would stay in effect for three years from the date of signature⁸³—which in Illinois’s case meant until Spring 1998.

On September 24, 1997, at its meeting in Burlington, Vt., the Environmental Council of the States (ECOS) unanimously endorsed a resolution calling on the U.S. EPA to scrap its draft guidance on state voluntary

⁸¹ *MOA Guidance*, p. 47,502.

⁸² *MOA Guidance*, p. 47,496.

⁸³ *MOA Guidance*, p. 47,499.

cleanup programs.⁸⁴ ECOS called on the U.S. EPA to honor the eleven MOAs already signed with states, separate funding for brownfield activities from brownfield program guidance or MOAs, work with states to encourage development of brownfield programs, and encourage state participation in Superfund. Ron Hammerschmidt, director of the environment division at the Kansas Department of Health and Environment, called the guidance “overly prescriptive.”⁸⁵ Ed Kitchen of the Ohio EPA explained that the states are “not saying ‘no’ to guidance, but . . . want a mechanism that is better than the guidance developed already.”⁸⁶ Kitchen criticized the draft document as “an intrusion into state programs that have worked effectively for some time.” State environmental agencies generally called for more performance-based guidance instead of process-based criteria.

Finally, in a November 26, 1997, memo to its regional offices, the U.S. EPA withdrew the guidance, citing lack of consensus. The memo did not state if or when the guidance would be reworked.⁸⁷

D. Pollution Prevention in California

Kim Wilhelm works in the Office of Pollution Prevention and Technology Development at the Department of Toxic Substances Control in Cal/EPA, and his job is to encourage businesses to produce less hazardous waste.

“We think multimedia—air, water, hazardous waste—and we act medium-specifically.”⁸⁸ Wilhelm deals with hazardous waste, but has counterparts in the other departments of Cal/EPA as well, even though their statutory mandates are different. “In the air program,” he explains, “they do not use the term ‘pollution prevention,’ and yet, in terms of measurable successes, they have probably had some of the best—requiring the oil industry to reformulate gasoline to take the lead out, [which led to] real measurable results in the real world: less lead . . . in children’s blood.” The solid waste regulators concentrate more on recycled market development; the pesticide regulators support research in integrated pest management to encourage farmers to use fewer pesticides when doing so does not hurt their yields.

While some of the pollution-prevention programs rely more on regulatory, mandatory methods, the hazardous-waste pollution-prevention program focuses more on voluntary approaches. The centerpiece of the hazardous-waste program is SB 14 of 1989,⁸⁹ which does not require source reduction or pollution prevention but merely requires that every four years businesses evaluate alternatives to their way of doing things—“the logic being that we are all creatures of habit and we get into the habit of doing things certain ways,” Wilhelm explains. “If they find cost-effective source-reduction alternatives that are going to be better for the environment, they are going to do it, and then we in government are not going to have to come in with a big old stick and try to beat them over the head or compile regulations and try to force them to make

⁸⁴ “The Long and Rocky Road,” *Solid Waste Report*, vol. 28, no. 39 (October 2, 1997), p. 305; “State Officials Ask EPA to Withdraw Guidance on MOAs for State Cleanups,” *Solid Waste Report*, vol. 28, no. 39 (October 2, 1997), p. 310.

⁸⁵ “State Officials Ask EPA to Withdraw Guidance on MOAs for State Cleanups.”

⁸⁶ “The Long and Rocky Road.”

⁸⁷ “State Voluntary Cleanup Guidance Withdrawn Due to Lack of Consensus,” *BNA Environment Reporter*, vol. 28, no. 31 (December 5, 1997), pp. 1533–34.

⁸⁸ Personal interview, Kim Wilhelm, Supervising Waste Management Engineer, Office of Pollution Prevention and Technology Development, Department of Toxic Substances Control, Cal/EPA, September 10, 1997. Subsequent quotes from Wilhelm are from the interview unless otherwise indicated.

⁸⁹ Cal. Health & Safety Code §§ 25244.12–.24

the changes.” Regulation tends to be inefficient in such cases, since hazardous waste is produced in so many unique ways, and one-size-fits-all rules are unlikely to produce environmental benefits across the board.

The law went into effect in 1989, the first plans were due in September 1991, and the second plans were due in September 1995. Cal/EPA did a postcard survey asking whether the law helped companies reduce waste and whether they found that source-reduction measures at least paid for the cost of doing the plan. Out of a couple of thousand postcards sent out in 1995—granted, in a highly unscientific study—about 82 percent of responding hazardous-waste generators reported that they had found waste-minimization opportunities over the last three years; 71 percent had reduced their generation of hazardous waste by up to 25 tons during this period. Over half reported that the SB 14 program had been a worthwhile exercise for their companies to complete, and 89 percent had saved money during the last three years due to a decrease in their generation of hazardous waste.⁹⁰ After the 1991 business plans, the pollution-prevention staff had projected that the petroleum industry could reduce hazardous-waste generation by about 25 percent; after the 1995 plan, the actual reduction had been 30 percent, and the industry itself estimated that another 20 percent was possible. “So that was something like 66,000 tons statewide of hazardous waste per year that is no longer produced. I think that it is a pretty good accomplishment for a staff of about 10 or 12 people that report to me,” Wilhelm muses.

Kim Wilhelm’s emphasis on balancing is evident not only in his effort to be cognizant of different media, but also in his realization that useful products need to be produced and that some amount of waste will be necessary. There are limits to how far one can push pollution prevention. “We try to assure that [companies that produce hazardous waste] manage it properly. We try to assure that they have taken a serious look at alternatives, and if there are not any there, well, that is life; that is science; that is engineering; that is reality.” While technology may change in the future, the pollution-prevention program grants that a zero-pollution world is not generally possible.

It is difficult to know precisely how effective Cal/EPA’s pollution-prevention efforts are because no one knows exactly why a firm engages in pollution-prevention activities. When the agency recommends that a company adopt a more “environmentally conscious” approach that also saves money, and when a company then adopts such an approach later on, we don’t know how much of that decision was because of the pollution-prevention efforts, how much was because the company found out through other means about that method’s cost-effectiveness, and how much was because, simply through the innovation process, newer technologies are generally cleaner than older ones. “Or they do it because the costs of hazardous waste disposal finally just got too damn expensive and they said, ‘We cannot afford this any more,’” Wilhelm adds. “Probably all of those factors do have some effect, but measuring it is a problem. . . . We are mostly engineers and scientists and chemists, and we probably need someone with a Ph.D. in marketing to really design statistical studies and to see cause and effect.” Wilhelm believes that pollution prevention in general (and research on the effectiveness of pollution prevention) is underfunded, especially compared to other functions of environmental agencies, such as enforcement, inspections, and fixing problems once they have already occurred.

Even when one makes a concerted effort to “think multimedia,” getting multimedia results is not always possible when one is forced to act “medium-specifically.” The California program is not perfectly multimedia; the way federal environmental laws are currently structured—that is, medium by medium, with the Clean Air Act separate from, and coexisting with, the Clean Water Act, RCRA, Superfund, and the Endangered Species Act—it is difficult to honestly make tradeoffs between emissions in different media. For

⁹⁰ Wilhelm interview, and Cal/EPA, *1995 SB 14 Survey Results*, June 13, 1995.

instance, if a company wants to massively decrease its hazardous waste generation, at the cost of mildly increasing its air emissions, it may not be able to do that if it is located in a “nonattainment area” under the Clean Air Act, like Los Angeles, even if the resulting set of emissions would decrease health risks overall. There are limits to how flexible a state can be in balancing the costs of different emissions and taking a holistic view of environmental quality.

Moreover, even within a particular medium, existing legislation may make it hard to use a coherent approach to reduce health risks or improve environmental quality. The hazardous waste regulations that stem from RCRA, for instance, impose detailed and technical requirements on companies that handle chemicals—requirements that often are not related to the actual risk that a substance poses.⁹¹ By the U.S. EPA’s own admission, the regulations are “complicated” and “convoluted”;⁹² a federal judge has called them “dense, turgid, and a bit circuitous”;⁹³ and a former U.S. EPA official has called RCRA “a regulatory cuckoo land of definition,” in which a substance that “wasn’t hazardous yesterday . . . is hazardous tomorrow, because we’ve changed the rules.”⁹⁴ If a hazardous material produced in one industry is usable in another industry, but needs to be reclaimed—for instance, filtered or otherwise processed—before it can be reused, the reclaimer may need a special RCRA hazardous-waste-handling permit. The cost of the permit may be prohibitive for a relatively small amount of the material.⁹⁵ As a result, rather than beneficially reusing a hazardous waste, a company may have to discard the hazardous waste in a hazardous-waste landfill. The very complexity and rigidity of hazardous-waste regulation makes accurately balancing the risks of reuse and the risks of disposal difficult.

While stringent, one-size-fits-all regulations may have been a lesser evil in an earlier time, when there were many shoddy operators and even inefficient laws could alleviate major environmental problems (in the late 1970s, when RCRA was enacted, California had very little hazardous-waste regulation of its own), state regulators are much more sophisticated today, and more capable of running pollution prevention programs that take a more balanced approach to reducing risk.

E. Other Balancing Acts

When allowed to function, brownfield programs are a classic example of balancing mechanisms that focus on results rather than process and balance competing goals. While the old hazardous waste cleanup scenario involved complicated oversight and expensive litigation because it valued environmental purity above all other values, state voluntary cleanup programs accept that all contaminated sites will not get cleaned up to background levels, nor should we wish them to be. Every dollar spent on chasing the last molecule is a dollar that cannot be spent adequately cleaning up another site, inspecting other facilities, bringing enforcement actions against intentional violators who harm human health and the environment, or addressing other, nonenvironmental goals, like police, health care, deficit reduction, or tax relief. In balancing different values, both environmental and nonenvironmental, these programs also emphasize results rather than process.

⁹¹ See, for instance, Alexander Volokh, *Recycling Hazardous Waste: How RCRA Has Recyclers Running Around in CERCLAs* (Reason Foundation Policy Study No. 197, October 1995).

⁹² *Rethinking the Definition of Solid Waste* (EPA Forum Agenda, April 28, 1993), p. 8.

⁹³ *United States v. White*, 766 F. Supp. 873, 880 (E.D. Wash. 1991).

⁹⁴ *Ibid.*, p. 882.

⁹⁵ Wilhelm interview.

Space does not permit elaborating on the many other types of reforms of this type, but a few are worth noting. Several states, including Indiana, Minnesota, Mississippi, New Jersey, New York, Ohio, Oklahoma, and Pennsylvania, have begun to transcend the limitations of traditional, medium-based regulation and permitting. Traditionally, environmental law has been compartmentalized by environmental medium (air, water, waste). Air-quality statutes valued air quality above all and did not consider whether air-emission reductions led to increases in, say, water emissions. Water-quality statutes valued water quality above all, and did not consider whether reductions in water discharges resulted in increases in waste generation. Trade-offs between media were uncoordinated; sometimes, a facility might not be given a permit for additional water discharges, even if the additional water discharges would have allowed it to reduce more-harmful air emissions. For example, a Wisconsin Department of Natural Resources official recounts how their efforts to tighten air-emission regulations associated with woodburning resulted in a halting of woodburning, with wood waste then being landfilled instead. A medium-specific focus prevents regulators from paying attention to this sort of cross-media transfer of waste or pollution problem.

With the advent of multimedia-permitting programs—usually on the state level—environmental agencies are better able to balance benefits and costs across different media. The Minnesota Pollution Control Agency has begun restructuring away from medium-specific divisions and programs, which it views as “problematic because many of our larger customers in the regulated community have multi-media environmental needs. The agency’s current organization, with air, water, and solid and hazardous ‘silos,’ does not serve them efficiently.” The Minnesota PCA proposes to move to a Geographic Model, with activities organized along functional rather than medium-specific lines.⁹⁶ Commissioner Peder Larson notes that the medium-specific structure of federal laws has had the perverse effect of pushing Minnesota to increase its staff devoted to overseeing air permits, even though air emissions in the state have declined substantially and other problems loom larger for the state.

Building on its existing structure, Mississippi has retained its medium-specific divisions but supplemented them with two functional divisions—one in charge of permits and the other in charge of compliance and enforcement. All permitting, compliance, and enforcement activities for air, water, and waste will be undertaken by the new functional divisions; the medium-specific divisions will be much smaller than under the old structure and will become “environmental quality stewards” who focus on pushing for and evaluating improvements in air, water and soil quality.⁹⁷

The budding movement toward true environmental performance standards, instead of mere cataloguing of enforcement, inspection, and compliance-assistance data, can also be expected to help states make the tough decisions on how to best spend their resources—which programs to defund and which ones to build up to achieve the best environmental results. Again in Minnesota, the PCA is so committed to accountability and measurement of results that in October 1997 it took an unusual step. Minnesota participates in a Performance Partnership Agreement (PPA) with the U.S. EPA, by which the federal government allows the state to run some federally funded environmental programs as long as the state commits to achieving a high level of environmental performance. The federal government only demands that federally funded programs be subject to the PPA, but the PCA took the unusual step of incorporating state-funded programs into the agreement as well—including sewage sludge management, emergency environmental response, and lead

⁹⁶ See Minnesota Pollution Control Agency, “Phase III Package,” July 22, 1997.

⁹⁷ Information presented at the Environmental Regulatory Innovations Conference, sponsored by the Environmental Council of the States, Minneapolis, Minn., November 5–7, 1997.

reduction. This fits in with the PCA's stated goal that each environmental activity relate to a well-defined environmental objective and achieve concrete, measurable results.⁹⁸

F. Conclusions and Recommendations

More-effective balancing of different sorts of environmental benefits—and balancing of environmental benefits against other nonenvironmental benefits—can, like other innovations, take place to some extent within the existing regulatory framework. More far-reaching innovations to balance goals may require federal and state statutory changes. The following guidelines and recommendations suggest some future near-term and longer-term directions for environmental programs:

- The federal government should defer to state brownfields programs, maintaining the very flexible initial approach that it took in approving memoranda of agreement with the states.
- States should continue to experiment with structural reforms that move toward functional rather than medium-specific programs; Congress should begin the process of evaluating ways to move toward a “unified” or “integrating” federal environmental statute, that would establish clearer procedures for devolving more authority to states, establish ambient environmental quality standards, and move federal environmental programs toward a functional rather than medium-specific focus.
- States and the U.S. EPA should take a more holistic approach to evaluating environmental performance, allowing firms to include ecosystem and habitat-protection plans among the criteria for evaluating what constitutes improved performance. Both the states and the U.S. EPA should move aggressively to develop performance measurements and ambient environmental quality information.
- States and the U.S. EPA should develop flexibility programs that allow states and dischargers to achieve existing or improved environmental performance in the most-efficient manner permissible.

⁹⁸ “Minnesota Goes Extra Mile By Folding State Programs Into PPA,” *State Environmental Monitor*, vol. 2, no. 12 (December 8, 1997), p. 10.

Part 3

“My Way or the Highway”: A Question of Flexibility

Complexity and change characterize nature and human interaction with it. Traditional regulations that prescribe technologies or mandate particular cleanup remedies ignore location-specific and ever-changing information critical to all production and consumption decisions. To take advantage of the knowledge residing within a particular plant, or at a specific hazardous waste site, or an individual farm, environmental policies need to foster flexibility.⁹⁹ Performance standards, in contrast to command-and-control regulations, allow individuals and firms to figure out how best to achieve the stated standards (to lower overall air pollution to a certain level, for instance).¹⁰⁰

This section will describe a few flexibility-enhancing state innovations and address the question of flexibility in more general terms in the context of state-federal relations; more such innovations are listed in Table 7.

Colorado	Environmental Leadership Program
Illinois	Environmental Management System Agreements
Indiana	Five-Star Drycleaner Recognition Program
Maine	Model Facility Demonstration Project; Environmental Excellence Program for Maine Paper Industry
Michigan	Clean Corporate Citizen Program
New York	“Beyond Compliance” Initiatives
N. Carolina	Environmental Management Systems (ISO 14000)
Pennsylvania	Reclamation in lieu of cash payment of civil penalties
Texas	Flexible Permits; Clean Industries 2000
Washington	Waivers for Environmental Excellence; Administrative Settlements Program
Wisconsin	Pulp/Paper Industry Pollution Prevention Partnership

Source: NEPI and ECOS surveys and other sources.

Indiana’s five-star drycleaner program encourages drycleaners to take actions the state deems “environmentally beneficial” not through regulation but by establishing a voluntary environmental rating system. While all drycleaners have to be in compliance with basic regulations, they can choose for themselves what further actions make sense in their unique situations. The same is true in Illinois, where the state is negotiating environmental management system (EMS) agreements, by which companies are given regulatory flexibility in exchange for pledging to achieve a certain level of environmental performance. The

⁹⁹ See *Reinventing the Vehicle for Environmental Management*, National Environmental Policy Institute, Summer 1995, pp. 77–89.

¹⁰⁰ Scarlett, *Environmentalism for a Dynamic World*, p. 4.

Illinois EMS system was inspired in part by the failed Illinois experience with the federal XL program. These programs, and California's experience in trying to get its system of air-quality regulation declared equivalent to federal standards, are three case studies of state efforts to introduce flexibility.

A. The Stars Come Out in Indiana

Indiana has placed great reliance on compliance assistance, flexible “beyond compliance” concepts, and voluntary pollution-prevention efforts. When the National Emission Standards for Hazardous Air Pollutants, or NESHAPs, were promulgated pursuant to the 1990 federal Clean Air Act Amendments (and incorporated into the state air-quality rules), the Indiana DEM actively tried to identify all the sources that were now going to be subject to the new rules and help them understand the rules. The newly subject businesses were ones that, till then, had had little regulatory exposure (drycleaners, chrome electroplaters, various small degreasing operations), had trouble distinguishing between different environmental agencies (and believed they were all the U.S. EPA), and could not understand complicated regulations.¹⁰¹

Indiana's drycleaner program allows regulated entities substantial flexibility in what environmental investments they pursue. Indiana drycleaners can participate in the “Five Star Recognition Program,” which awards stars to drycleaners based on an environmental-ranking system, with five stars as the highest ranking.¹⁰²

- To qualify for one star, the drycleaner must comply with all applicable regulations, respond openly and honestly to neighbors' and customers' questions regarding solvents, “agree to strive to reduce their use of solvent,” and use licensed hazardous waste haulers for all hazardous waste even if the drycleaning operation is so small that it is “conditionally exempt.”
- To qualify for two stars, the drycleaner must, in addition, keep informational brochures on the counter and offer hazard-communication training for all employees.
- To qualify for three stars, the drycleaner must also accept plastic drycleaning bags that are returned by customers for recycling, use recycled bags on the customer's request, and attend environmental training sessions and conferences.
- To qualify for four stars, the drycleaner must also be an efficient solvent user—that is, he must clean at least 450 pounds of clothing (either through wet cleaning or dry cleaning) per gallon of solvent used.
- Finally, to qualify for the fifth star, the drycleaner must “do something extra for the environment,” such as use alternative technology.¹⁰³

Of 800 drycleaners in Indiana, about 125 participate in the program, which is now two years old. As more drycleaners acquire stars (for instance, as the new NESHAP rules mandate greater investments in

¹⁰¹ Personal interview, Mike Brooks, Section Chief, Program Planning and Policy Section, Office of Air Management, Indiana DEM, September 15, 1997. Subsequent quotes from Brooks are from the interview unless otherwise indicated. See also *Getting Back on the Compliance Track*, p. 35.

¹⁰² While the Five-Star Drycleaner Program, which adopts flexible approaches, is an improvement over one-size-fits-all approaches, it nonetheless suffers from other problems, which are common to environmental labeling and consumer-information initiatives generally. For a comprehensive discussion of the pitfalls of such initiatives, see Julian Morris and Lynn Scarlett, *Buying Green: Consumers, Product Labels and the Environment*, Reason Foundation Policy Study No. 217, November 1996.

¹⁰³ Indiana DEM, *Application for the Indiana Five Star Recognition Program*.

environmental technology), the requirements for earning stars may be increased, so that the five-star program continues to reward the “elite” of environmentally responsible drycleaners. The program is nonregulatory; if a drycleaner finds that it is not appropriate for his facility, he is free not to participate in the program, though he must, of course, still comply with all regulations.¹⁰⁴

The Indiana DEM is currently designing a similar program for auto body shops, though it is more complicated, because the business itself is technically more intricate. Auto body shops will receive a manual with all applicable requirements (in bulleted list form, under the label “You must:”) and recommended practices (under the label “You should:”). One-star shops must do all the “You must”s; the more “You should”s one does, the more stars one gets. The Indiana DEM also offers confidential compliance assistance; any problems uncovered during compliance assistance are kept strictly confidential, unless they pose some clear and immediate danger. “Instead of hammering people, we’re looking to help them,” says Cheri Storms, environmental manager with the DEM’s Compliance and Technical Assistance Program.¹⁰⁵ Gone, says Storms, are the days when “all there was was enforcement . . . you’d have an inspection and you’d find what they did wrong rather than going out and saying, ‘You know, there are a lot of regulations that you need to follow. We’ve prepared something to help you follow these.’” Some people at the DEM still believe in enforcement above all, “but that’s not the majority.”

The complexity of the regulations themselves can be a barrier to successful compliance assistance. There are limits to how “plain English” and understandable a compliance guide can be if the regulations are too complicated. U.S. EPA and Indiana DEM interpretations of rules change constantly, in response to changing conditions in the affected industries. The definitions of hazardous waste, as embodied in federal rules like RCRA, are notoriously counter-intuitive and difficult to understand, even for regulators, which makes compliance guides hard to develop. Moreover, the variety of products used by auto-body shops, and the complexity of the industry itself, are so great that Storms describes air-conditioning service as “brain surgery.” Storms wishes that the federal government would concentrate its resources on developing some of the basic scientific judgments on all of the different brake cleaners and other products that the states will eventually try to regulate.¹⁰⁶

Another barrier to any compliance assistance of this sort is simply identifying the universe of affected businesses—drycleaners, for instance, are typically small operations and aren’t required to be permitted in Indiana—and making them appreciate the importance of environmental investments. Mistrust of the government runs high among small businesses, and this problem was exacerbated by unscrupulous environmental consultants who charged the (mostly immigrant, low English-proficiency) business owners exorbitant prices to advise them (often wrongly) on how to come into compliance with the new regulations.¹⁰⁷ Moreover, the owner, the person at the front counter dealing with customers, the person who runs the machine, and the environmental manager are often the same person; at such facilities, noncompliance often simply results from time constraints. It doesn’t help that turnover at dry-cleaning establishments (and therefore the rate at which environmental compliance knowledge is lost) is high.¹⁰⁸

¹⁰⁴ Personal interview, Paula Smith, Environmental Manager, Office of Pollution Prevention and Technical Assistance, Indiana DEM, September 16, 1997. Subsequent quotes from Smith are from the interview unless otherwise indicated.

¹⁰⁵ Personal interview, Cheri Storms, Environmental Manager, Compliance and Technical Assistance Program, Indiana DEM, September 16, 1997. Subsequent quotes from Storms are from the interview unless otherwise indicated.

¹⁰⁶ Storms interview.

¹⁰⁷ Personal communication, Mark Amick, Environmental Manager, Air Toxics Program Development Section, Office of Air Management, Indiana DEM, September 15, 1997. Subsequent quotes from Amick are from the interview unless otherwise indicated.

¹⁰⁸ Brooks interview.

It also hasn't helped that Indiana DEM and U.S. EPA compliance-assistance efforts have sometimes overlapped and duplicated each other. Paula Smith, environmental manager with the DEM's Office of Pollution Prevention and Technical Assistance, tells of a drycleaner conference where the feeling was that "[the U.S.] EPA had their agenda and they'd been working with industry and all those kind of things, but that the states didn't exist." Smith suggests that if a state is already working on compliance-assistance materials in an area, the U.S. EPA, rather than working on the same area—and diluting the value, through confusion, of compliance assistance that the state has already done—should work on different topics, so that everyone can copy any successful program, whether state or federal, once it has been completed.

Nor has it helped that U.S. EPA compliance assistance is often less effective than state compliance assistance. The U.S. EPA, at one point, had sent notification packets to every dry cleaner that they found in the phone book; most drycleaners threw the packets away or otherwise didn't use them. The Indiana DEM tried to convince the drycleaners that the information they had received was important and tried to design materials that would actually be read. At other times, the U.S. EPA has provided plain English compliance-assistance guides—but up to ten months after the rules went into effect. Indiana DEM officials wish that the U.S. EPA had taken a more-constructive role from the start with respect to NESHAP compliance—for instance, providing compliance-assistance materials on time to the states, so that each state agency did not have to reinvent the wheel.¹⁰⁹

That the U.S. EPA has come in to do its own follow-up compliance inspections, according to Mike Brooks, has merely added to businesses' confusion over whom they answer to. "I think that people would rather talk to [Indiana DEM] than to [the U.S.] EPA," Brooks opines—

So I think that it is important to have a local perspective about compliance assistance, as opposed to [the U.S.] EPA providing documents or a Web site or whatever. I think that [the U.S.] EPA does not have the resources to go visit every drycleaner in the country. We really didn't have resources to visit every drycleaner in the state—but we did! . . . They need someone to come in and walk through the facility with them and explain what they need to do.

B. The XL Experience and Environmental Management Systems in Illinois

Roger Kanerva bristles at the mention of the word "XL." "Please don't use the XL word," the Illinois EPA's environmental policy advisor for environmental policy and safety admonishes. "We are not fans of XL."¹¹⁰

Project XL is a U.S. EPA effort to provide excellent corporate environmental performers with enhanced statutory and regulatory flexibility. It was designed to provide an alternative to the current system of medium-specific statutes and was initiated by the White House in a 1995 policy statement.¹¹¹ Project XL was characterized as an "enforcement experiment"; in theory, facilities which could demonstrate that they could attain superior environmental results would be able to obtain more flexible permit conditions. The U.S. EPA

¹⁰⁹ Amick interview.

¹¹⁰ Personal interview, Roger Kanerva, Environmental Policy Advisor, Environmental Policy and Safety, Illinois EPA, September 11, 1997. Subsequent quotes from Kanerva are from the interview unless otherwise indicated.

¹¹¹ President Clinton, *Reinventing Environmental Regulation*, March 16, 1995; see also *Reinventing the Vehicle for Environmental Management*, pp. 79–82.

provides this flexibility by using its enforcement discretion—in essence, choosing not to punish violations at participating facilities if the facility is acting in good faith.¹¹²

3M had applied for the XL program at plants in Minnesota and in Illinois. The Illinois EPA supported the project and worked with 3M to get the XL project approved. To be approved by the U.S. EPA as an XL project, a site had to demonstrate that it would achieve “superior” environmental performance—and the more flexibility it wanted, the higher the environmental performance it would have to demonstrate. However, adequate “superior environmental performance” turned out to be a moving target. “What you thought was superior before,” Kanerva recalls, “suddenly became even more down the road. And we were always one step behind their new definition of how wonderful your project had to be.” Finally, 3M dropped out of the XL program, and frustrated with the vagueness and inconsistency of the U.S. EPA’s criteria, the Illinois EPA refused to participate further.

The 3M XL project in Illinois never came close to being signed, and the problems experienced by 3M are similar to problems experienced with some other XL projects.¹¹³ Part of the problem seemed to be U.S. EPA inflexibility; part of the problem seemed to be that even if the U.S. EPA had wanted to be flexible, the statutes do not give companies much authority to pursue flexible approaches, and protection from citizen suits is limited.¹¹⁴ State environmental officials, through the Environmental Council of the States, charged that the U.S. EPA mishandled the project, both by adopting “rigid criteria . . . in the eleventh hour” and by not allowing a larger role for the states.¹¹⁵ Illinois EPA documents state more mildly that “[o]ur initial experiences with several XL projects show that more work is needed to get this federal innovation program operating effectively.”¹¹⁶ 3M itself shies away from blaming federal regulators, stating instead that “we just ran out of time. . . . [Negotiations] were just taking too long, and we had to start moving to make some changes in our facilities. We couldn’t wait for process to go through, and so we had to go back into the regular permitting process.”¹¹⁷

The Illinois EPA found it unfortunate that federal inflexibility and other factors had to sink what could have been a perfectly good experiment in regulatory flexibility. The Illinois EPA prepared Environmental Management System (EMS) legislation, which was sponsored by the governor, introduced into the legislature, and signed into law on June 13, 1996. The law gave the agency a five-year period, from 1996 to 2001, to enter into agreements with companies that wanted to try out new ways of complying with regulatory requirements.¹¹⁸ While this pilot EMS program encompasses companies that adopt full-fledged ISO 14000-type management systems, it is broader than that. It is also open to companies that want to streamline their permitting procedures or to any company that wants to adopt any sorts of “innovative environmental measures.”¹¹⁹ The Illinois EPA gives the following four key characteristics of an EMS:

¹¹² Terry Davies and Jan Mazurek, *Industry Incentives for Environmental Improvement: Evaluation of U.S. Federal Initiatives* (Global Environmental Management Initiative), pp. 31–32.

¹¹³ Several XL projects have moved forward with other companies, for instance Intel.

¹¹⁴ Davies and Mazurek, *Industry Incentives for Environmental Improvement*, pp. 36–43.

¹¹⁵ “States, Charging USEPA Bungled Project XL, Set Up Reform Group,” *State Environmental Monitor*, vol. 1, no. 8 (October 4, 1996), p. 3.

¹¹⁶ Illinois EPA, *Program Guidance Document for Participation in Pilot Program for EMS Agreements*, draft for public review/comment, October 1996, p. 2.

¹¹⁷ Personal communication, Tom Zosel, 3M, December 16, 1997.

¹¹⁸ *Ibid.*, p. 1.

¹¹⁹ Kanerva interview.

- Emphasis on actual environmental performance (i.e., results orientation) using a continuous improvement cycle;
- Focus on integration and use of pollution prevention as the preferred method for achieving environmental protection;
- Commitment to compliance assurance; and
- Extensive stakeholder involvement.¹²⁰

While the Illinois EPA believes ISO standards will be an important influence on company EMSs, it

*prefers to keep an open mind about pursuit of such systems or even other approaches that seek similar outcomes. For this program, the most important ingredient is the desire of a regulated entity to chart its own course for environmental progress and to be fully accountable for its performance.*¹²¹

The program is voluntary—no company must join, and the Illinois EPA is not bound to enter into agreements with any company.¹²²

In September 1997, Kanerva estimated that a state agreement with 3M was within about six months of being signed. 3M is optimistic about the EMS agreement: says Tom Zosel of 3M, “we get some operational flexibility, we get better relations with the local community, and the agency gets more information and oversight on our facilities in a way that is less regulatory and less command-and-control. We’re making commitments on what we’re going to achieve that’s better than what the regulations require.”¹²³ Regulatory flexibility is very important for a company like 3M. The time for a 3M product to be taken from concept to marketing has been cut in half over the last five years because of the need to be internationally competitive. When concept-to-marketing time was two years, six-to-nine-month waits for permit-change approvals were not so great a problem. Today, when concept-to-marketing time is a year or less—and permit applications cannot even be filed until engineer drawings are actually in hand, perhaps six months into the process—a six-month wait for permit approvals can be quite costly. 3M, as part of the EMS agreement, will do additional monitoring beyond what is already required, and will also accept an emissions cap.¹²⁴

In 1999, the planned state air pollution permit-trading program will already impose caps on all companies, but 3M agreed to accept an even lower cap so they could change elements of their operation without the Illinois EPA’s approval as long as they stay beneath their maximum permitted emissions. They still have to let the Illinois EPA know, in writing, of any process change, two weeks ahead of time, but it is expected that any changes will be rubber-stamped. To avoid having any problems with the U.S. EPA, 3M’s EMS agreement does not address any issues of federal laws or federal permitting. For instance—and this is a big barrier, which substantially reduces the value of the agreement relative to what it *could* have been—3M must still comply with all federal air-permit requirements, or else they may be prosecuted by the U.S. EPA.¹²⁵

¹²⁰ *Program Guidance Document for Participation in Pilot Program for EMS Agreements*, p. 6.

¹²¹ *Ibid.*

¹²² Kanerva interview.

¹²³ Personal communication, Tom Zosel, 3M, December 16, 1997.

¹²⁴ *Ibid.*

¹²⁵ *Ibid.*

The Illinois EPA hopes to do a few dozen of these sorts of projects over the next five years and use the experience with EMS agreements to help it develop its next generation of regulations. This contrasts sharply to the federal approach, which Kanerva describes as a “one-size-fits-all, cookie-cutter, do-it-our-way-or-take-the-highway type of thing.” As the Illinois EPA’s Bharat Mathur puts it,

One of the reasons XL didn’t work is because, typically, when we do something new, there is this great desire to put it into regulation, rules, and guidance. And that’s where it gets sticky, because you cannot accommodate all new, emerging situations into rules and guidance right off the bat. And that’s where I think most of them [potential XL projects] die.¹²⁶

C. The Delegation Battle: In Search of Equivalence in California

In 1990, with the passage of the Clean Air Act Amendments, federal air toxics rules were developed and imposed on the states. California has had air toxics requirements in place since the early 1980s. “We have put a lot of years and a lot of effort into building a toxics control program in California,” says Mike Kenny, executive officer of the Air Resources Board at Cal/EPA.¹²⁷ California officials believe that California’s existing regulations, though they look different and were developed differently, achieve substantially the same results as the federal rules. California is currently trying to establish equivalence between the federal rules and its own rules.

In theory, states can submit their alternative programs to the U.S. EPA, which can determine that the state program is equivalent to federal requirements. But U.S. EPA policies are embodied in rules only, while the California policy, as it is implemented today, consists of not only rules, but an entire infrastructure that includes compliance assistance and site-specific restrictions in individual permits. The debate between Cal/EPA and U.S. EPA officials over equivalence has continued for over four years, but without resolution, largely because the federal government is comparing its regulations against state regulations and finding the state rules lacking, instead of comparing its regulations against the entire existing formal and informal state structure.¹²⁸

For instance, California officials say, Cal/EPA’s “hot spots” program, which focuses on toxics-emitting facilities that may produce health effects on the residents of the surrounding area, has already taken millions of dollars to set up and achieves substantially the same effect as the U.S. EPA’s residual-risk rules. Similarly, many of the controls envisioned under federal MACT (maximum achievable control technology) standards are similar to existing state best-available-technology controls. Ironically, some of the federal technology standards mandate technology that is inferior to some technology that is already in use in California. Chrome platers in California, for instance, use Merlin hoods and high-efficiency particulate filters, both more effective than the technologies identified in the federal MACT standard. California officials have to submit a separate waiver request for both of those types of control technologies, even though they are more effective than federally mandated technology.¹²⁹

¹²⁶ Personal interview, Bharat Mathur, Chief, Bureau of Air, Illinois EPA, September 11, 1997.

¹²⁷ Personal interview, Mike Kenny, Executive Officer, Air Resources Board, Cal/EPA, September 10, 1997. Subsequent quotes from Kenny are from the interview unless otherwise indicated.

¹²⁸ Personal interview, Bob Fletcher, Chief, Emissions Assessment Branch, Air Resources Board, Cal/EPA, September 10, 1997.

¹²⁹ *Ibid.*

Some volatile organic compounds (VOCs) are also considered toxics, so there is overlap between state regulations developed as part of VOC-limitation plans and federal toxics requirements. Other differences are more philosophical—the federal program, for instance, requires more documentation as an aid to enforcement, while the state program relies more heavily on compliance assistance instead of punishment. Kenny explains:

The key focus ought to be whether or not the emission reductions are being achieved that you want to achieve . . . and the secondary consideration should be, then, how it is being achieved. And if, in fact, the primary consideration of achieving the emission reduction is successfully being implemented, then the federal government should not really be concerned about the fact that we might be doing it in a different fashion than they would be specifically requiring of other states.

In 1997, U.S. EPA (Region IX) officials launched a “test-run” inspection of selected California facilities—seven facilities in five source categories—establishing that 90 percent of California’s rules are equivalent to federal air toxics program requirements (if modified slightly). If U.S. EPA objections remain after this months-long process, the state fears, prospects for obtaining equivalency appear bleak. Whether the state will agree to any changes proposed by the U.S. EPA depends on whether state officials believe that stakeholders will agree to the modified regulations. The U.S. EPA may be willing to sign on to the idea that permit conditions could contribute to establishing equivalency.¹³⁰

California officials see the air toxics debate as a debate over whether a decentralized or a centralized program achieves better environmental results. The U.S. EPA program is much more centralized and technology-mandating than the California program, and the federal regulations are substantially more complicated.¹³¹ For example, if federal standards are adopted to substitute for state standards, one chrome-plating rule will go from five pages to sixty pages. The California program is not a completely performance-based program, but it is more so than the federal program, which sets forth not only detailed technology requirements, but also detailed, uniform reporting requirements that California officials have tended to set on the permit level, so that they can tailor reporting requirements to what they perceive to be the specific conditions at each company.¹³²

Mike Kenny summarizes Cal/EPA’s attitude toward the air toxics rules:

We do like having [a U.S.] EPA-based level playing field. . . . What we really want them to do is set those performance standards and then sort of step back and look at California . . . and if we don’t make it, they really ought to come in and simply say, “California is deficient, here’s why they’re deficient, here’s where they are deficient and . . . if they don’t clean up their act within a specified period of time, here’s what we are going to ensure that in fact those performance standards are met.” We think that’s a better role for [the U.S.] EPA than to have them come in and simply say, “Here’s the requirement. Here’s how you’re going to implement the requirement. Here’s how you’re going to report on the requirement. Here’s how you’re going to monitor the requirement. Here’s how you’re going to basically provide us with certainty that in fact you are doing the following thing, and no deviations from that scenario will be acceptable.” That to us is essentially

¹³⁰ “EPA Scrutiny on Test Facilities Places Doubt on Title III Equivalency,” *Inside Cal/EPA*, vol. 8, no. 40 (October 3, 1997), pp. 1, 10.

¹³¹ Kenny interview.

¹³² Fletcher interview.

a strongly centralized approach which fails to take into account innovations, creativity, and maybe some special expertise that we might have in California because we have been doing this for a lot longer than [the U.S.] EPA has been doing it.

The Title III controversy is not the first debate between California and the federal government over how much flexibility the state should be granted. In 1994–95, Cal/EPA and the U.S. EPA fought over the California Smog Check program, which the federal government believed should be centralized, but which California has been running through individual service stations, because the state believed that using the massive, existing infrastructure of service stations was necessary to achieve maximum air emission reductions. Ultimately, after much negotiation, the state and the federal government agreed to adopt a hybrid program, with some of the worst polluters going to a centralized system and everyone else staying with the same decentralized system.¹³³

The same sort of debate took place a few years ago, with Clean Air Act Title V stationary-source operating permits, which were not mandated at the federal level until 1990, but which California had already had for 25 years. Federal operating permits are substantially more complicated than state permits, and some of the complexity is only being phased in now. Unlike the air toxics program, the U.S. EPA stationary-source operating-permit program does not even have a mechanism by which the state can establish equivalence.

Portions of this debate continue to this day; Cal/EPA officials believe that individual circumstances at some facilities justify granting variances from these operating permits, but Title V does not recognize variances. This is a substantial barrier to flexibility. A facility that has an operating permit under state and federal law, and which needs a variance, can go to a state hearing board at the local level and be granted a variance, which gives the facility immunity from state prosecution. But because it is operating outside the bounds of its federal permit, it can still be prosecuted by the federal government. Companies with stationary-source operating permits seek state variances at their own risk, though there is an unspoken agreement between Cal/EPA and the U.S. EPA that as long as the variances are temporary, the U.S. EPA will not bring an enforcement action. There is no certainty to the process, which is unacceptable to the state and to the regulated community. Negotiations continue.¹³⁴

D. Pursuing State/Federal Cooperation

Are these isolated instances of federal inflexibility?¹³⁵ On October 31, 1996, U.S. EPA Administrator Carol Browner and Deputy Administrator Fred Hansen suggested that the U.S. EPA might look favorably on state environmental innovations.¹³⁶ The U.S. EPA–state plan called the states “a natural laboratory for testing new ideas” and pledged that the U.S. EPA would quickly approve state regulatory innovations. Over three months of meetings between federal officials and members of the Environmental Council of the States, a

¹³³ Kenny interview.

¹³⁴ *Ibid.* See also “Industry Eyes Congressional Help in Fight Against EPA Air Programs,” *Inside Cal/EPA*, October 3, 1997, p. 11.

¹³⁵ See *Building Partnerships for Accountable Devolution*, pp. 13–16, discussing recurrent problems of inflexibility.

¹³⁶ Memorandum from Fred Hansen to Reinvention Ombudspersons, re: “Recall of draft proposed EPA/State agreement concerning process for dealing with state requests for speedy EPA responses to new approaches they wish to pursue,” February 24, 1997 (hereinafter “Fred Hansen memo”).

proposal was drafted and issued in draft form on February 14, 1997. The draft stated that the states and the feds agreed “on the need to experiment with new approaches to improve our nation’s environment.”¹³⁷

In late February, however, Fred Hansen issued a memo withdrawing the plan. He wrote:

*I have just read the document Unfortunately, it does not reflect the direction The Administrator and I gave to the states and [the U.S.] EPA at our [October] meeting. . . . At that meeting we had in mind the development of a process by which states could raise to [the U.S.] EPA minor, and I stress minor, changes to interpretations, clarifications and issues of consistency in programs we jointly administer.*¹³⁸

The memo explained that any regulatory flexibility, as with the XL program, was contingent on “superior environmental performance,” and the more flexibility sought, the more superior the environmental performance had to be.

Six “shocked” state environmental directors—Harold Reheis of Georgia, Robert Shin of New Jersey, Robert Varney of New Hampshire, Mary Gade of Illinois, Peder Larson of Minnesota, and Randall Mathis of Arkansas—wrote that “the draft agreement [had] fallen prey to the very problem the states hoped it would solve,” had “damaged” the “trust” between the states and the U.S. EPA, and put in question the U.S. EPA’s “commitment to working in partnership with states to create a better environmental system for our citizens.”¹³⁹ The three main issues of disagreement between the states and the federal government were:

- whether projects that only offered efficiency gains, not substantial environmental improvements, would be considered under the state-federal agreement (the states believed they should, the federal government believed they shouldn’t);
- whether increased flexibility on these projects would be proportional to the degree of superior environmental performance (the states believed it shouldn’t, the federal government believed it should); and
- whether the agreement would cover only minor projects or all types of innovations (the states believed it should cover the latter, the federal government believed the former).

In July, negotiations resumed. By September, the time of the Environmental Council of the States (ECOS) meeting in Vermont, a draft agreement was presented, and the membership of ECOS passed a resolution supporting the language of the agreement. The agreement was printed in the *Federal Register* to solicit public comment on October 29, 1997.¹⁴⁰ The agreement divides innovative proposals into three categories:

- straightforward, transparent proposals with clear advantages and few obstacles, which are technically achievable and carry low environmental risk;
- experimental proposals that have a greater uncertainty of environmental outcome, which require more attention to design, implementation, and evaluation, and which may involve some risk of failure; and

¹³⁷ John H. Cushman Jr., “E.P.A. Withdraws Plan to Empower States,” *New York Times*, March 2, 1997.

¹³⁸ Fred Hansen memo (my emphasis).

¹³⁹ Letter from Harold Reheis, Robert Shin, Robert Varney, Mary Gade, Peder Larson, and Randall Mathis, to Carol Browner and Fred Hansen, February 26, 1997.

¹⁴⁰ U.S. Environmental Protection Agency, *Joint EPA/State Agreement to Pursue Regulatory Innovation*, 62(209) Fed. Reg. 56,182–56,189 (October 29, 1997).

- strategic proposals involving broad-based, new approaches (for instance, statutory changes) and require policy discussions to further develop concepts.¹⁴¹

The further down the list a proposal is, the more involved the negotiations have to be before a proposal can be approved. But the agreement defines a process for approving innovations, which didn't exist before, and sets forth an appeals process for resolving disputes over whether a project should be approved. The concept of substantial improvements in environmental performance has been shed, in favor of the potentially more flexible, but also murkier, concept of "appropriate gains in environmental performance."¹⁴² Also, "ecosystem sustainability" has been added to "increased environmental protection" as a possible criterion by which to judge a proposal,¹⁴³ so that if a company wants to try an innovation that only offers efficiency gains and no pollution-reduction, it might throw in unrelated ecosystem benefits, such as wetland restoration.

The agreement clearly grants that any innovation, not just a minor one, can be part of this process (though the criteria are more stringent for the more major ones), so the U.S. EPA has moved away from its original position. On the other hand, it does still involve some amount of superior environmental performance as a condition for some projects (though the degree of superiority has been considerably watered down), so the states have moved from their original position too. It remains to be seen whether meaningful innovations will be able to proceed under this agreement; ultimately, how murky terms like "appropriate" will be interpreted is something that can only be known through observation. If the agreement does work, it will be a good step, but one achieved after months of contentiousness and bitterness.

E. Conclusions and Recommendations

To more effectively further flexibility in environmental management:

- States, and the federal government, should move as far as possible from one-size-fits-all approaches to flexible environmental management systems. Particular methods or technologies should not be mandated; instead, companies should be able to achieve environmental results in whatever way makes the most economic sense to them. Such an approach will produce the same or better environmental results at lower cost.¹⁴⁴
- Especially in industries where companies are small, unsophisticated in their understanding of environmental law, and limited in their ability to comply with complex regulations, targeted approaches that give companies incentives to make environmental improvements are likely to be more effective than forcing such improvements on all companies uniformly.
- Governments should establish facility-wide, or even community-wide, ambient standards and permitting that would allow for emission trading among facilities, among different emission sources within a single plant, and even possibly among different pollution sources. Legislation will likely be needed for such programs to achieve their full potential. Where applicable, permits could take the form of contracts or covenants rather than the more traditional regulatory permits.¹⁴⁵

¹⁴¹ *Joint EPA/State Agreement to Pursue Regulatory Innovation*, § IV.B.2.b.

¹⁴² *Joint EPA/State Agreement to Pursue Regulatory Innovation*, § III.B.3.

¹⁴³ *Ibid.*

¹⁴⁴ See *Reinventing the Vehicle for Environmental Management; Building Partnerships for Accountable Devolution*.

¹⁴⁵ See *Integrating Environmental Policy*.

- Mere cost-effectiveness should not be a bar to regulatory flexibility. Companies that opt for flexible approaches should commit themselves to verifiable and enforceable performance standards, but the level of flexibility granted should not depend on the degree of superior environmental performance.
- States should adopt environmental management system programs more broadly, and the federal government should craft a long-term EMS program—not a limited, pilot program—that does not suffer from the same inflexibility that has plagued the Project XL to date.
- The federal government should be more flexible in determining whether existing state regulatory plans, which the state may already have invested heavily in, are equivalent to federally mandated programs (as, for instance, with Clean Air Act Title III (air toxics) programs). The federal government should move quickly to approve the draft agreement presented by the membership of ECOS regarding regulatory flexibility.
- The federal government should generally defer to state decisions regarding how to implement more flexible environmental management systems. Congress may need to clarify state and federal roles, clearly devolving decision authority to states and reducing the U.S. EPA's authority to approve state program details. Over time, the U.S. EPA's role should move toward evaluating final outcomes and ensuring that ambient standards are achieved.

Part 4

Incentives for Private Stewardship

Often it is institutions, not perverse people, that are the genesis of environmental problems. Policies that more closely link the choices that individuals make with outcomes for those choices strengthen incentives for stewardship and efficiency. Paying to use resources, for example, establishes incentives to conserve those resources.

This linkage applies to public decisions as well. Current policies that require individuals or firms to set aside land for wildlife, wilderness, and wetlands protection in effect ask these individuals or firms to provide a public benefit at no cost to the public. Compensating private individuals or firms, in those instances in which they are asked to provide a public benefit, is not merely a matter of fairness. It also gives property owners a financial self-interest in protecting habitat and preserving endangered species. And it gives regulators an incentive to prioritize their efforts.¹⁴⁶

This section will give a brief overview of certain state programs aimed at increasing incentives for responsible private stewardship through private-property-based policies. More such programs are briefly listed in Table 8.

Arkansas	State income tax credits to reduce groundwater use, and create or restore wetlands
Florida	Takings legislation
Georgia	Preservation 2000
Illinois	Air emissions credit trading program
Indiana	Heritage Trust program
Maine	3PC (Third Party Compliance) Startrack; Land for Maine's Future Program
Maryland	Corporate Partnership Program
Massachusetts	Environmental Results Program; Northeast NOx Emissions Trading Plan
Missouri	Community Buyout Program; Expansion of Special Area Land Treatment program to address agricultural non-point source pollution control
Montana	Privatization of Water Conservation Projects
Nebraska	Environmental Trust Fund
New Jersey	Open Market Emissions Trading Regulation Development
New York	Conservation Easements; New York River Otter Project, Inc.
Puerto Rico	Privatization of Beach Cleanup
Texas	Air emissions credit trading program; Takings legislation
Virgin Islands	Energy Efficiency Pay\$ Rebate Program
Washington	Outdoor Burning Voucher Trading

Source: NEPI and ECOS surveys and other sources.

¹⁴⁶ Scarlett, *Environmentalism for a Dynamic World*, pp. 4–5.

Laws that provide for direct compensation of property owners, as in Florida and Texas, are the most visible of such policies. But stewardship can also be promoted through private-sector management of programs that would otherwise be public and through privatization of public resources, as in the case of the New York River Otter Project and the recent privatization of water conservation projects in Montana. Several states have also harnessed the private sector to encourage cleanups; Massachusetts, Connecticut, and Ohio (and, soon, California) have enacted policies to license private-sector professionals authorized to oversee and sign off on brownfield cleanups.

A. Compensation for Regulatory Takings in Florida and Texas

When the government “takes” private property for a public purpose, the U.S. Constitution, and the constitutions of many states, require that the government compensate the landowner for the burden he is made to bear. In the environmental arena, uncompensated takings have sometimes had adverse effects on the environment. Landowners who practice responsible forestry on their lands, for instance, may end up creating a habitat friendly to wildlife, including endangered species; if this occurs, they may lose their development rights entirely. To avoid the taking of their property, some landowners have stopped maintaining wildlife-friendly habitat altogether, sometimes clearcutting their forests because they cannot afford to attract an endangered woodpecker or some other species.¹⁴⁷ The same incentives are in place with wetlands; landowners who maintain wetlands on their property may be punished for their environmentally friendly acts by being unable to expand their homes or businesses; even when the wetland existed previously and requires no maintenance, landowners have an incentive to apply for a permit to develop their wetland now, just in case a state or federal agency might decide in the future that the wetland must be protected. In 1995, responding to pressure from property owners to more equitably distribute the burdens of environmental and other regulation, Florida passed the Bert J. Harris, Jr., Private Property Rights Protection Act¹⁴⁸ and the Florida Land Use and Environmental Dispute Resolution Act.¹⁴⁹

The Florida law has two parts—one which establishes a right to compensation, and one which establishes a dispute-resolution mechanism. The right to compensation only applies prospectively, that is, to new legislation that further burdens individual property rights. Old legislation, even continuing enforcement of old legislation, is not covered, so the regulatory structure was allowed to stay in its current state. The dispute-resolution mechanism applies to all laws, new and old. If a landowner requests relief under the dispute-resolution section, the agency and the individual must agree to the selection of a “special master”—essentially, a mediator—who hears the cases of both sides and tries to come to a mediated settlement or, if a settlement is impossible, hands down a decision explaining whether or not he thinks the regulations are unreasonable or unfairly burden the owner’s use of his property. All federal programs, however, whether run by the U.S. EPA or by the state through delegation from the U.S. EPA, are exempt from the law, so much environmental policy is unaffected.

According to the compensation section of the act, if a government regulation “inordinately” burdens private property, the owner can submit a claim, with an appraisal that shows a loss in fair market value. The government must then make a settlement offer to the owner (which may be merely a restatement of the government’s previous decision) within 180 days. If the landowner does not accept the government’s offer,

¹⁴⁷ See Volokh and Marzulla, *Environmental Enforcement*, p. 9. See also Richard L. Stroup, *The Endangered Species Act: Making Innocent Species the Enemy*, PERC Policy Series, Issue Number PS-3, April 1995, pp. 4–6.

¹⁴⁸ Florida Stat. § 70.001 (1995).

¹⁴⁹ Florida Stat. § 70.51 (1995).

he may pursue a claim for compensation in state court and may be awarded damages under the act. If the judge finds that the regulation imposes an inordinate burden on the owner's property, he can impanel a jury to determine the proper amount of compensation. The court can also award attorney's fees and costs to the winning side.¹⁵⁰

As of September 1997, no monetary awards had been awarded under the act, but the act has had some effect. The law was not simply aimed at environmental statutes, and many of the appeals have pertained to local land-use ordinances. In the city of Crestview, for instance, a local zoning ordinance eliminated the "construction and debris" use from some of its zoning classifications. At least one business, finding its livelihood in violation of the new zoning regulations, went bankrupt as a result, and its owner was reportedly preparing to sue the city for the loss of livelihood he suffered as a result of the zoning changes. In Dade County, a claim for \$410,000 was filed because a piece of property was downzoned. In the city of Gainesville, an anti-nudity ordinance had to make a ten-year exception for one establishment to avoid a lawsuit from a property owner who already had a license for nudity. In the city of Holmes Beach, says an attorney for the Florida League of Cities, who opposes the act, "citizens always raise the property rights act[,] making the Commission hesitant to act." A failed claim in Miami Beach sought compensation because a piece of property was designated a historic structure.¹⁵¹

Many of the claims filed under the act have been denied; the act has not opened the floodgates of litigation, as some had predicted. Instead, it has made municipalities more hesitant to regulate, and more circumspect generally to avoid violating property rights, which was precisely the goal for the act.

Takings legislation had already been proposed for years in Florida, and at the time the law was passed, there was a threatened attempt to amend the Florida Constitution to guarantee takings compensation. The Harris Act was presented to opponents of takings legislation in part as an effort to forestall a constitutional amendment or stronger legislation that would have made regulation very difficult.

Texas has also adopted a regulatory takings law,¹⁵² which also requires that certain state government entities prepare takings impact assessments. While it is one of the strongest takings laws enacted, says Jace Houston, attorney at the Waste Policy and Regulations Division at the TNRCC, "this bill is so chock full of holes that it's not as strong as it sounds."¹⁵³ The Texas law also has a number of exceptions—federal laws and state enforcement of federally delegated laws are exempt, as are state and local actions intended to protect against grave and immediate threats to life and property, actions taken by the Public Utility Commission, actions related to oil and gas rights, and other categories of government actions. One of the largest exemptions is for actions taken in response to a real and substantial threat to public health and safety, which are designed to significantly advance the health and safety purpose, and which do not impose a greater burden than is necessary to achieve that health and safety purpose. Unlike the Florida law, the Texas law not only applies against new laws, but also against continuing enforcement of preexisting laws. Also unlike the Florida law, the Texas law sets a cutoff threshold for takings claims of reductions in fair market value of 25 percent.¹⁵⁴

¹⁵⁰ Personal communication, Jack Chisolm, Deputy General Counsel, Florida DEP, October 1997.

¹⁵¹ Testimony of Jane Cameron Hayman, Deputy General Counsel of the Florida League of Cities, before the U.S. House of Representatives, Judiciary Committee, Subcommittee on the Constitution, regarding Property Rights, September 23, 1997.

¹⁵² Texas Gov't Code, chapter 2007, "The Private Real Property Rights Preservation Act."

¹⁵³ Personal interview, Jace Houston, Attorney, Waste Policy and Regulations Division, TNRCC, August 27, 1997. Subsequent quotes from Houston are from the interview unless otherwise indicated.

¹⁵⁴ Houston interview.

No successful claims have been filed under the Texas law either. Partly, this is because of the exemptions; says Houston, “it’s almost like every time we made a deal we were pulling a tooth out, and by the end of the deal we didn’t have very many teeth left.” It is also partly because most of the environmental takings that have fueled the property-rights movement have been on the federal level, especially with regard to endangered species and wetlands. But Houston still believes that the law was an important symbolic statement (“There’s enough to nibble, though.”), establishing that the state believes in property rights, but that it also makes agencies (including the TNRCC) think twice before taking someone’s property, which is all to the good, according to Houston.

B. Welcome Back, Otter

Since the 19th and early 20th century, otters have been absent from central and western New York State because of hunting, human settlement, and water pollution. In the 1980s, biologists from the New York State Department of Conservation (DEC) found that due to reforestation and reduced water pollution, the area’s environmental quality had greatly improved and that otters could now be reintroduced.¹⁵⁵ In 1994, the DEC held hearings, at which environmental and sportsmen’s groups were invited to comment on the idea of reintroducing otters into the area. While most participants favored the idea, tight budgets at the DEC prevented the state government from raising the estimated \$300,000 required to transplant the proposed 180 to 270 otters from the Adirondacks and Catskills; any otter funds would have to be transferred from other wildlife programs.¹⁵⁶

The state solved the problem by privatizing the otter program. The New York River Otter Project (ROP), a nonprofit corporation, was born. Its sponsors include Rochester Gas and Electric Corp., environmental, conservation, and sportsmen’s societies, a zoo, and a law firm. DEC Commissioner Michael Zagata signed a Memorandum of Understanding with ROP in July 1995, and by September 1995 nine sites had been identified and trapping had begun. The DEC only provides technical support, otter housing, and trapper training.¹⁵⁷

Otters are captured by specially trained and licensed trappers using foothold traps, which, says trapper Chris Peterson, are “one of the most efficient ways of capturing animals humanely,” despite the objections of animal rights groups.¹⁵⁸ Doctors keep the otters at Cornell University’s College of Veterinary Medicine for about 10 to 14 days to make sure the animals are healthy before their release. The first two otters were released in Fall 1995 in the Northern Montezuma Wetlands Complex, five miles north of the Montezuma National Refuge; by the end of 1995, 21 otters had been released at three locations in the complex. A few animals are equipped with tiny radio transmitters underneath their skin so biologists can track their progress. The project hopes to completely reintroduce this member of the weasel family within 10 years. While otters had been slowly migrating west from the Catskills and Adirondacks, ROP plans to accelerate the process by several decades—giving nature “a gentle nudge,” according to Kevin Armstrong of the Professional Bowhunters Society, a ROP supporter.¹⁵⁹

¹⁵⁵ Dennis J. Money, “Welcome Back, Otter,” *New York State Conservationist*, August 1996, p. 18.

¹⁵⁶ See Alexander Volokh, “‘Welcome Back, Otter’: Private-Sector Species Preservation,” *Privatization Watch*, October 1997, p. 1.

¹⁵⁷ Money, “Welcome Back, Otter.”

¹⁵⁸ Chris Peterson, “Sportsmen celebrate river otters’ release,” *Evening Tribune*, October 6, 1995, p. 14.

¹⁵⁹ Kevin Armstrong, “The New York State River Otter Restoration Project,” *Full Draw*, Summer 1996, p. 14.

The nine reintroduction sites in central and western New York are on federal, state, and private lands. No private landowner is compelled to accept any otters on his land, but in fact most landowners welcome the otters.¹⁶⁰

ROP staff is entirely volunteer. ROP is supported by contributions from corporations, individuals, grants, and merchandise sales—key chains, bumper stickers, tote bags, caps, photos, patches, shirts, pants, and shorts with pictures of otters. Some companies are donating goods and services, from bumper stickers to otter medicines, while one winery is rebating part of the proceeds from the sale of its wine, called The Homecoming, to the project. Part of \$300 raised at a maggot race organized by the conservation department of Finger Lakes Community College also went to ROP.¹⁶¹

Privatizing wildlife conservation through organizations like ROP may signal a trend in a time of scarce government funds. “We didn’t have a lot of money to do wildlife work before—and now we’ve got less,” says DEC biologist Bruce Penrod.¹⁶² “Partnerships are the way business will be conducted in the future, especially in the wildlife arena,” explains Dennis Money, president of ROP and a senior environmental analyst at Rochester Gas & Electric.¹⁶³

With personnel resources strained and budgets being reduced, wildlife agencies across the country need to turn to private enterprise to help pick up the slack. The really positive thing about this is that private enterprise generally wants to help. They receive a great deal of positive public relations at a relatively low cost while enhancing the environment. Everyone wins.¹⁶⁴

C. Montana Water Conservation Project Privatization: No More Ditches At Last Chance Gulch

The Montana Department of Natural Resources and Conservation (DNRC) is negotiating the privatization of the Petrolia water project in Petroleum County, as part of its ongoing “water conservation project” privatization plan. Since 1934, when the State Water Conservation Board was created to stimulate agriculture and employ the unemployed, the state had built over 100 projects, 33 of which were still owned by the DNRC by the early 1990s (the rest had been transferred to local water users or abandoned). While the 12 projects, and the agency that spawned them, bore the name “water conservation,” this is something of a misnomer; these projects directly diverted water from rivers and streams for irrigation purposes, without any storage facilities, reservoirs, or dams.¹⁶⁵

Faced with popular pressure to reduce government (this is in Montana, where the DNRC’s street address is on “Last Chance Gulch”), the Montana legislature passed HB 814 in April 1991¹⁶⁶ and SB 97 in February 1993,¹⁶⁷ directing the DNRC to try to transfer 12 water projects to local water users associations (WUAs). As

¹⁶⁰ Personal communication, Dennis Money, July 1997.

¹⁶¹ “Squirm. Wiggle. Ooze. Speed is a relative thing.” John Hatcher, “Off to the races,” *Canandaigua Messenger*, March 1, 1996, p. 3A.

¹⁶² Martin Toombs, “Welcome back, otters,” *Geneva Finger Lakes Times*, October 6, 1995, p. 1.

¹⁶³ Personal correspondence, Dennis Money, July 28, 1997.

¹⁶⁴ *Ibid.*

¹⁶⁵ See Alexander Volokh, “Water-Users Take Control of Montana Conservation Projects,” *Privatization Watch*, September 1997, p. 1.

¹⁶⁶ Mont. Code Ann. §§ 85–1–210 to –211.

¹⁶⁷ Mont. Code Ann. § 85–6–109 sub 5.

the state put it, “the original purpose of the state’s involvement in many of these water-conservation projects had been fulfilled,” and “government oversight was no longer needed.”¹⁶⁸

The state’s primary interest was to divest itself of the water projects while recouping its own costs.¹⁶⁹ While some of the older projects had already paid off their original development costs, others still owed the state money; the Paradise Valley canal, for instance, owed about \$100,000. The state determined that the market value of the projects and the associated water rights was quite low—since no future owner could change the use of the property or the water without the WUAs’ consent. The state therefore decided to transfer the projects to the water users in exchange for full payment of the projects’ debts. If the water users didn’t want to take over the projects, the state would charge them for its administrative expenses. (In the case of Paradise Valley, these would have been \$4000–\$5000 per year, which would have almost doubled the WUA’s total payments to the state. Larry Jordan, president of the Paradise Valley WUA, believes this vastly overestimates the department’s actual administrative costs.¹⁷⁰) Some WUAs were at first reluctant to take over the projects. Larry Jordan thinks the project was sprung on the water users without adequate notice or education.¹⁷¹ Lorrie Peterson, president of the Livingston ditch WUA, thinks it was “blackmail” for the state to threaten to charge administrative expenses.¹⁷² But all 12 projects were ultimately transferred by the legislative deadline of June 30, 1995.

Privatization has made little difference in the day-to-day running of most projects. The Paradise Valley canal and the Lewistown ditch, for instance, had always been run by the WUAs with minimal DNRC oversight. Still, the water users are happy to own their own projects. Lawrence Jenni, past president of the Lewistown ditch WUA, explains that “the best countries are where the farmers own their own farms, and the people own their own homes, and in this case, we ended up owning our own ditch.”¹⁷³ Larry Jordan says “it’s always nice to have the control closer to home,” and believes that owning the rights to one’s water can be an important asset in a time of rising water costs.¹⁷⁴

In some cases, privatization has had concrete results. Lorrie Peterson was frustrated by the DNRC’s refusal to approve repairs and maintenance, even though the money for the repairs had always come from assessments on the water users themselves. Since the privatization, the Livingston ditch WUA has spent over \$100,000 on the ditch. It’s now in “twice the shape that it was before.”¹⁷⁵ In Paradise Valley, the diversion dam broke after privatization, and the association had to raise \$300,000 for repairs from private sources. Ultimately, the association secured a lower-interest loan from the legislature, but the water users have decided to increase their payments to the association to build up an emergency reserve fund.¹⁷⁶

Unlike the previously discussed projects, the Petrolia project isn’t a single-use project that only benefits farmers and ranchers. It has a reservoir, which provides recreational benefits to campers, picnickers, fishers, hunters, and water-skiers. The transfer of the project to the WUA is contingent on the WUA’s maintenance of the current level of free recreational opportunities. Jack Kiehl, the president of the Petrolia WUA, is a

¹⁶⁸ Montana DNRC, *Summary: Water Project Transfer, Transfer Price Methodology*.

¹⁶⁹ *Ibid.*

¹⁷⁰ Personal communication, Larry Jordan, July 1997.

¹⁷¹ *Ibid.*

¹⁷² Personal communication, Lorrie Peterson, July 1997.

¹⁷³ Personal communication, Lawrence Jenni, July 1997.

¹⁷⁴ Personal communication, Larry Jordan, July 1997.

¹⁷⁵ Personal communication, Lorrie Peterson, July 1997.

¹⁷⁶ Personal communication, Larry Jordan, July 1997.

rancher who grows forage crops for livestock. He is surprised at how little controversy the privatization has generated, though he didn't expect the "pickup-load of forms" and "red tape" associated with the property transfer—environmental impact assessments, adjudication of water rights, archaeological studies, and the like. After announcing the impending privatization, the state built a new spillway to replace an old one that the U.S. Army Corps of Engineers had declared unsafe. The water users will be paying that back in the future, just as they would have under state ownership; the costs will be added on to an existing loan, which the users are already repaying, for repairs made 25 years ago.¹⁷⁷

The Petrolia WUA doesn't mind maintaining free recreational amenities; it isn't interested in paying someone to collect money and keep nonpayers out, or in assuming the liability that charging for use of the recreational site may entail. The Fish, Wildlife and Parks Department (DFWP) will buy the five acres that make up the primary recreation site and will also lease (and later buy) an adjacent 25 acres, possibly to build a parking lot for RVs. The DFWP will provide a game warden on weekends and will pay for any improvements made to the recreational area. Some residents opposed the idea of the DFWP controlling any of the land, but they didn't attend the public meetings.¹⁷⁸ The state doesn't plan to privatize its projects that involve hydroelectric generation because they're "too large," according to Timothy Kuehn, project specialist with the DNRC. It is, however, considering privatizing some small water-supply systems.¹⁷⁹

D. Privatizing the Brownfield Cleanup Process

As explained earlier in this paper, the cleanup of brownfields, or contaminated industrial sites in need of redevelopment, is one of the most-challenging problems for state environmental agencies; often, because of the number of such sites, especially in historically industrial areas, there are simply too many brownfields for the state to handle itself. In Massachusetts, Connecticut, and Ohio, private hazardous waste specialists, licensed by the state, are now empowered to oversee cleanups at many categories of brownfields without state involvement, and a similar system is under way in California.

In 1983, the Massachusetts legislature enacted a state Superfund statute, called the Chapter 21E program,¹⁸⁰ which gave the state Department of Environmental Protection (DEP) authority and resources to clean up contaminated sites and spill emergencies. In 1986, Massachusetts voters overwhelmingly approved an initiative that bound the DEP to specific deadlines and quotas for finding, assessing, and cleaning up hazardous waste sites. But while the program, as amended by the 1986 initiative, ambitiously assumed that "every site is unique" and that the DEP could directly oversee the cleanup at all of these sites, the DEP never had the funding to take on such a task. By 1990, the brownfields backlog had become quite large; less than a fourth of the 4,200 identified Massachusetts hazardous waste sites were being actively worked on, and only a few cleanups were completed each year.¹⁸¹

Because there were no clear risk-based cleanup standards, the regulated community complained about both the state's "command-and-control" approach to cleanup at priority sites and its total lack of oversight or guidance at non-priority sites. The DEP formed a public/private 21E Study Committee to redesign the

¹⁷⁷ Personal communication, Jack Kiehl, July 1997.

¹⁷⁸ *Ibid.*

¹⁷⁹ Personal communication, Timothy Kuehn, Project Specialist, Montana DNRC.

¹⁸⁰ Oil and Hazardous Material Release Prevention and Response Act, Mass. Gen. L. ch. 21E.

¹⁸¹ Massachusetts DEP, *How the New 21E Program Is Measuring Up* (January 1996), p. 1.

program, which resulted in new legislation in 1992 and revised regulations in 1993.¹⁸² These new Massachusetts Contingency Plan (MCP) regulations,¹⁸³ which took effect on October 1, 1993, expanded the private sector's role for most sites, allowing the government to concentrate on those sites that posed the greatest risk to the environment and human health.

The 21E program clarified cleanup standards and introduced the concept of Licensed Site Professionals (LSPs). These environmental experts, licensed by an independent Board of Registration, can be hired by owners of contaminated sites to oversee cleanup. DEP involvement is limited to auditing 20 percent of LSP sites annually. Under the new system, most contaminated sites passed from direct agency supervision to LSP supervision. Under the DEP's numerical ranking system, the lowest level of site, Tier II, does not require any agency supervision. In the first two years of the program, LSPs ranked 803 sites according to the new ranking system; 710 sites (88.4 percent) qualified for Tier II, and the remaining 93 were in Tier I. (The DEP had originally estimated that only 70 percent of sites would be in Tier II.) Cleanup at Tier I sites requires a permit, but LSPs can still oversee cleanup with a permit at all sites except Tier IA sites, which must be directly overseen by the state. (In these first two years, only one site, out of all 93 Tier I sites, was in Tier IA.)¹⁸⁴

As of August 25, 1997, 477 LSPs were licensed.¹⁸⁵ LSPs generally need a college degree in a technical scientific field and eight years of professional experience, including at least five years of experience relevant to waste site cleanup.¹⁸⁶ It is still too early to definitively judge the Massachusetts LSP program, though the state plans on conducting its own study. But DEP sources do not believe LSP cleanup to be substandard—84 percent of audited sites had acceptable cleanups or easily correctable problems¹⁸⁷—and even if any cleanup is substandard, any quality reduction must be weighed against the fact that these sites were previously not being cleaned up at all. Within the first year, the number of Release Abatement Measures increased by 70 percent, and 56 percent of Tier IA sites were downgraded to Tier IB, requiring less DEP oversight. Most importantly, 810 Response Action Outcomes were submitted, indicating that no further cleanup was required. Many of these sites had been in the system for years without any cleanup.¹⁸⁸ “One significant unintended benefit” of the program has been “a better appreciation within the regulated community, in particular [among] the LSPs, of the problems and difficulties the department wrestled with in overseeing sites under the ‘Old’ MCP.”¹⁸⁹

Connecticut's brownfield-cleanup-expert program, the Licensed Environmental Professional (LEP) program, was largely modeled on Massachusetts's LSP program. The first LEP exam was administered in July 1997, though an interim list of LEPs was created in early 1996. The major difference between Massachusetts's and Connecticut's programs is that while in Massachusetts all identified contaminated sites had to be cleaned up according to state law, such a mandate did not exist in Connecticut. As a result, Connecticut has not had the same sorts of cleanup backlog problems that have plagued Massachusetts. It is also easier for the state to

¹⁸² Massachusetts DEP, *The “New” Massachusetts Contingency Plan: A Synopsis*, pp. 1–2.

¹⁸³ Mass. Regs. Code tit. 310, § 40.0000 (1993).

¹⁸⁴ *How the New 21E Program Is Measuring Up* (January 1996), p. 2.

¹⁸⁵ Personal communication, Massachusetts DEP.

¹⁸⁶ William J. Rizzo, Jr., “Licensed Site Professionals: The Chapter 21E Linchpin,” *Massachusetts Lawyers Weekly*, Environmental Section, August 16, 1993.

¹⁸⁷ *How the New 21E Program Is Measuring Up* (January 1996), p. 7.

¹⁸⁸ *The “New” Massachusetts Contingency Plan*, pp. 7–8.

¹⁸⁹ *Ibid.*, p. 7.

assign cleanups to LEPs because Connecticut does not have a complicated, mandatory, numerical-ranking system; the DEP can make its decision based on whatever information is at hand at the moment.¹⁹⁰

In Connecticut, under the Property Transfer Act, establishments that are transferred must, within five years, be cleaned up to meet state standards. The buyer and seller of the property agree at the time of the sale on who will certify that the site is adequately cleaned up. Before the LEP program was established, the Connecticut DEP had to sign off on all cleanups, so a backlog of transferred sites existed. Now, the DEP looks at a summary of the conditions at a site and decides whether to directly review and approve remedial actions at the site or to delegate the responsibility to an LEP. Generally, the DEP holds onto risky sites affecting significant environmental resources where there is a lot of public concern, but the DEP is not required to directly oversee any sites, so it can delegate as many sites to LEPs as its backlog demands. Since the program started, the DEP has assigned 65 percent of all property transfers (96 out of 147) to LEPs.

The Connecticut DEP also offers two voluntary remediation programs. Until the LEP program was established, the Property Transfer Act only applied to sites that were actually transferred. Now, under the “133x program,” the DEP can oversee and sign off on (or delegate such authority to an LEP) cleanups done at sites that *would* be subject to the Property Transfer Act *if* they were transferred. The DEP has delegated two-thirds of all 133x filings—14 out of 21—to LEPs since the program’s inception.

The other voluntary program, the “133y program,” does not require DEP involvement at all. If a site is in an area where the groundwater is rated GB—meaning that drinking-water purity standards are not required—then the owner can submit a notice to the DEP that he is voluntarily remediating the site and can hire an LEP to oversee the cleanup. The 133y program has less DEP involvement than the 133x program, but more people use the 133x program because they prefer to have DEP feedback. Only two sites have announced to the DEP that they have taken advantage of the 133y program, though the actual number may be greater because sites are not required to report to the DEP until the end of the process.

Like Massachusetts’s LSP program, the Connecticut LEP program is difficult to evaluate; any benefits from the program could also be attributed to the simultaneous introduction of clear, risk-based remediation standards to replace the earlier, vaguer, narrative standards used by the DEP in its cleanup oversight. The remediation standards are necessary if the approval of brownfield cleanups is to be delegated to the private sector but would have been beneficial even if the DEP had intended to continue approving all sites on its own.

The Ohio EPA has also established a “certified professionals” and “certified laboratories” program as part of its Voluntary Action Program (VAP) for brownfields cleanup, signed into law in June 1994. Certified professionals are allowed to issue “No Further Action Letters” for contaminated properties; upon a favorable review of a complete NFA, the Ohio EPA issues a covenant not to sue, which releases the site owner who undertook the voluntary action from liability for additional cleanup. This covenant can be transferred to future owners of the same property.¹⁹¹

In California, “registered environmental assessors” have been doing “Phase I” work for 11 years, which means essentially reviewing the history of the site—driving by the site, looking at it, researching old photographs and old records, and checking to see whether the site ever had any industrial use. These “Class

¹⁹⁰ Personal communication, Elsie Patton, Remediation Division, Bureau of Waste Management, Connecticut DEP.

¹⁹¹ Ohio EPA, *Fact Sheet: Voluntary Action Program*, Number 1, April 1996. See also Alexander Volokh, “Private Consultants Clean Up Brownfields: State Environmental Agencies Lighten Their Loads,” *Privatization Watch*, November 1997, p. 2.

I” registered environmental assessors also advise small businesses on waste reduction. In 1995, this program was extended when a privatization program, called the Private Site Managers program, was signed into law. In the late 1970s, the U.S. EPA gave the states a list of the places where the top 50 chemical-producing companies had disposed of their wastes from the end of World War II to 1978, and gave the states a grant to find and fix those places. While California staff was looking for those locations, they found other sites in need of remediation and ended up creating a database of about 27,000 sites. Once the sites were actually inspected, the list fell to 3,000 sites that needed to be cleaned up. The Department of Toxics could only handle a few of the worst sites. The registered environmental assessor “Class II” program was born in order to handle the rest of the sites, so that they could be remediated, used as collateral for loans, and redeveloped.¹⁹²

The registered environmental assessors can now prepare “no further action” letters once the cleanup has been completed, and these letters have to be reviewed by Cal/EPA. If the state does not question the letter within 60 days, the cleanup is deemed approved. As in Massachusetts, the state also has to audit 25 percent of the cleanups. Regulations have been under development since 1996. The state expects the Class II program to be operational by the end of 1997.¹⁹³

The California program was based in part on the Massachusetts program, and Beth Jines, Senior Hazardous Materials Specialist at Cal/EPA, describes one part of the Massachusetts program that may be especially valuable in overcoming psychological barriers to implementation:

It’s going to be difficult for California, for the folks at the regulatory agencies, to move from the mindset that they’re the only ones that can do this work. . . . In Massachusetts, they had the regulatory agency just step totally away from it, and they refused to help these private-site professionals. “You’re registered, you can do it—you do it.” And they wouldn’t even return phone calls from people that were asking, “How do you want me to do this?” They just totally broke away.

The Massachusetts DEP and, in retrospect, the Massachusetts LSPs, believed that this was the only way to really get the program off the ground.

E. Markets at Work

There are many other similar innovations using the private sector. Puerto Rico has cleaned up some of its dirtiest beaches—creating benefits for tourists and also improving the coastal ecosystem—by privatizing its beach cleanup functions. California, Illinois, and Texas have changed the way air pollution is regulated by setting up pollution-credit trading plans—in which the government mandates how much pollution should be reduced, and allows individuals to choose how best to reduce their own emissions by allowing emission credits to be bought and sold on the market. Companies that can reduce their emissions easily will do so and have a surplus of credits to sell; companies that cannot reduce their emissions cost-effectively will instead buy credits. Only the most cost-effective air-pollution reductions are made, and in the end, because each credit permits fewer emissions from year to year, overall air pollution is reduced. These have been much studied elsewhere; the consensus on permit-trading programs seems to be that they can achieve significant

¹⁹² Personal interview with Beth Jines, Senior Hazardous Materials Specialist, Private Site Management Program, Office of Environmental Health Hazard Assessment, Cal/EPA, September 10, 1997.

¹⁹³ *Ibid.*

emissions reductions at a relatively low cost, provided difficult political, analytical, and scientific questions—such as where to set one’s baselines, and how to set the emission caps—are resolved first.¹⁹⁴

One successful pollutant-trading program, for instance, has been implemented in Minnesota, where Rahr Malting Co., which produces malt for brewing, was allowed to satisfy its water-discharge requirements not only by reducing its own discharges but also by reducing the discharges of other sources upstream. The company’s pollutant-trading options were included in its water-discharge permit, which, among other things, also set acceptable trading ratios between different types of pollutants (a one-pound decrease of pollutant X is equivalent to an eight-pound decrease of pollutant Y) and defined procedures for estimating pollutant reductions. Rahr has also reduced its costs by working closely with the Coalition for a Clean Minnesota River to identify possible upstream sites where pollution could be reduced and to secure contractual emission limitations from upstream landowners. Rahr also established a nonprofit corporation called the Minnesota River Corporate Sponsorship Program to sponsor cleanup projects, including, but not limited to, the projects required to satisfy the terms of its permit. Difficulties in measuring upstream pollution, which is “non-point”—that is, pollution not easily identified as coming from a particular pipe, like agricultural runoff—and difficulties in figuring out proper equivalences between different types of pollutants were barriers to the implementation of the program, but these barriers were eventually overcome. The Rahr pollutant-trading program appears to be so successful that the company is scheduled to reduce pollutants in the river well ahead of its original plan.¹⁹⁵

Such private-sector and market-process-based state environmental innovations help create a climate in which people bear the consequences of their actions, and where people have incentives to be responsible stewards of their land and activities. In a time when governments and environmental analysts are beginning to find that government action and government ownership often do not produce optimal environmental results—because there is often not enough money, because there is a lack of focus, because the group that pays the costs is rarely the same group that reaps the benefits, and for a host of other reasons—states are looking more and more to market-based mechanisms to achieve environmental improvements.

F. Conclusions and Recommendations

To effectively harness the power of the market and the private sector to improve the environment:

- States, and the federal government, should adopt takings-compensation policies in situations where private landowners are required to provide public amenities; such provisions should not include compensation against regulations regarding pollution reduction or mitigation.
- States, and the federal government, should “privatize” the benefits of wildlife and habitat protection by encouraging the use of bounties, competitive contracts for private entities to provide habitat and wildlife protection, and other measures that allow private individuals, firms, ranchers, and forest owners to “capture value” by producing environmental goods.

¹⁹⁴ See, for instance, U.S. General Accounting Office, *Air Pollution: Overview and Issues on Emissions Allowance Trading Programs*, July 9, 1997 (GAO/T-RCED-97-183).

¹⁹⁵ Case study presented at the Environmental Regulatory Innovations Conference, sponsored by the Environmental Council of the States, Minneapolis, Minn., November 5–7, 1997.

- States, and the federal government, should seek private funding for programs when possible, and should pursue partnerships with the private sector. Existing programs should be scrutinized, and those that can be run by private or nonprofit organizations should be devolved to the private sector.
- States, and the federal government, should privatize or contract out to the private sector those activities, like brownfield cleanup oversight, which can be adequately performed by qualified professionals. Existing functions of environmental agencies should be examined to identify opportunities for private-sector involvement.

Part 5

Local Decisionmaking for Local Problems: Whither the States?

For three decades, many environmental decisions have been thrust into the federal arena.¹⁹⁶ But for some problems, impacts are strictly local and narrowly circumscribed. Other environmental problems may impose regional or even global impacts. The locus of impact of a problem should help determine where decisionmaking authority ought to reside.

If most knowledge relevant to understanding specific environmental problems is location-specific and dynamic, decisions about “how clean is clean” and what remedies to use should take place closest to where the problem occurs.¹⁹⁷ For air-emission problems, that might mean a local air basin. For decisions about cleaning up an industrial site, that might mean creating processes that foster bargaining between the site owner and landowners adjacent to the site. Decentralized bargaining approaches bring to bear relevant local information, both about community priorities and about identifying opportunities for environmental improvements. These approaches may also be less likely to drive decisions toward “zero risk” than centralized decision processes. In decentralized bargaining situations, citizens not only face the risks associated with a facility, but also directly enjoy the benefits—for example, in the form of lower cleanup costs and more job creation—associated with a particular remedy. Bargaining thus serves as a discovery process, revealing more accurate information about risks and benefits.¹⁹⁸

Table 9 gives some examples of local decisionmaking processes. This section will describe a few of these—one for developing clean air rules in Evansville, Indiana, and another for developing groundwater ordinances in southwest Utah—and will conclude with a discussion of how, given the importance of local information in resolving environmental problems, the U.S. EPA might fit into a new paradigm of environmental regulation.

Companies have begun to initiate their own local environmental programs. Many firms have, for example, established local committees or citizen groups in the vicinity of their plants to better identify local concerns and seek local input into environmental management programs at the plant. One example is Arco Chemical Company’s “Good Neighbor Policy.” Through their program, Arco is “committed to: communicating information about the safety and quality of their operations . . . ; providing opportunities for observing and

¹⁹⁶ See *Reinventing the Vehicle for Environmental Management*, pp. 27–29.

¹⁹⁷ See, generally, *How Clean is Clean: Dynamics of Devolution*.

¹⁹⁸ Scarlett, *Environmentalism for a Dynamic World*, pp. 3–4.

Alaska	Watershed Management
Arizona	Agreements with counties
Florida	Major Permit Program Decentralization
Idaho	Water Quality Initiative and Bull Trout Conservation Plan
Indiana	Community-Driven Ozone Plan
Massachusetts	Watershed Initiative
Oregon	Decentralization
South Carolina	Watershed Management
Utah	Three-way partnerships
Washington	Watershed Approach to Water Quality Management
Wisconsin	Grassroots environmental management by basin

Source: NEPI and ECOS surveys and other sources

verifying our operations...; and creating processes for resolving problems.”¹⁹⁹ Key to the program’s success is its emphasis on creating a means for a “widely representative group of community residents [to regularly meet] with plant management to discuss issues of concern to the community.”

A. Setting Local Priorities For Air Quality in Indiana

In 1990, the city of Evansville, in Vanderburgh County in southern Indiana, was designated a marginal nonattainment area for ozone. After collecting three years of clean air-quality data, the Indiana DEM put together a petition to redesignate the area to attainment and submitted the petition to the U.S. EPA. During the summer of 1994, while the U.S. EPA was considering the petition, an air-quality monitor picked up some exceedences of the ozone standard. The state believed that these exceedences weren’t representative of actual air quality in the Evansville area, since at various times over a several-week period, the monitor in question recorded ozone concentrations that were about 20 parts per billion higher than those recorded by the surrounding monitors—which didn’t make sense, according to the state’s analysis of weather patterns and other factors. Nonetheless, the U.S. EPA put the state’s redesignation petition on hold.

The state’s ultimate goal was to get Evansville redesignated to attainment, but with a maintenance plan which would essentially state that if certain high ozone levels were reached (levels that fell short, however, of nonattainment), then the community would have to consider some measures to reduce ozone. The state believed that having a maintenance plan in place would actually be more protective than keeping the city in nonattainment status and also believed that rather than imposing state rules on the area, it should allow the residents of the area to come up with control strategies that could be broadly supported in the area. After the maintenance plan was developed, the high ozone levels it contemplated were actually reached, and a citizens’ committee was born, composed of local industry representatives, environmentalists, and other interested parties. Even though the maintenance plan hadn’t been accepted by the U.S. EPA, the committee—dubbed the Action Committee for Ozone Reduction Now, or ACORN—came up with its own recommendations for limiting ozone.

Because Evansville had few ozone-control measures in place, there was ample room for ozone reduction. The citizens’ committee “was a pretty remarkable thing,” according to Janet McCabe of the Office of Air Management at the Indiana DEM:

¹⁹⁹ Arco Chemical Company’s Good Neighbor Policy (GNP), provided to the authors by Benjamin Schuster, Arco Chemical Company, 1996.

The idea was that they would take a look at possible measures and come up with some recommendations and try to get support from the local [county] government officials. . . . We wanted them to be able to do this. We provided them technical information about measures that had been used in other parts of the state, and cost and implementation issues and all that sort of thing, and there was a lot that we could tell them, because Evansville didn't have much in place.²⁰⁰

The committee met for about a year and came up in May 1996 with four recommendations—a requirement that auto body refinishing and paint-spraying operations use lower-pressure paint guns, implementation of vapor-recovery systems to be used when underground storage tanks are being filled by tanker trucks, introduction of a cleaner automotive fuel, and creation of a pollution-prevention and education task force. Contingency measures, to be implemented if these four measures did not yield enough ozone reduction, included setting up a vehicle inspection and maintenance program and further vapor-recovery systems for refueling operations.²⁰¹

The biggest barrier to the implementation of these recommendations, according to McCabe, was that the U.S. EPA had not finalized the redesignation of the area to attainment status. The redesignation was one of the main incentives for the group to come up with recommendations in the first place, and in fact, the recommendations would be much harder to adopt if the area remains in nonattainment status. Nonattainment areas are subject to more stringent requirements on new sources—new emissions must be offset by greater reductions of other emissions—than attainment areas. Therefore, the overall cost of the ACORN recommendations would be greater if Evansville were a nonattainment area.²⁰²

From the beginning, ACORN was “interesting and remarkable,” says McCabe:

There was a pretty big schism between the environmental community, the public advocate community, and the business community, and I think they perceived each other as lost causes for the most part. So to have them sit down and actually come up with something was pretty remarkable.

Business was interested in participating in the process to avoid having to deal with possibly more-stringent regulations that come with being a nonattainment area; environmentalists were interested for their own purposes, though a minority favored simply having the Indiana DEM impose rules from Indianapolis.

Things just sort of came together, and there was enough talking about it that people realized that it was probably better for them to put some attention into this themselves than to let us do it for them. . . . They talked through their issues. I don't think that everybody was totally happy with the outcome, but that is the nature of compromise.

On December 9, 1997, after over three years of delay, the U.S. EPA finally redesignated Evansville to an attainment area.²⁰³ The state, the county, and the city have moved forward with rules to implement two of the ACORN recommendations—the ones related to low-pressure paint guns and to vapor-recovery systems. As of early January 1998, the county had actually adopted the regulations, the city was moving forward with

²⁰⁰ Personal interview, Janet McCabe, Branch Chief, Policy and Planning Branch, Office of Air Management, Indiana DEM, September 15, 1997. Subsequent quotes from McCabe are from the interview unless otherwise indicated.

²⁰¹ *Final Report and Recommendations for VOC Emission Reductions in Vanderburgh County* (ACORN [Action Committee for Ozone Reduction Now], May 30, 1996), pp. 2–3.

²⁰² McCabe interview.

²⁰³ 62 Fed. Reg. 64,725.

them, and the state had proposed them. (The state had to separately enact the regulations for Vanderburgh County so the regulations could be a part of its State Implementation Act for the federal Clean Air Act.) Not all members of the original ACORN group are entirely pleased that not all of the recommendations are being adopted, but the U.S. EPA's position is that because of an unrelated proposed ozone-reduction rule, stemming from the work of the Ozone Transport Assessment Group, that will take effect across the Midwest, more regulations may not be necessary. However, this may change as newly adopted, more-stringent ozone regulations come into effect.²⁰⁴

B. Three-Way Partnerships in Utah: The Southwest Partnership for the Environment

On January 10, 1996, a three-way partnership was formed among the U.S. EPA, the Utah DEQ, and the Southwest Utah Public Health Department (one of twelve Utah local health departments).²⁰⁵ In the past, the overlapping jurisdiction of these three agencies created problems in dealing with environmental issues. Some issues were never addressed because each agency thought another was responsible, while other issues were addressed differently by the different agencies. The state did not trust the federal government, and the locals did not trust either the state or the federal government, because each level of government was acting in an oversight role toward the lower levels of government. (A common perception, Utah officials report, was, "If [the U.S.] EPA is coming to the table you can't talk about anything because they'll fine you.")²⁰⁶

The situation was widely seen as being inefficient, ineffective, confusing, and frustrating; the public was only interested in having environmental problems addressed and was not highly conscious of the difference between the agencies or why there should be three different ones. Faced with the need to come up with a coherent, unified strategy to address pressing environmental concerns, the Utah DEQ felt that a partnership was in order. While neither of the three agencies had jurisdiction over the entire scope of environmental policy (septic tanks, for instance, are almost exclusively a local matter), they felt that coming together over the whole range of issues would be more productive than working piecemeal each in their own jurisdiction. But Brent Bradford, deputy director of the Utah DEQ, explains that partnerships had actually rarely been tried:

*When we put it on the table conceptually, I was surprised to find that there were not examples of where that kind of partnership between state and local and federal government had occurred in environmental issues. You know, it sounded like the right thing to do. I was surprised somebody hadn't done it before.*²⁰⁷

Southwest Utah is a rapidly growing area, mainly attractive because of its small-town, scenic, fair-weather lifestyle. Many new subdivisions have sprung up in recent years. The only source of drinking water in many areas is groundwater, and because many new developments are too small to justify building a sewer system, they rely on septic systems, which consist of an underground tank and a drainfield—several feet of soil between the tank and the groundwater—for sewage disposal. Because septic systems leach their contents into the soil, which purifies the sewage of most (but not all) of its contaminants, whether the area can handle

²⁰⁴ Personal communication, Janet McCabe, January 6, 1998.

²⁰⁵ Utah DEQ's application for EPA Region VII's External Awards 1997, nominating Southwest Partnership for the Environment (henceforth "Southwest Partnership Application"), p. 1. See also "Trailblazing Utah Plan Would Make Locals Equal Partners," *State Environmental Monitor*, vol. 1, no. 3 (May 6, 1996), p. 4.

²⁰⁶ Personal interview, Gary Edwards, Director, Southwest Utah Public Health Department, September 4, 1997.

²⁰⁷ Personal interview, Brent Bradford, Deputy Director, Utah DEQ, September 3, 1997.

septic systems depends on how many systems there already are in the area, how fast the groundwater is moving, how much soil there is, and whether the soil is of the right type.²⁰⁸

In some instances, people have bought lots and later learned that septic systems could not be installed because soil conditions were unsuitable for such systems, or because lot sizes were so small that septic systems were spaced too closely or placed too close to drinking water wells. The federal government has no national regulations for such conditions—since conditions in southwest Utah are specific to that area—and the state of Utah, following the federal government’s lead, has consciously not regulated in that area either, preferring to leave the task to the local health departments. Even the local health departments have found significant diversity of needs in their own areas—in southwest Utah, for instance, the more urbanized Washington County, with over 70,000 people, has different needs than the highly rural Garfield County, with 5,000 people.²⁰⁹

Bradford believes that the partnership was successful because the Utah DEQ made the effort to find out what issues were most important to the locals. Meetings were held with invited community leaders from the five counties of Beaver, Garfield, Iron, Kane, and Washington; attendees identified specific environmental concerns, which, by a fortunate coincidence, happened to correspond to the concerns identified in the statewide Environmental Comparative Risk Project, though the order of the issues was different. (If the local issues of concern had been different, said Bradford, the state would have tried to revisit its own original rankings.) People in southwest Utah overwhelmingly believed that drinking water and wastewater were primary environmental concerns; other concerns included landfills, radon, used tires, and air quality.

The three agencies began to work together and accomplished much more than they had previously with hardly any increase in total budgets. According to Gary Edwards of the Southwest Utah Public Health Department, they did more in 18 months than they could have otherwise done in three to five years.²¹⁰ Rather than having two agencies overseeing a third, the three were focusing their resources together on the same problems, which in this case primarily involved water and wastewater.²¹¹ The partnership resulted in a regulation addressing nonpublic water systems, an “Ideas for Water Management Strategies” workshop, a certification program for people interested in conducting percolation tests and soil analyses for septic systems, and other programs.²¹² A committee, composed of the Southwest Utah Public Health Department, the Five-County Association of Governments, county building inspectors and planners, and state and federal experts, proposed amending subdivision approval regulations so that:

- where septic systems are used, the subdivision developer must show that wastewater disposal and safe drinking water are possible for every proposed lot, and
- the developer is required to supply groundwater data, designate areas unsuitable for septic systems, perform percolation tests for each proposed lot, and provide other information to verify feasibility.

The committee also recommended:

- requiring proof of an acceptable sewage disposal system and approved drinking water source before issuing a building permit for a specific lot, and

²⁰⁸ Personal interview, Laurence Parker, consultant to the SWUPHD through the NOWCC program funded by the U.S. EPA, September 4, 1997.

²⁰⁹ Edwards interview.

²¹⁰ *Ibid.*

²¹¹ Bradford interview.

²¹² Southwest Partnership Application, p. 3.

- disclosing all site-evaluation information and local-government findings to prospective lot purchasers.²¹³

The issue, to Bradford, is not “decentralization” as such; rather, this project really was a partnership, since each agency actually brought its own areas of expertise to the table and worked together with the others. The federal government primarily brought its technical expertise, its contacts with other federal agencies like the Bureau of Land Management, and other resources. Major psychological barriers—the ingrained mistrust between locals, state officials, and feds, and each agency’s belief that the partnership was not one of equals because they could do it best—had to be overcome, as they were in the end. One of the results of the partnership was that the local health department came out of the process with increased credibility.²¹⁴

While the locals trust the U.S. EPA now more than they used to, environmental officials in southwest Utah still wish that some federal laws were less detailed and prescriptive. For instance, local developers do not see the need for expensive testing of water supplies for pesticides under the Safe Drinking Water Act when they go into an undeveloped area that is entirely pine and sagebrush (where obviously no pesticides had been used); local officials also do not think that the benefits from this rule justify the cost. Local officials believe that excessive federal landfill regulations, which have made some small community landfills close, have left some communities with no landfill for a hundred miles around, and have encouraged illegal dumping. They also find that federal regulations restricting land disposal of sewage are inappropriate in the hot, dry, and sparsely populated conditions of southwest Utah. Federal enforcement issues were not a problem in the southwest Utah partnerships, but Bradford is concerned that they may be in the future, as the Utah DEQ tries to expand the partnership concept to the other eleven local health departments.²¹⁵

C. Whither the U.S. EPA?

In other states, too, more decisionmaking authority is being put into the hands of local governments—or, at least, local governments, residents, and businesses are participating more in the development of environmental policy. A few examples of watershed- or county-based environmental participatory or decisionmaking institutions follow:

- In Virginia, the Shenandoah Valley Pure Water 2000 Forum is a nonprofit organization that addresses water quality and environmental education in the Shenandoah River watershed. Representatives of conservation and water quality monitoring groups, local and state governments, business and industry, agriculture, conservation and planning districts, and other entities participate in the forum. The forum grew out of a series of environmental education conferences called Fall River Renaissance campaigns in 1996 and 1997, and was particularly inspired by a brainstorming session called “Coors Pure Water 2000,” hosted by Coors Brewing Co.–Shenandoah at the 1996 FRR. The forum’s goals are to improve water quality in the Shenandoah Valley; to promote environmental education in schools and communities; to coordinate the efforts of participating groups; to collect, organize, and develop a database for valley watershed data; and to promote riparian restoration activities in the watershed. The group is partially funded by the Virginia Department of Conservation and Recreation.²¹⁶

²¹³ Southwest Utah Public Health Department, *Proposed Actions to Protect Ground Water in Southwest Utah*.

²¹⁴ Bradford interview.

²¹⁵ *Ibid.*

²¹⁶ Personal communication, Kathryn Bartenhagen Phillips, Watershed Coordinator, Shenandoah Valley Pure Water 2000 Forum, December 19, 1997.

- In Maryland, under the Smart Growth program, the more highly developed areas of the state are designated as “Priority Funding Areas,” and state funding for infrastructure projects—highways, sewer and water construction, economic development assistance, state leases, or construction of new office facilities—is channeled into those areas instead of to lower-density areas. The implementing legislation, the 1997 Smart Growth Areas Act, designates certain areas as Priority Funding Areas, but because local governments are better suited to manage growth and determine the locations most suitable for development, counties may designate additional Priority Funding Areas if these areas have capacity available for development and meet specified requirements for use, water and sewer service, and residential density. In non-Priority Funding Areas, state-funded projects must not increase the growth capacity of the village or community, except for limited peripheral and in-fill development. The Smart Growth program doesn’t regulate private development, but it does tell developers that if they want to develop in a rural area, the state will not therefore necessarily subsidize the construction of highways and sewer systems. The goal of the Smart Growth program is not only to reduce the pressure for sprawl by channeling development into Priority Funding Areas, but also to avoid higher taxes which would be necessary to fund new infrastructure in low-density areas.²¹⁷

Given, first, the widespread feeling among states that the federal government is inflexible; second, the states’ good (so far) track record of environmental innovation and the successful examples of local decisionmaking; and third, the fact that state and local agencies are generally well qualified to make a wide variety of environmental judgments²¹⁸—where is the U.S. EPA going, and where should it go? In a world of problem-solving instead of punishment, balancing of competing environmental interests, flexible compliance, incentives for private stewardship, and local decisionmaking, where does the federal presence best fit in?

The most-important lesson to be learned, as Barry McBee, chairman of the TNRCC, puts it, is that, in many aspects of environmental regulation, “Mother, please, I’d rather do it myself.” McBee is echoing an early commercial for the pain reliever Anacin in which:

the young woman in the commercial screeches at her mother in anger and frustration, not because she can’t get the cap off the Anacin bottle, which is why I typically screech angrily when dealing with pharmaceuticals today, but because she’s trying to convey to her mother a message: the message that she can do things for herself, that she’s no longer a child or in need of parenting.

The states may have been immature, inexperienced, “problem children” in the 1970s, says McBee, but in the 1990s, 30 years into the era of active government environmental protection, the states have matured. They have well-developed environmental laws and regulations; they have compliance and civil and criminal enforcement mechanisms in place; nine out of ten environmental enforcement actions in the nation are brought by state environmental agencies and state attorneys general; and states have an adequate and talented pool of environmentally educated and trained engineers, technicians, lawyers, and public policy experts. The suggestion that states, if freed from the micromanagement of the U.S. EPA, will “race to the bottom” troubles McBee, because it suggests that state agencies are captive to their regulated communities, that state elected leaders are unresponsive to their people’s environmental concerns, that voters are unresponsive to their elected officials’ actions and would not vote anti-environment officials out of office, and that the

²¹⁷ Maryland Office of Planning, *Smart Growth Fact Sheet*, “Smart Growth Areas Act: An Overview.”

²¹⁸ Over fiscal years 1986–1994, total state expenditures on environmental and natural resource programs more than doubled, increasing from \$5.2 to \$10.7 billion. For fiscal year 1994, the last year in which final figures are available, federal resources represented 25 percent of total state environment and natural resource expenditures, or \$2.7 billion of \$10.7 billion spent. While EPA grant funds have remained relatively stable, state expenditures have increased dramatically. ECOS and National Council of State Governments.

agency in Washington is immune from the same public-choice considerations to which the state agency is captive.

“As all parents must inevitably ‘let go’ of their adult children to live their lives independently and productively,” McBee concludes, “so must [the U.S.] EPA ‘let go’ of the states’ environmental agencies.”²¹⁹

As for what positive agenda the U.S. EPA should actually follow under a new regime of devolution, Jim Seif, secretary of the Pennsylvania DEP, offers a few suggestions. In 1970, when the U.S. EPA was set up, there was a debate about its basic role; one of the models suggested was that the U.S. EPA might play the role similar to the National Institutes of Health or even the original Food and Drug Administration—a scientific agency in charge of setting standards, issuing bulletins, and conducting basic research, with the states actually running the programs. Instead, the U.S. EPA was established as a hands-on agency, running all of the programs but delegating them under certain conditions to the states (except for Superfund, “which, interestingly enough, is the least-effective federal environmental statute in history”). Seif, like McBee, believes that a strong federal role was appropriate then, as it was for civil rights. But the time is ripe for a greater state role. The resulting web of state regulation will be less uniform than what would be thought up from Washington, “but neatness never got extra points in a democracy.”

The U.S. EPA might also take on more of an international role, enter into more public-private partnerships, place more emphasis on scientific research, and encourage technology development and technology transfer. “Those remain roles that would elude most states in terms of their focus and in terms of their budget,” says Seif. “Issuing permits does *not* elude me. I do more of that than any [U.S.] EPA region. In a morning we could do that. So they don’t need to occupy the field anymore.”

D. Conclusions and Recommendations

There is no single means to make sure that local authorities are given the responsibility for solving local problems—and, in general, to allow problems to be addressed at the level of government closest to where they and their impacts occur. Some problems will continue to be best tackled through state or even federal programs. However, local and community-based programs are especially appropriate where problems are location-specific and where environmental impacts are also confined to local geographical boundaries. EPA and the states are already experimenting with place-based approaches, especially in the realm of watershed management, where at least 70 local watershed management processes are underway.²²⁰ The following recommendations would encourage states and the EPA to move more decisively in the direction of local problem-solving:

- Congress should begin evaluating the prospects of creating a unified or integrated environmental statute that would, among other actions, spell out steps and circumstances in which responsibility should be devolved to states.
- EPA should establish itself in the role of mediator, or facilitator and provider of technical information to community environmental problem-solving efforts, rather than as final reviewer and ultimate decision-maker.

²¹⁹ Barry McBee, remarks at the Environmental Superconference, Austin, Texas, August 1, 1997. McBee’s views are also taken from a personal interview on August 27, 1997.

²²⁰ See *The Watershed Source Book: Watershed-Based Solutions to Natural Resource Problem* (University of Colorado, Natural Resources Law Center).

Part 6

Conclusion

The essence of innovations is that we do not know whether they will succeed. Indeed, for a process of innovation to succeed, individual projects must be allowed to fail. The experience of state environmental innovations, though, suggests that states are resilient enough to learn from any mistakes, bounce back from any failures, and overcome the barriers that stand in the way of better environmental protection programs.

The case studies outlined in the previous sections show the variety of barriers to successful environmental programs.

- Many of the barriers are primarily psychological—the attitude, among local, state, or federal officials that “the way we’ve always done it” is the best way or the only way. These sorts of barriers are generally overcome through inspired leadership, and through the governors (whether Democratic or Republican) who appoint innovative state environmental-agency directors.
- Many of the barriers are technical, as some of the variables we might want to measure are difficult or impossible to measure directly. In an age where air emissions were hard to observe, it may have been rational for regulators to rely on cruder, easier proxies, such as mandating particular control technologies. These barriers can be overcome with time, as the costs of using a crude proxy become more apparent, and as analytical techniques make it easier to measure environmental variables directly.
- But the barriers that loom largest in today’s environmental policy, and which at times seem the least tractable, are institutional barriers, primarily those associated with the state-federal relationship.

The state-federal relationship will not necessarily always be pleasant. But while we should not expect roses at every turn, we should bear in mind the admonition given to Bruce Wayne by Alfred, the butler in *Batman and Robin*: “You must learn to trust one another, for that is the nature of family.” Specifically, as outlined in this paper:

- State environmental agencies should continue moving toward solving environmental problems instead of primarily focusing on punitive measures. The U.S. EPA should accept that the most severe degree of enforcement is not always the most effective, and that in some cases—particularly when violations are unintentional—amnesty or compliance assistance may be more effective.
- Balancing competing environmental and other values is the essence of intelligent environmental protection, and states should be encouraged to continue moving in this direction. In particular, the U.S.

EPA should adopt a more flexible, compliance- and performance-based attitude toward brownfield remediation and other programs.

- Flexibility is one of the keys to optimal environmental results. State environmental agencies should continue developing flexible compliance programs, and the federal government should be more flexible, whether in approving state programs or in coming to flexible environmental-management agreements with private parties (as with the XL program). Agencies should not tie the degree of flexibility to the promised degree of superior environmental results as defined by the U.S. EPA. Clear variance procedures should be established where they do not now exist.
- Market forces and private property can be powerful tools for responsible environmental stewardship, and states should actively explore private-sector solutions to environmental problems, such as those outlined in this report.
- Finally, both states and the federal government should be more actively involved in decentralization efforts or partnerships with local entities. Recent watershed management experiments may serve as a model.

State-federal environmental relations are “moving in the right direction,” says Mary Gade:

It’s just very slow for some of us who are ready for it to happen more quickly, and I understand some of the institutional and personal barriers to that. But it will take strong leadership—both continuing strong leadership from the states, and continuing strong leadership (and perhaps renewed commitment) from the senior officials at [the] U.S. EPA to make this happen. You have got to want it to happen to make it happen in the face of people backsliding, re-entrenching, fighting it. . . . The dialogue has started. I suspect it is not unreasonable that there are lots of rocks in the road.

Pennsylvania’s Jim Seif, for his part, believes that the change is, in a way, inevitable. Regardless of who the next president is, the U.S. EPA will have a different role in the next administration.

Part 7

About the Authors

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