

“STANDARD” AND “ALTERNATIVE” ENVIRONMENTAL PROTECTION: THE CHANGING ROLE OF ENVIRONMENTAL AGENCIES

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INTRODUCTION

For the past ten years or more, environmental protection agencies have been undergoing an extended and fundamental strategic reassessment.¹ While the core mission—protecting human health and the natural environment—remains undisputed,² there is increasing debate over the means by which to ad-

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¹ At the federal level, these efforts first became visible as part of the Clinton-era “re-invention” efforts. See David W. Case, *The EPA’s Environmental Stewardship Initiative: Attempting to Revitalize a Floundering Regulatory Reform Agenda*, 50 EMORY L. J. 1 (2001) (giving an overview of developments in the Clinton era) [hereinafter Case, *The EPA’s Environmental Stewardship Initiative*]. The subsequent Bush Administration continued to endorse a search for innovative strategies. In 2002, under Administrator Christine Todd Whitman, the EPA issued a report entitled “Innovating for Better Results: A Strategy to Guide the Next Generation of Innovation at EPA.” See U.S. ENVTL. PROT. AGENCY, DOC. NO. 100-R-02-002, INNOVATING FOR BETTER ENVIRONMENTAL RESULTS (2002) [hereinafter INNOVATING FOR BETTER ENVIRONMENTAL RESULTS], available at <http://www.epa.gov/innovation/pdf/strategy.pdf>. Michael Leavitt, the second EPA Administrator in the Bush Administration, used the term “better way” to describe his goal of achieving environmental objectives in a more collaborative, less costly and more locally tailored fashion. See U.S. ENVTL. PROT. AGENCY, ADMINISTRATOR’S 500-DAY PLAN (2003) [hereinafter ADMINISTRATOR’S 500-DAY PLAN], available at <http://www.epa.gov/adminweb/administrator/500day.pdf>. In 2006, the “Action Plan” of yet another administrator, Stephen Johnson, identified “Innovation and Collaboration” among his core “Principles to Accelerate the Pace of Environmental Protection.” See U.S. ENVTL. PROT. AGENCY, THE ADMINISTRATOR’S ACTION PLAN (2006) [hereinafter THE ADMINISTRATOR’S ACTION PLAN], available at <http://www.epa.gov/adminweb/administrator/actionplan.pdf>. At the state level, parallel initiatives sprang up without federal urging in such disparate locales as Wisconsin, Oregon, New Jersey, Massachusetts, and Texas. See Jerry Spier, *EMSs and Tiered Regulation: Getting the Deal Right*, in REGULATING FROM THE INSIDE: CAN ENVIRONMENTAL MANAGEMENT SYSTEMS ACHIEVE POLICY GOALS? 198, 206-11 (Cary Coglianese & Jennifer Nash eds., 2001). In some cases, these programs also survived changes in administration; in others, they did not. See *infra* Part IV.

² See Environmental Protection Agency, About EPA, <http://www.epa.gov/epahome/aboutepa.htm> (last visited Dec. 1, 2006).

vance that goal.³ On one side of this debate are those who believe that an exclusive emphasis on regulation forgoes environmental benefits that can be achieved through more collaborative approaches;⁴ on the other are those who believe that an arms-length relationship among conflicting interests based on well-defined legal principles best furthers both public and private goals.⁵

This strategic choice has profound implications for environmental law. Our system of environmental protection has been, for the most part, a legally-driven one.⁶ The alternative being proposed, however, is one in which the role of law is not exclusive or even necessarily predominant.⁷

³ This debate has generated an extensive literature. *See, e.g.*, THE ASPEN INST., THE ALTERNATIVE PATH: A CLEANER, CHEAPER WAY TO PROTECT AND ENHANCE THE ENVIRONMENT (1996) [hereinafter THE ALTERNATIVE PATH]; ENTER. FOR THE ENV'T, THE ENVIRONMENTAL PROTECTION SYSTEM IN TRANSITION: TOWARD A MORE DESIRABLE FUTURE (1998) [hereinafter THE E4E REPORT]; THE PRESIDENT'S COUNCIL ON SUSTAINABLE DEV., SUSTAINABLE AMERICA: A NEW CONSENSUS FOR PROSPERITY, OPPORTUNITY AND HEALTHY ENVIRONMENT FOR THE FUTURE (1999), available at <http://clinton2.nara.gov/PCSD/Publications/tsa.pdf>; THINKING ECOLOGICALLY: THE NEXT GENERATION OF ENVIRONMENTAL POLICY (Daniel C. Esty & Marian R. Chertow eds., 1997). *See generally* Case, *The EPA's Stewardship Initiative*, *supra* note 1; Bradley C. Karkkainen, *Environmental Lawyering in the Age of Collaboration*, 2002 WIS. L. REV. 555 (2002); *The National Symposium on Second Generation Environmental Policy and the Law*, 29 CAP. U. L. REV. 1 (2001); Rena I. Steinzor, *Reinventing Environmental Regulation: The Dangerous Journey from Command to Self-Control*, 22 HARV. ENVTL. L. REV. 103, 163 (1998) [hereinafter Steinzor, *Reinventing Environmental Regulation*]; Barton H. Thompson, Jr., Foreword, *The Search for Regulatory Alternatives*, 15 STAN. ENVTL. L. J. viii (1996).

⁴ *See, e.g.*, THE ALTERNATIVE PATH, *supra* note 3, at 25-26 (arguing for a flexible, stewardship-based approach to environmental protection); THE E4E REPORT, *supra* note 3, at 4 (arguing for an environmental protection system that offers "flexibility of means"); John Gordon & Jane Coppock, *Ecosystem Management and Economic Development*, in THINKING ECOLOGICALLY: THE NEXT GENERATION OF ENVIRONMENTAL POLICY, *supra* note 3, at 37, 37-38 (arguing for a "collaborative approach" to settling environmental protection and economic development conflicts); Thompson, *supra* note 3, at viii-ix (arguing that the inflexibility of "command-and-control" environmental regulation has been ineffective, "inefficient . . . [and] costly").

⁵ *See, e.g.*, Steinzor, *Reinventing Environmental Regulation*, *supra* note 3, at 201-02 (arguing that EPA's move away from "command and control" regulation to "industry self-regulation" is dangerous for the environment, EPA and the public).

⁶ *See, e.g.*, Karkkainen, *supra* note 3, at 555-58.

⁷ *See* ENVIRONMENTAL GOVERNANCE RECONSIDERED 2-3 (Robert F. Durant, Daniel J. Fiorino & Rosemary O'Leary eds., 2004) (contrasting "rule-based" and "results-based" approaches to environmental protection); NAT'L ACAD. OF PUB. ADMIN., RESOLVING THE PARADOX OF ENVIRONMENTAL PROTECTION xi (1997) [hereinafter RESOLVING THE PARADOX]; THE E4E REPORT, *supra* note 3, at 57-60 (advocating a more "values-driven" approach).

The emphasis is not on achieving legally-defined standards, but in continually improving environmental outcomes.⁸ Moreover, improvement is driven not only by regulations but also by leadership from business, communities, consumers and investors.⁹ In this model, legal authorities are tools for improving environmental performance, but these authorities do not fully define the desired outcomes.¹⁰ Regulations are action-forcing devices, baselines from which negotiation and even partnership may proceed.¹¹ In a Copernican shift of perspective, law loses its central position and the government becomes only one of many players in a more complex system of environmental protection. Business in particular becomes a driving force for change, not simply a passive participant reluctantly complying with legal directives.¹²

To what extent have we moved toward an “alternative” model of environmental protection? From the public statements of top agency officials, one might conclude that it is gaining wide acceptance.¹³ Furthermore, it can be argued that agencies risk forfeiting their positions of leadership if they fail to recognize the full range of potential new strategies. However, core regulatory programs still dominate agency business, and even limited steps away from a legally-focused strategy have repeatedly proven controversial.¹⁴ Attempts to integrate non-traditional approaches into traditional programs have had mixed success and skepticism about the efficacy of those approaches remains.¹⁵

⁸ See generally THE E4E REPORT, *supra* note 3; RESOLVING THE PARADOX, *supra* note 7, at xi (“EPA and the states must adopt new policies, systems, and techniques that focus on environmental performance and results, rather than prescribe end-of-pipe controls.”).

⁹ THE E4E REPORT, *supra* note 3, at 49-60. NAT’L ACAD. OF PUB. ADMIN., ENVIRONMENT .GOV: TRANSFORMING ENVIRONMENTAL PROTECTION FOR THE 21ST CENTURY 20 (2000) [hereinafter ENVIRONMENT.GOV], available at <http://www.p2pays.org/ref/18/17718.pdf>; Kurt Strasser, *Cleaner Technology, Pollution Prevention, and Environmental Regulation*, 9 FORDHAM ENVTL. L. J. 1, 3 (1997).

¹⁰ THE E4E REPORT, *supra* note 3, at 49-60.

¹¹ *Id.* at 25.

¹² *Id.*

¹³ See, e.g., The Administrator’s Action Plan, *supra* note 1 (identifying “[i]nnovation and [c]ollaboration” as a key principles under Administrator Johnson); Christine Todd Whitman, *A Message from the Administrator*, in INNOVATING FOR BETTER ENVIRONMENTAL RESULTS, *supra* note 1; Kathleen A. McGinty, *Environmental Armistice*, BLUEPRINT MAG., Mar. 23, 2004, http://www.dlc.org/ndol_ci.cfm?contentid=252477&kaid=116&subid=151 (discussing Secretary of Pennsylvania Department of Environmental Protection’s endorsement of collaborative approaches).

¹⁴ See *infra* Part II.B.

¹⁵ See, e.g., Steinzor, *Reinventing Environmental Regulation*, *supra* note 3.

The debate over the proper role of government agencies mirrors precisely the central question in this Symposium:¹⁶ whether corporations should adopt environmentally beneficial strategies beyond those required by law. Presumably, the same answer should be given in both arenas: if legal requirements are the chief mechanism through which we advance environmental protection, corporate obligations should focus on those requirements; if law is only one of multiple reference points, the corporation's role is also more complex.

This Article analyzes the reasons that agencies have explored "alternative" strategies, assesses the extent to which such strategies are being adopted, and analyzes why greater change has not occurred. Part I begins by identifying the limitations of the "standard model."¹⁷ Part II surveys the efforts that agencies have made to explore alternative strategies, examining some examples in depth.¹⁸ Part III identifies the leading alternative strategies that practitioners have developed and implemented.¹⁹ Part IV provides some case studies of the implementation of alternative model strategies. Finally, Part V assesses the degree of change to date and offers some predictions about the likely future evolution of environmental policy.²⁰

I. THE STANDARD MODEL AND ITS LIMITATIONS

The competing models of environmental regulation discussed in this Article both have long pedigrees. While the legally-focused approach has historically been predominant, there have been proponents of a more collaborative, flexible and performance-oriented approach for many years.²¹ By the same token, it is misleading to label the former as the "tradi-

¹⁶ This Article was prepared for and presented at the Symposium on "Corporate Governance and Environmental Best Practices," organized by the *William & Mary Environmental Law and Policy Review*, The College of William & Mary School of Law, Williamsburg, Virginia, on February 4, 2006. See Symposium, *Corporate Governance and Environmental Best Practices*, 31 WM. & MARY ENVTL. L. & POL'Y REV. 1 (2006).

¹⁷ See *infra* Part I.

¹⁸ See *infra* Part II.

¹⁹ See *infra* Part III.

²⁰ See *infra* Part IV.

²¹ See, e.g., Bruce A. Ackerman & Richard B. Stewart, *Reforming Environmental Law: The Democratic Case for Market Incentives*, 13 COLUM. J. ENVTL. L. 171, 173-78 (1988); Richard B. Stewart, *Regulation, Innovation, and Administrative Law: A Conceptual Framework*, 69 CAL. L. REV. 1259, 1273-77 (1981) [hereinafter Stewart, *Regulation, Innovation, and Administrative Law*].

tional” or “old” view, since this prejudices the debate. Instead, these will be referred to as the “standard” and “alternative” models.²²

A. *The Standard Model*

The standard model is the one most familiar to the general reader. It views business goals and environmental goals as conflicting, with the government called upon to arbitrate between competing social interests (e.g., economic costs and environmental benefits) by setting out legal requirements that reflect its judgment about the most appropriate balance.²³ Legal standards are set through legislative and administrative processes;²⁴ businesses and other non-governmental parties can participate in these processes, but once the rules are set, the government’s job is to enforce them and the job of business is to comply.²⁵

In this model, relations between government and business are primarily adversarial. Market forces drive business to ignore external costs; indeed, failing to exploit a resource whose cost could be externalized could be fatal to the corporation.²⁶ Government intervenes, therefore, to correct the imbalance. To the extent that businesses may have an interest in taking steps that also happen to benefit the environment (e.g., installing more energy-efficient equipment), this is simply part of the “baseline” pattern of behavior that the government takes as its starting point.

Thus, in the standard model the relationship between government and business is an arms-length one based on well-defined legal standards.

²² For the same reason, I avoid using the term “second generation” environmental protection to describe the alternative model, although it has enjoyed some popularity among commentators. See, e.g., *The National Symposium on Second Generation Environmental Policy and the Law*, *supra* note 3.

²³ See, e.g., Daniel J. Fiorino, *Flexibility*, in ENVIRONMENTAL GOVERNANCE RECONSIDERED, *supra* note 7, at 393, 397-98 [hereinafter Fiorino, *Flexibility*] (analyzing the legalistic model and describing underlying assumptions); Case, *The EPA’s Environmental Stewardship Initiative*, *supra* note 1, at 9-10 (analyzing the standard model and contrary views).

²⁴ Administrative law generally divides agency action between rulemaking and adjudication. See generally Stewart, *Regulation, Innovation, and Administrative Law*, *supra* note 21, at 1273-77. In the environmental field, adjudication plays a relatively small role in contrast to arenas in which agencies do a great deal of case-by-case enforcement of general statutory principles. *Id.* E. Donald Elliott, *Environmental Markets and Beyond: Three Modest Proposals for the Future of Environmental Law*, 29 CAP. U. L. REV. 245, 247 (2001).

²⁵ See generally Stewart, *Regulation, Innovation, and Administrative Law*, *supra* note 21, at 1274-75 (discussing the establishment and history of “notice-and-comment” rulemaking procedures).

²⁶ See Fiorino, *Flexibility*, *supra* note 23, at 398.

Business is not expected to try to come up with new and better ways of protecting the environment, and government is not expected to negotiate away its standards once they have been put in place. Environmental agencies are not concerned with matters of corporate behavior or management; they limit their concerns to setting and enforcing regulatory requirements.

B. Limitations of a Law-Centric Approach

For almost as long as the standard model has been in place, there have been critics who contend that it can be improved to achieve better environmental results at lower cost.²⁷ There are a variety of reasons for this belief, but some recurring themes are (1) inherent limitations in regulation as a tool for stimulating continued improvement,²⁸ (2) the superior technical capacity of businesses to develop environmental solutions (if properly motivated to do so),²⁹ and (3) the transaction costs associated with an adversarial approach.³⁰

1. Regulation's Limitations

Critiques of environmental regulation abound,³¹ and it will not be possible to do them full justice here. The most longstanding arguments focus on the efficiency (or lack thereof) of so-called "command-and-control" regulation.³² Standard-model analysis tends to focus especially on the

²⁷ Several scholars have summarized these critiques. *See, e.g.*, Eric W. Orts, *Reflexive Environmental Law*, 89 NW. U. L. REV. 1227, 1235-41 (1995); Robert W. Hahn & Robert N. Stavins, *Incentive-Based Environmental Regulation: A New Era from an Old Idea?*, 18 *ECOLOGY L.Q.* 1, 5-6 (1991).

²⁸ *See infra* Part I.B.1.

²⁹ *See infra* Part I.B.2.

³⁰ *See infra* Part I.B.3. Both standard and alternative critiques can be seen as implicitly comparing the outcomes under regulation with those that would occur if environmental harms were fully internalized and firms responded as they do in any other market. On one hand, corporations would only take those actions to reduce environmental harm in which the benefits exceeded the cost. At the same time, they would continuously seek to find new ways of reducing the (internalized) cost of the remaining harms, creating persistent pressure to develop new technologies, change products, or take other actions that would improve the environment. As a result, environmental performance would steadily improve.

³¹ *See generally supra* note 27.

³² The term "command and control" has been an enormously effective rhetorical device to disparage all forms of regulation, even though not all regulation prescribes particular behaviors that must be adopted. *See Orts, supra* note 27, at 1235-41.

tradeoff between environmental and economic values, which are assumed to be largely in conflict.³³ Thus, there is an immense literature debating whether environmental regulations are unduly costly relative to the benefits they achieve.³⁴

Alternative-model thinking tends to focus more heavily on another form of inefficiency: whether regulations overlook opportunities to achieve benefits that could be attained at a reasonable cost. There are a variety of reasons to believe that this could be the case. First, it is widely asserted that regulations make it more costly than necessary to achieve desired environmental goals, because regulations are unduly prescriptive about the means by which to comply.³⁵ While this argument is often used by standard-model critics of regulation, alternative-model proponents focus on the potential for redesigning regulations to reduce cost and improve performance at the same time.

A short digression on the role of cost in alternative-model thinking may be warranted here. Redesigning regulation to be less expensive is often seen as a concession to industry; in fact, under the standard model, cost and protection are generally assumed to be directly related, so that efforts to find cheaper options are typically perceived as sacrificing environmental goals. This aspect of the alternative model tends to attract claims that it is a cover for backsliding on environmental protection. However, advocates of flexibility see cost savings as potentially leading to improved environmental performance in the long run. Just as developing a cheaper way of producing any other good will likely make it more widely used, they believe reducing the marginal cost of environmental protection should eventually allow more ambitious targets to be set.³⁶ One of

³³ *Id.* at 1236.

³⁴ See, e.g., STEPHEN BREYER, *BREAKING THE VICIOUS CIRCLE* (1995); CASS R. SUNSTEIN, *THE COST-BENEFIT STATE* (2002); Lisa Heinzerling, *Regulatory Costs of Mythic Proportions*, 107 *YALE L.J.* 1981 (1998); Conference, *Cost-Benefit Analysis: Legal, Economic, and Philosophical Perspectives*, 29 *J. LEGAL STUD.* 837 (2000).

³⁵ See, e.g., *RESOLVING THE PARADOX*, *supra* note 7, at xi-2; Richard B. Stewart, *A New Generation of Environmental Regulation?*, 29 *CAP. U. L. REV.* 21, 30-31 (2001) [hereinafter Stewart, *A New Generation*]; William F. Pedersen, *Contracting with the Regulated for Better Regulations*, 53 *ADMIN. L. REV.* 1067, 1069-70 (2001) (discussing how environmental laws conflate ends with the means for achieving those ends).

³⁶ To put the analysis in microeconomic terms, the “alternative model” seeks to lower the cost curve for environmental protection, which will tend to both reduce the marginal price and increase the total “production.” A concrete example is the acid rain program established by the Clean Air Act Amendments of 1990. Clean Air Act Amendments, Pub. L. No. 101-549, 104 Stat. 2399 (1990)(codified at 42 U.S.C. § 7651 (2006)). By agreeing to a trading approach,

the most important questions to ask as we actually test alternative-model strategies is whether this proves to be true, or whether “performance-based” rules simply reduce the cost of achieving the same environmental goals.³⁷

A second limitation on regulation is that it emphasizes uniformity and does not encourage or reward performance beyond what is mandated.³⁸ Standards are set for large categories of regulated entities, but due to variations among firms it is likely that some could achieve greater environmental benefits at reasonable costs.³⁹ Once the standard is in place, it creates no pressure to achieve beyond that regulated standard. Furthermore, a static, uniform standard creates no incentive to find new technologies or strategies for achieving additional benefits at reasonable cost.⁴⁰

Third, regulations do not address all potential strategies evenhandedly. They tend to emphasize technologies for treating pollution once it has been created, and to overlook “pollution prevention” strategies such as redesigning products or production processes.⁴¹ Although pollution prevention can be highly cost-effective (it can even save money or have other business advantages), it is difficult to mandate because it is complex and affects fundamental decisions within regulated organizations. Strategies for changing the very nature of production often grow in an organic way out of the business strategies and culture of particular

those seeking to reduce acid rain were able to obtain more stringent limitations on emissions of sulfur dioxide. See Dallas Burtraw & Karen Palmer, *SO₂ Cap-and-Trade Program in the United States*, in CHOOSING ENVIRONMENTAL POLICY 41, 43-44 (Winston Harrington, Richard D. Morgenstern, & Thomas Sterner eds., 2004) (describing the “grand experiment” resulting from compromise between industry and environmentalists).

³⁷ Cost reduction is of course not a bad thing, but a one-sided improvement to the system makes matters more complex by putting greater scrutiny on whether the environmental results are actually being maintained.

³⁸ See Ackerman & Stewart, *Reforming Environmental Law*, *supra* note 21, at 174; Stewart, *Regulation, Innovation, and Administrative Law*, *supra* note 21, at 1273-77. In contrast, a pollution tax would create the incentive to continually search for ways to reduce pollution at costs lower than the tax.

³⁹ The variation among firms in costs of reducing pollution is well known. See, e.g., Stewart, *A New Generation*, *supra* note 35, at 31-32. Critics generally emphasize that this means that any given level of reduction could be achieved at lower cost by trading among firms. See *id.* The point here is slightly different: that under any given regulatory requirement there are likely to be firms that could achieve additional reductions at relatively modest cost, but that regulation generally creates no incentive to do more than is required.

⁴⁰ Fiorino, *Flexibility*, *supra* note 23, at 396-97.

⁴¹ Strasser, *supra* note 9, at 5-6, 26-28; Thompson, *supra* note 3, at viii-ix. Enforcement practices can also discourage pollution prevention. See Strasser, *supra* note 9, at 84-88.

organizations.⁴² Products can also be difficult to regulate for the same reason; for example, cars and pesticides that are made by relatively few manufacturers and sold in a national market can be centrally regulated, but controlling the makeup and design of many other products is far too cumbersome.⁴³ End-of-pipe controls, on the other hand, are easier to impose uniformly because they fall outside the core business and production processes,⁴⁴ even though they generally do not create any incentive to reduce the generation of pollution.⁴⁵

A fourth limitation is that rules may create procedural hurdles that are barriers to environmentally desirable actions. For example, pollution prevention can be done most effectively when it is relatively easy to change production processes. However, such changes may trigger permitting requirements that create delays and administrative burdens.⁴⁶ As a result, environmental benefits may be postponed or foregone entirely.⁴⁷

Finally, regulations have limits when it comes to controlling very small sources (which can have significant cumulative impacts) or individual behavior. For example, small farms can be significant contributors of pollution to both water and air.⁴⁸ However, the cost of administration and enforcement becomes prohibitive in these cases because of the sheer number of sources and their potential diversity. Furthermore, it is easier to achieve consensus on controlling large businesses than small ones, and regulation of individual behavior is rarely popular.⁴⁹

⁴² Strasser, *supra* note 9, at 52 (pollution prevention is more complicated than pollution control because it “requires innovative thinking, as well as organizational support—ultimately a whole change in corporate culture”).

⁴³ It is hard, for example, to centrally regulate the design of products that are not uniform from one manufacturer to another, or that are sold in relatively small quantities.

⁴⁴ Dennis Hirsch, *Second Generation Policy and the New Economy*, 29 *CAP. U. L. REV.* 1, 7 (2001).

⁴⁵ Strasser, *supra* note 9, at 21-22.

⁴⁶ See, e.g., Dennis D. Hirsch, *Lean and Green? Environmental Policy and the Flexible Production Economy*, 79 *IND. L. J.* 611, 630-39 (2004) [hereinafter Hirsch, *Lean and Green?*].

⁴⁷ See *id.* at 637.

⁴⁸ See J. B. Ruhl, *Farms, Their Environmental Harms, and Environmental Law*, 27 *ECOLOGY L.Q.* 263, 266 (2000).

⁴⁹ See RICHARD J. LAZARUS, *THE MAKING OF ENVIRONMENTAL LAW* 232 (2004) (“The U.S. public has long displayed a reluctance for self-regulation that is only matched by its zeal for the regulation of larger, industrial sources.”). Sensitivity about regulating small businesses is reflected in the special procedures agencies are required to follow when promulgating rules with significant small business impacts. See Keith W. Holman, *The Regulatory Flexibility Act at 25: Is the Law Achieving Its Goal?*, 33 *FORDHAM URB. L.J.* 1119 (2006).

2. The Potential for Business Leadership

In addition to highlighting the limitations of regulation, alternative-model thinking also puts greater reliance on the potential for business to solve environmental problems.⁵⁰ Properly motivated, businesses can develop better strategies for addressing environmental problems than the government because they know more about their own activities.⁵¹ Not only can they find better ways of controlling pollution, but (more importantly) they can take more fundamental steps such as redesigning products or production processes to use less toxic materials, generate less waste, or create less long-term risk.⁵² Thus, for those who are serious about committing to sustainability, it is important to free the organization to use its resources and expertise to attack its environmental problems more creatively and effectively.⁵³

Proponents of the alternative model criticize the regulatory approach for creating a passive “compliance” culture among business managers.⁵⁴ If the role of business is defined in terms of complying with rules, business is unlikely to take leadership in the areas where regulation falls short.⁵⁵ In the competition for corporate resources, expenditures to comply with the law have a much higher chance of approval than investments

⁵⁰ Fiorino, *Flexibility*, *supra* note 23, at 398-401. *See generally* Orts, *supra* note 27, at 1262 (proposing a “reflexive” model of law in which structures are created to facilitate self-direction by non-governmental institutions); James G. Speth, *Foreword* to BEYOND COMPLIANCE: A NEW INDUSTRY VIEW OF THE ENVIRONMENT, at ix-x (Bruce Smart ed., 1992); Press Release, The White House, Office of the Press Secretary, Remarks by the President on Project XL (Nov. 3, 1995) [hereinafter White House Press Release], available at <http://govinfo.library.unt.edu/npr/library/speeches/2662.html> (“Project XL is built on the simple premise that in many cases companies . . . understand how best to reduce their own pollution . . .”).

⁵¹ *See* White House Press Release, *supra* note 50.

⁵² *See generally* Speth, *supra* note 50.

⁵³ *See* Robert C. Paehlke, *Sustainability*, in ENVIRONMENTAL GOVERNANCE RECONSIDERED, *supra* note 7, at 35, 35-36.

⁵⁴ A note on the term “beyond compliance” is warranted here. *See* Speth, *supra* note 50. The term is commonly used in referring to the level of performance sought by alternative-model strategies. *Id.* However, it is potentially misleading in that it implies that “good performance” means compliance with all applicable regulations, plus something more. True business leadership might, however, identify strategies that achieve superior results but differ from what is required by law.

⁵⁵ *See* Thompson, *supra* note 3, at ix. A specific example is provided in NEIL GUNNINGHAM ET AL., SHADES OF GREEN: BUSINESS, REGULATION, AND ENVIRONMENT 107-09 (2003) (observing that environmental staff in firms that were “Committed Compliers” were less integrated into company planning than those in more environmentally proactive firms).

in other environmentally beneficial activities.⁵⁶ This effect is greatest on those staff who are specifically responsible for environmental management.⁵⁷ Ironically, when organizations have made visible commitments to major improvements in their long-term environmental performance, the impetus has usually come from senior business managers, not the environmental staff.⁵⁸ This corporate culture can be mirrored by agency staff, who define their roles as in terms of keeping business “in line” and have little interest in looking for environmental solutions other than those in the regulations. In this view, the regulatory culture in agencies is one primarily of ‘harm prevention’ rather than continuous improvement.⁵⁹

The obvious objection to relying on business to develop better solutions is that while it may have the expertise, it lacks the proper motivation. If businesses were natural environmentalists (or environmental costs were fully internalized), we would not need environmental laws in the first place. Proponents of the alternative model are not utopians, however.⁶⁰ One of the principal insights that has fueled thinking about new regulatory approaches is an evolving view of organizational motivation. First, we increasingly recognize that actions taken for business reasons may also be good for the environment: reducing pollution saves money because it means fewer materials purchased that do not end up in valuable products; reducing energy or water consumption can cut costs; and even steps as simple as replacing old production units with new ones may reduce waste.⁶¹ Some organizations aggressively pursue these possibilities, with environmentally beneficial results.⁶²

⁵⁶ GUNNINGHAM ET AL., *supra* note 55, at 20-21.

⁵⁷ *See, e.g., id.* at 109.

⁵⁸ *Id.* at 28-31.

⁵⁹ This distinction is of course oversimplified; the line between “preventing harm” and “creating benefit” is somewhat artificial. For example, an agency staff member developing a new and more stringent rule is of course aiming to improve performance. However, a regulatory model does not tend to reward those who develop new solutions not required by the rules; as a result within agencies there is a great deal of tension between the staff of enforcement programs and those in technical assistance programs. I am not aware of any studies systematically examining attitudes among agency staff; this would seem to be a fruitful area for future research.

⁶⁰ ENVIRONMENTAL GOVERNANCE RECONSIDERED, *supra* note 7, at 3 (“The ‘third way’ that these actors envision is grounded firmly in the realpolitik of environmental governance, not in gauzy notions of actors suddenly eschewing self-interest for the public good.”).

⁶¹ *See* Ken Geiser, *Pollution Prevention*, in ENVIRONMENTAL GOVERNANCE RECONSIDERED, *supra* note 7, at 427, 430-31.

⁶² *See* ROSS & ASSOCIATES ENVIRONMENTAL CONSULTING, EPA DOC. NO. 100-R-03-005, LEAN MANUFACTURING AND THE ENVIRONMENT: RESEARCH ON ADVANCED MANUFACTURING

Furthermore, regulated organizations have increasingly adopted proactive rather than reactive environmental strategies, ranging from systematic self-auditing to adoption of comprehensive environmental management systems.⁶³ They are not necessarily being altruistic; they are likely driven in part by factors such as fear of regulation (either current or anticipated future regulation), fear of tort liability, bad publicity, or community pressure.⁶⁴ However, these organizations choose to address such risks by identifying their environmental issues and attacking them aggressively rather than by avoidance or passive compliance.⁶⁵ Such firms design their own strategies for environmental control,⁶⁶ and are likely to develop expertise in finding business-environment synergies.⁶⁷ Often, in fact, it is difficult to say whether a particular action by such organizations is primarily motivated by environmental or business concerns.⁶⁸

In some cases (probably a small share of the business universe), firms have gone even farther and made significant environmental commitments, going well beyond what is required by law. For example, a growing number of major firms have committed to significant reductions in greenhouse gases.⁶⁹ Again, the underlying motive may be fear of future

SYSTEMS AND THE ENVIRONMENT AND RECOMMENDATIONS FOR LEVERAGING BETTER ENVIRONMENTAL PERFORMANCE 14-20 (2003), available at <http://www.epa.gov/lean/leanreport.pdf>.

⁶³ See Geiser, *supra* note 61, at 430-31.

⁶⁴ See *id.* at 431.

⁶⁵ See *id.* at 430-31.

⁶⁶ One recent study has shown that significant differences in environmental performance exist among firms in the pulp and paper industry that cannot be fully explained by economics, regulatory requirements, or even community pressures. See GUNNINGHAM ET AL., *supra* note 55, at 93-134. They conclude that "management style" seems to make a significant difference. *Id.* at 132-34.

⁶⁷ It has been observed that organizations with innovative business cultures tend to take on environmental issues in the same way. Richard Florida & Derek Davison, *Why Do Firms Adopt Advanced Environmental Practices*, in REGULATING FROM THE INSIDE, *supra* note 1, at 82, 88.

⁶⁸ See *id.* at 86-87.

⁶⁹ See Environmental Protection Agency, Climate Leaders, <http://www.epa.gov/climateleaders/partners/ghggoals.htm> (last visited Dec. 1, 2006) (detailing greenhouse gas emission reduction commitments of participants in EPA's "Climate Leaders" program). DuPont has set an overall goal of zero emissions of all kinds. See DuPont, Sustainable Growth Progress Report, http://www2.dupont.com/Social_Commitment/en_US/SHE/usa/us2.html (last visited Dec. 1, 2006). Dow has committed to reduce its energy use intensity (i.e. relative to production) by twenty-five percent from 2005 to 2015. Dow Chemical Company, Energy Efficiency and Conservation, <http://www.dow.com/commitments/goals/energy.htm> (last visited Dec. 1, 2006). Alcoa has set a variety of sustainability goals. See Alcoa, Inc., Sustainability and Alcoa, http://www.alcoa.com/global/en/about_alcoa/sustainability/2020_Framework.asp (last visited Dec. 1, 2006).

regulation or of bad publicity from environmental groups, which may help explain why it is often large and highly-visible companies that make such commitments. However, such behavior suggests at least a broader and more forward-looking sense of 'self-interest' than the standard model typically assumes.⁷⁰ Even if the standard model is correct in assuming that business and environmental goals conflict, the line between what a corporation does in its own self-interest, and what it does in the public interest, becomes increasingly blurry. Furthermore, it is clear that firms behave differently in the extent to which they adopt a broad view of self-interest, a difference that may have implications for public policy.⁷¹

When these possibilities are taken into account, a more complex picture emerges. On one hand, regulation is undoubtedly a principal force driving better environmental results.⁷² At the same time, if some regulated firms take the initiative to develop their own solutions to environmental problems, it is possible that regulatory strictures designed to control pollution sources may have the inadvertent effect of impeding desirable behavior.⁷³ They emphasize control and uniformity rather than continuous improvement; they focus on certain types of beneficial activity more than others; they may emphasize what to do rather than what goals to aim for; and they may impede desirable action. Thus, an exclusive emphasis on regulatory compliance might create a reactive, passive corporate culture and actually stand in the way of the environmental leadership that some firms are willing to provide.

3. Transaction Costs

A third source of frustration with the standard model, particularly for agency leaders, is the high level of transaction costs that a legally-based strategy often entails. Both rule-drafting and enforcement actions eat up significant amounts of agency time and money, and can take years to accomplish.⁷⁴ Rules are particularly vulnerable to delay because of the need to anticipate and analyze a wide range of potential impacts; the "ossification" of environmental rulemaking has been extensively

⁷⁰ See GUNNINGHAM ET AL., *supra* note 55, at 21-22.

⁷¹ See *generally id.* at 22.

⁷² See *id.* at 1-3.

⁷³ In some cases, as will be seen later, there are direct regulatory impediments to potentially desirable behavior. See *infra* note 125 and accompanying text. In others, as described here, there is a more general impediment resulting from an exclusive focus on regulatory compliance.

⁷⁴ See Pedersen, *supra* note 35, at 1084-88.

discussed.⁷⁵ Similarly, enforcement cases are subject to all the usual costs and delays associated with complex litigation. Agency leaders who want to see some kind of tangible progress within their tenures would like to find an easier alternative that spends fewer resources on process and more on achieving the desired outcomes.

The desire to reduce transaction costs works hand in hand with the desire to take advantage of the potential for leadership on the part of regulated organizations. When negotiations are conducted in an adversarial, arms-length posture, they are likely to focus on whether and how soon new mandates can be put into place, and how stringent they will be. In other words, the desired end is defined in terms of regulatory requirements, largely precluding creative thinking on the part of business or other participants. Approaching negotiation more broadly (e.g., looking for the best solution to the underlying environmental problem) and more collaboratively may allow better use of the expertise of the parties involved. Less adversarial strategies thus seem appealing as a way of achieving better results more quickly.⁷⁶

II. THE EMERGENCE OF THE ALTERNATIVE MODEL

All of the factors discussed above have led environmental agencies to search for an alternative model of environmental protection in which the roles of the participants—governments, businesses, communities, and individuals—are markedly altered. In many respects, the core elements of the alternative model have been in existence almost as long as the standard model itself, but efforts to put them into action have been particularly vigorous over the past ten to fifteen years.

A. *Key Features of the Alternative Model*

The alternative model differs from the standard model in many ways, but a few are particularly central.

1. Focus on Results

Perhaps the bedrock principle of the “alternative” model is a focus on results rather than implementation of statutory prescriptions.⁷⁷ Within

⁷⁵ See, e.g., *id.* at 1070, 1084-85 (citing several authorities that discuss “ossification”).

⁷⁶ See Fiorino, *Flexibility*, *supra* note 23, at 399.

⁷⁷ Robert F. Durant, Daniel J. Fiorino & Rosemary O’Leary, *Introduction* to ENVIRONMENTAL

agencies, this may be the most visible transformation to date. At least in theory, programs are responsible not simply for carrying out assigned tasks, but for pursuing environmental goals.⁷⁸ A results-focused approach does not inherently reject traditional methods but opens the door for consideration of more innovative alternatives.⁷⁹ It also shifts thinking from a focus on compliance and harm prevention to looking at the potential for continuous improvement.⁸⁰

It is interesting to look at how a results-driven model differs from a legally-driven one. In legal analysis, the term “results-oriented” has negative overtones; it suggests a willingness to neglect important principles in pursuit of the “right” outcome. In alternative-model thinking, a focus on results is benign, putting importance not just on how many outputs a program achieves (e.g., number of permits written or enforcement cases brought), but on what it accomplishes in larger terms.⁸¹ However, it can become a matter of concern for standard-model proponents, who see it as masking a reduced commitment to aggressive environmental protection.⁸² For example, providing compliance assistance may improve the overall performance of some industry sectors, but critics might see a slackening in enforcement as sending the wrong message.

2. Continuous Improvement, Not Compliance, Is the Goal

Given the emphasis on environmental results, conformity to regulation is less central than in the standard model. Legal requirements are an important benchmark and reference point, but no longer define the desired outcome.⁸³ Many other practices not mandated by regulation con-

GOVERNANCE RECONSIDERED, *supra* note 7, at 1, 2-3 (discussing an approach “that focuses on building a *results-based* (or outcomes-based) sense of common purpose”); RESOLVING THE PARADOX, *supra* note 7, at 1 (noting “increased emphasis on performance, on achieving measurable environmental results”); Western Governors’ Association, Enlibra, <http://www.westgov.org/wga/initiatives/enlibra/default.htm> (last visited Dec. 1, 2006) (identifying eight “Enlibra Principles,” one of which is to “Reward Results, Not Programs”).

⁷⁸ For example, EPA’s strategic plan requires agency activities to be linked to five major goals, framed primarily in terms of environmental outcomes. See U.S. ENVTL. PROT. AGENCY, EPA 2006-2011 STRATEGIC PLAN: CHARTING OUR COURSE 1 (2006) (draft for public review), available at <http://www.epa.gov/cfo/plan/06draftarch.htm>.

⁷⁹ See RESOLVING THE PARADOX, *supra* note 7, at 1.

⁸⁰ See *id.*

⁸¹ See Durant, Fiorino & O’Leary, *Introduction*, *supra* note 77, at 23 n.3.

⁸² See, e.g., Rena I. Steinzor, *Myths of the Reinvented State*, 29 Cap. U. L. Rev. 223, 233, 236 (2001) [hereinafter Steinzor, *Myths*] (questioning the shift of focus to results).

⁸³ See RESOLVING THE PARADOX, *supra* note 7, at 1.

tribute to the larger goal of improved performance.⁸⁴ Furthermore, in the alternative model goals are not static; continuous improvement, rather than simply attainment, is the aim.⁸⁵

Under this approach, attention is given not only to how an organization's performance stands relative to legal norms, but also to how it compares with others and to what its direction is over time.⁸⁶ While agencies usually insist on compliance as a starting point, there is wide recognition that absolute compliance may be impossible, especially for companies subject to many complex requirements.⁸⁷ At the same time, compliance alone does not define good performance; a true measure of leadership may also take into account the overall quality of environmental management or accomplishments in non-mandated but environmentally important pollution prevention practices.

3. Regulations May Be Negotiable

Given the reduced emphasis on law as the definition of desirable behavior, regulations may serve not as the goal to be achieved, but as the starting point for negotiating other superior arrangements, for example, where an organization can achieve or exceed the regulatory goal more cheaply.⁸⁸ A less controversial variation may be to redesign rules to reflect the varying circumstances in which they are applied. For example, rules may be tailored to be less prescriptive for companies that have demonstrated sustained superior performance.

⁸⁴ See, e.g., *id.* at 5 (citing NAT'L ACAD. OF PUB. ADMIN., SETTING PRIORITIES, GETTING RESULTS (1995)) (recommending "legislation encouraging firms to go beyond mere compliance").

⁸⁵ See *id.* at 1.

⁸⁶ *Id.*

⁸⁷ J.B. Ruhl & James Salzman, *Mozart and the Red Queen: The Problem of Regulatory Accretion in the Administrative State*, 91 GEO. L.J. 757, 767 (2003); Orts, *supra* note 27, at 1240.

⁸⁸ Professor Farber has described this as a form of "slippage," not in the sense of backsliding from established standards, but as a form of "positive slippage" to achieve better results than would result from inefficient rules. Daniel A. Farber, *Taking Slippage Seriously: Noncompliance and Creative Compliance in Environmental Law*, 23 HARV. ENVTL. L. REV. 297, 305-11 (1999) [hereinafter Farber, *Taking Slippage Seriously*]. See Daniel A. Farber, *Triangulating the Future of Reinvention: Three Emerging Models of Environmental Protection*, 2000 U. ILL. L. REV. 61, 77 (2000) [hereinafter Farber, *Triangulating the Future*] ("... it is not difficult to imagine negotiation emerging as the dominant form of environmental protection."); see also E. Donald Elliott, *Toward Ecological Law and Policy*, in THINKING ECOLOGICALLY, *supra* note 4, at 170, 183 (suggesting replacement of "command and control" with "command and covenant").

4. Relationships Are More Collaborative

Collaboration is a recurring theme in discussions of second-generation environmental policy.⁸⁹ Collaboration is a very broad concept that can take many forms.⁹⁰ At one end of the spectrum, it may be an extension of familiar rights to public participation in agency decisions.⁹¹ For example, stakeholder advisory groups may be involved in the development of regulations well in advance of formal public notice of a proposed rule.⁹² Extra efforts may be made to publicize hearings on local permitting or cleanup decisions, or to provide information to the public in advance of those hearings.⁹³ However, collaboration can extend to situations in which the environmental agency is not the sole or even primary decision-maker, as in negotiations over complex issues affecting a broad geographic area such as the Great Lakes.⁹⁴ It can also take the form of partnerships between government agencies and individual firms or industries, or negotiations aimed at developing superior, tailored local solutions for a particular facility or community.⁹⁵

5. Multiple Centers of Leadership

In the standard model, direction-giving flows from the government to regulated organizations, whose principal role is to understand and comply with applicable regulations. As the emphasis on collabor-

⁸⁹ See Farber, *Triangulating the Future*, *supra* note 88, at 72-79; Thompson, *supra* note 3, at xiii. “Collaboration” was highlighted as one of the Western Governors’ Association’s “Enlibra Principles.” Western Governors’ Association, *supra* note 77.

⁹⁰ See INT’L ASS’N FOR PUB. PARTICIPATION, IAP2 PUBLIC PARTICIPATION SPECTRUM, available at <http://www.iap2.org/associations/4748/files/spectrum/pdf> (describing a range of ways in which agencies may involve the public, from informing to empowering).

⁹¹ Public Involvement Policy, 68 Fed. Reg. 33,946 (June 6, 2003).

⁹² See *id.* at 33,948 (encouraging that public involvement be especially considered in significant rulemaking). For more on formal regulatory negotiation processes, see Laura I. Langbein & Cornelius M. Kerwin, *Regulatory Negotiation versus Conventional Rule Making: Claims, Counterclaims and Empirical Evidence*, 10 J. OF PUB. ADMIN. RES. & THEORY 599 (2000); see also Daniel J. Fiorino, *Regulatory Negotiation as a Policy Process*, 48 PUB. ADMIN. REV. 764 (1988) [hereinafter Fiorino, *Regulatory Negotiation*].

⁹³ See Public Involvement Policy, 68 Fed. Reg. at 33,948.

⁹⁴ See Exec. Order No. 13,340, 3 C.F.R. 586 (2004-2005) (establishing the “Great Lakes Interagency Task Force”).

⁹⁵ See *id.*; Timothy J. Mohin, *The Alternative Compliance Model: A Bridge to the Future of Environmental Management*, 27 *Envtl. L. Rep.* (Envtl. Law Inst.) 10,345, at 10,352-53 (1997).

ation suggests, the alternative model recognizes multiple centers of leadership: government, business, communities, and others.⁹⁶ Environmental agencies still play the largest single role,⁹⁷ but in particular instances initiative may flow from others, including the regulated community.⁹⁸ As a result, the “environmental protection system” is a web of actors producing a joint output.

In particular, in the alternative model we may find government performing functions that seem more suited for business (e.g., designing and promoting pollution prevention techniques that also save money or have other business advantages). At the same time, business may play a more directive, quasi-governmental role, such as establishing industry standards for environmental management systems, or showing leadership in developing innovative solutions to longstanding environmental problems.⁹⁹

B. *Critiques of the Alternative Model*

Just as regulation has shortcomings, alternative-model strategies have limitations as well. They have received serious criticism primarily, but not exclusively, from environmental groups and their allies in academia.¹⁰⁰ Those who were involved in establishing the current system believe that there is little here that they have not heard before; cries for greater flexibility have been made throughout the history of environmental regulation.¹⁰¹ Critics of alternative-model strategies are skeptical about the likelihood that regulated organizations will be motivated to provide environmental benefits, at least beyond the point where, at the margin, costs exceed benefits to the firm.¹⁰² While these critics welcome environmen-

⁹⁶ See Mohin, *supra* note 95, at 10,355.

⁹⁷ See *id.* at 10,354.

⁹⁸ See *id.* at 10,355.

⁹⁹ See *infra* notes 146-55 and accompanying text (describing business-created standards for environmental management systems); see also *supra* note 69 (highlighting corporate commitments to reduce greenhouse gas emissions, promote sustainability, and reduce energy use).

¹⁰⁰ See, e.g., DAVID M. DRIESEN, *THE ECONOMIC DYNAMICS OF ENVIRONMENTAL LAW* (2003); Case, *The EPA's Environmental Stewardship Initiative*, *supra* note 1, at 9-11 (describing skepticism of the alternative model); Steinzor, *Myths*, *supra* note 82, at 238; Steinzor, *Reinventing Environmental Regulation*, *supra* note 3, at 163.

¹⁰¹ See Fiorino, *Flexibility*, *supra* note 23, at 399-401.

¹⁰² See DRIESEN, *supra* note 100, at 99-100 (arguing that the market creates incentive to avoid wasting materials, but not to implement “environmental innovations” where there is a net cost to avoiding waste). *But see* Farber, *Triangulating the Future*, *supra* note 88, at 71 (summarizing this viewpoint and critiquing it).

tal leadership, they see it as exceptional and unreliable—subject to change when competitive pressures become too intense—and “beyond the capacity of government to . . . produce.”¹⁰³ They also see good behavior as having largely resulted from the pressure that regulation and community organization have created.¹⁰⁴ There is evidence, for example, that vigorous regulatory enforcement can encourage “beyond compliance” behavior.¹⁰⁵

These critics recognize that regulated organizations may have business reasons for taking environmentally desirable actions, but argue that it is not necessary or appropriate to make regulatory concessions to obtain such benefits. From this perspective, if regulatory flexibility is to be provided, it should only be to obtain outcomes beyond what regulated organizations would otherwise do in their own self-interest. Critics of flexibility question the frequency of regulatory barriers to environmental benefits, and the extent to which they actually deter desirable behavior.¹⁰⁶ They note that most regulatory standards do not specify how the standards must be attained,¹⁰⁷ and point out that a good deal of pollution prevention and recycling already occurs within the regulatory system.¹⁰⁸

Critics of the alternative model are also skeptical of claims that rules should be more “performance-based” to allow regulated organizations to design their own strategies for achieving environmental goals.¹⁰⁹ First, they doubt that the scientific knowledge necessary to supersede “technology-based” standards exists.¹¹⁰ Second, one with a less benign view of corporate motives is likely to believe performance-based regulation will

¹⁰³ See, e.g., Steinzor, *Reinventing Environmental Regulation*, *supra* note 3, at 163. Even those who demonstrate environmental leadership in some respects may, at the same time, resist other demands that they see as unduly costly, or that do not contribute in any way to their core organizational goals. See, e.g., Sandra Rothenberg, Frits K. Pil, & James Maxwell, *Lean, Green and the Quest for Superior Environmental Performance*, 10 PRODUCTION & OPERATIONS MGMT. 228, 240 (2001). Some research indicates, for example, that “lean manufacturing” practices lead organizations to be strong on pollution prevention but reluctant to pay for pollution abatement. *Id.* at 230-31.

¹⁰⁴ DRIESEN, *supra* note 100, at 26.

¹⁰⁵ See Jay P. Shimshack & Michael B. Ward, *Enforcement and Overcompliance* (Tufts University Working Paper, 2005), available at <http://www.som.yale.edu/Faculty/nok4/Files/seminar/shimshak.pdf>.

¹⁰⁶ See DRIESEN, *supra* note 100, at 185.

¹⁰⁷ See *id.* at 191 (challenging the argument that Clean Air Act permits impede potentially beneficial process changes).

¹⁰⁸ See Strasser, *supra* note 9, at 43-44 (noting that waste disposal regulation led to increased efforts to minimize waste generated).

¹⁰⁹ DRIESEN, *supra* note 100, at 50.

¹¹⁰ Steinzor, *Myths*, *supra* note 82, at 238.

most likely encourage regulated parties to come up with cheaper (and possibly inferior) ways of meeting a goal, rather than stimulating superior environmental strategies.¹¹¹ At a minimum, they demand close scrutiny to ensure that flexibility on means does not result in backsliding on ends, especially if it involves trading a certain outcome for one that is less sure, as is often the case with innovative technologies or business strategies.¹¹²

From this perspective, offering flexibility as an incentive for superior performance is also suspect. For those who see standards as insufficiently stringent to begin with, the idea of offering industry-offsetting rewards to get further gains is hard to accept. As a matter of principle, they would consider such a trade questionable: why should we give up one aspect of environmental protection to reduce some other environmentally harmful behavior? Shouldn't both simply be prohibited? From this perspective, asking for regulatory relief as a condition for committing to "beyond compliance" behavior casts doubt on the sincerity of an entity's claim to be an environmental leader. The best way to improve performance, from this viewpoint, is to ratchet up mandates on all, arguing that this should work to the advantage of those who have already gone beyond compliance.¹¹³

In short, from this perspective, any stepping back from an adversarial approach toward regulatory organizations is viewed with concern, and the underlying motivations are viewed as highly suspect. This includes skepticism about non-regulatory efforts to influence behavior such as programs that enlist companies to make voluntary commitments to environmental goals, which are seen not as benign, but as shielding industry from regulatory enforcement.¹¹⁴ While opportunities for public participation in decision-making are viewed as important in protecting citizen rights, critics are less comfortable with the extension to collaborative strategies in which they feel citizens will be at a disadvantage in

¹¹¹ David Driesen, however, supports performance-based standards, while arguing that the criticism of existing regulation as unduly prescriptive is unfounded. DRIESEN, *supra* note 100, at 49-54. An important factor is how effectively performance can be measured. If performance is unclear, agencies can be pressured to approve strategies that are cheaper only because they do not get the job done.

¹¹² See Steinzor, *Myths*, *supra* note 82, at 235-36.

¹¹³ See DRIESEN, *supra* note 100, at 197 (arguing that stringent regulation promotes technical innovation). Particularly outside the circles of technocratic experts, flexibility is often equated with a relaxation of standards resulting from industry "capture" of the regulatory agency. Fiorino, *Flexibility*, *supra* note 23, at 397.

¹¹⁴ Press Release, Eric Schaeffer, Environmental Integrity Project, EPA "Honor System" Leads to More Pollution at 10 Out of 13 Industrial Sites Getting Less Oversight (Feb. 8, 1996), available at <http://www.environmentalintegrity.org/pub360.cfm>.

terms of resources and expertise, and may be pressured to give up claims they might otherwise assert.¹¹⁵ From this perspective, it is the government's job to be an active watchdog on behalf of citizens, not an ostensibly neutral "facilitator" on an inherently uneven playing field.

There is also skepticism about the alternative model within the agencies. Although agency leaders have repeatedly endorsed strategies such as collaboration and partnership rather than legal processes to develop superior solutions, many agency staff remain doubtful. One barrier is that the alternative model does not square well with the constitutional and legal framework in which agency staff work. The legal model is top-down, giving direction through legislation which is then carried out by agencies. The alternative model is more often bottom-up, or at least allows for more than one source of direction and leadership.¹¹⁶

Past experience is also a factor. A long history of industry opposition to environmental initiatives has not bred confidence. Enforcement staff, who have the greatest experience in an adversarial setting, are particularly mistrustful of strategies that rely on business to maintain high standards with limited oversight. Similarly, regulatory staff are often skeptical of the effectiveness of "softer" strategies such as partnership programs which do not compel action but seek to induce it through information, publicity and general encouragement. To date, it has proven difficult to integrate strategies: programs promoting sustainability, stewardship or pollution prevention remain largely separate from regulatory programs, creating two cultures between which there is much conflict.

Regulatory staff also may consider alternative strategies simply irrelevant to their work. Most agency jobs are defined by the tools available to them. If regulatory instruments do not lend themselves to advancing goals such as sustainability or pollution prevention, regulatory staff will not have much interest in those goals.

Although the alternative model is often criticized as unduly favoring industry, some in the business world have voiced skepticism as well. Many in the business world are wary of partnerships with government, anticipating burdens that will outweigh any benefits to them.¹¹⁷ Even those

¹¹⁵ See David Dana, *The New "Contractarian" Paradigm in Environmental Regulation*, 2000 U. ILL. L. REV. 35, 51-59 (2000); Jody Freeman, *Collaborative Governance in the Administrative State*, 45 UCLA L. REV. 1, 83-85 (1997).

¹¹⁶ See Mohin, *supra* note 95, at 10,354-55; see also White House Press Release, *supra* note 50.

¹¹⁷ See, e.g., Dennis H. Treacy, Vice President, Environmental Law and Corporate Affairs, Smithfield Foods, Inc., Address at the William & Mary Environmental Law and Policy Review Symposium: Corporate Governance and Environmental Best Practices (Feb. 4, 2006).

who are environmental leaders may fear that government intervention will drain the enthusiasm and internal commitment that makes environmental initiatives within corporations successful.¹¹⁸ Other businesses are likely to be primarily interested in making standards less stringent or, if that is not possible, lowering the cost of achieving existing standards. They view programs offering regulatory flexibility for “superior environmental performance” as a form of extortion, asking why they should be expected to do something extra in order for the government to adopt more efficient rules.¹¹⁹

A related but distinct critique comes from those who, while not necessarily favoring business interests, are doubtful in principle about the value of government intervention in the market. From this perspective, the government should try to make its rules as efficient as possible, and then minimize the administrative or transaction costs involved in carrying them out. Some regulatory innovations, such as performance-based standards and trading, may have appeal from this perspective, but voluntary programs and collaborative partnerships have the look of intrusive “big government.”

III. ALTERNATIVE-MODEL STRATEGIES

By now, the alternative model has been put into practice for long enough that we can identify the leading strategies that are used by its practitioners. This section provides an overview of those strategies. The topics in this section have been discussed at great length elsewhere; accordingly, this Article will provide just enough information to introduce each topic, while providing essential references. Readers who are familiar with the literature on “alternative model” policies may choose to skip to Part IV.¹²⁰

A. *Regulatory Innovation*

Part of the alternative model involves innovative approaches to regulation. This has taken a variety of forms.

¹¹⁸ *Id.*

¹¹⁹ Mohin, *supra* note 95, at 10,353 (noting concern about “[g]reenmail”).

¹²⁰ A very similar listing of strategies can be found, for example, in RESOLVING THE PARADOX, *supra* note 7, at 9.

1. Performance-Based Regulation and Trading

It is often argued that regulated organizations should be allowed to find better ways of achieving specific environmental goals, rather than being bound by “command and control” regulation.¹²¹ Flexibility of this kind (usually referred to as “performance-based regulation”) can be provided in two ways: first, by setting broad (usually numeric) performance goals rather than specifying particular practices; second, by creating variance procedures that allow alternative approaches to be adopted on a case by case basis.¹²²

Closely related to performance-based regulation is emissions trading, which sets a total limit on emissions of a particular pollutant, assigns entitlements and allows the market to determine where and by whom (and to some extent when) the limit will be reached.¹²³ The difference between the two is that trading operates on a larger scale, setting targets at a national or regional scale rather than within a facility.

It is common to view these strategies chiefly as a means of reducing compliance costs. The most obvious consequence of allowing a regulated organization to choose the means of attaining a particular goal is that it may find cheaper ways of doing so than regulations otherwise would require. To the extent that the change is simply to a differently-framed set of enforceable rules (redesigned to avoid being overly prescriptive), the result is still close to the standard model, still emphasizing compliance rather than continuous improvement.

However, alternative-model proponents contend that these approaches could also lead to environmental benefits. First, if a truly innovative approach is developed, it is likely that the new strategy will be both cheaper and more effective; rarely would it be possible to calibrate so finely as to achieve exactly the same environmental result at lower

¹²¹ See RESOLVING THE PARADOX, *supra* note 7, at 2.

¹²² To some extent, flexibility of this kind is already available through waivers that permit regulated organizations to demonstrate alternative modes of compliance. *See, e.g.*, 40 C.F.R. § 761.65(e) (2005) (allowing demonstration of alternative method of destroying PCBs); Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. §§ 9601-9675 (2000). CERCLA allows waiver of requirements for Superfund cleanups based on showing that an alternative plan achieves equivalent results. *Id.* § 9621(d)(4).

¹²³ An extensive literature exists on trading. *See, e.g.*, DRIESEN, *supra* note 100, at 59-68; RESOLVING THE PARADOX, *supra* note 7, at 25-27; Robert N. Stavins, *Market-Based Environmental Policies*, in PUBLIC POLICIES FOR ENVIRONMENTAL PROTECTION 31 (Paul R. Portney & Robert N. Stavins eds., 2000); David M. Driesen, *Does Emissions Trading Encourage Innovation?*, 33 *Envtl. L. Rep.* (Envtl. Law Inst.) 10,094 (2003).

cost. Second, those seeking waivers may err on the side of better results in order to overcome uncertainties that might stand in the way of obtaining approval for the substitution. Third, it may change the culture of regulated organizations in a desirable way if they are invited to think about new ways of solving the environmental problem at hand rather than simply to read and comply with the regulations. Finally, and most fundamentally, over the long term, if we allow firms to find cheaper ways to achieve environmental goals, we may be able to set goals that are more ambitious and reach them sooner.¹²⁴

2. Removing Regulatory Barriers

Another commonly-proposed “alternative model” regulatory strategy is removing requirements that act as inadvertent barriers to practices that are environmentally desirable. It is rare for such practices to be prohibited, but regulatory structures can be limiting for those organizations that proactively pursue creative solutions to environmental problems (e.g., adopting a new technology that is more environmentally-friendly, but would trigger a permit change that is expensive and time-consuming).¹²⁵

3. Creating Incentives

A third strategy often proposed is to offer regulatory flexibility as an incentive for superior performance. In contrast to strategies that remove barriers, this line of thinking focuses on stimulating desired behaviors

¹²⁴ Perhaps the prime example of this effect is the trading scheme established in the 1990 Clean Air Act amendments for reducing emissions that cause acid rain; because that approach was used, industry agreed to a more ambitious target than could otherwise have been attained. See Burtraw & Palmer, *supra* note 36, at 44.

¹²⁵ See E. Donald Elliott & Mohamed Tarifi, *Integrating Sustainable Development Into U.S. Law and Business*, 33 *Envtl. L. Rep. (Envtl. Law Inst.)* 10,170, at 10,176 (2003); Hirsch, *Lean and Green?*, *supra* note 46, at 637; Michele Ochsner, *Pollution Prevention: An Overview of Regulatory Incentives and Barriers*, 6 *N.Y.U. ENVTL. L.J.* 586, 592-93 (1998). For further detail on the effect of air permits, see *infra* notes 271-73 and accompanying text. Another example sometimes cited is the potential deterrent effect of hazardous waste regulations on recycling. See Elliott & Tarifi, *supra* at 10,176. On one hand, hazardous waste rules have made waste management and disposal much more costly, creating an incentive to reduce the amount of waste generated and to find alternatives to disposal. On the other hand, the burden associated with handling materials labeled as “hazardous waste” has discouraged some potential recyclers from accepting material, resulting in it being sent to a landfill. See *id.* Therefore, some argue for exempting recyclable materials from the definition of hazardous waste.

beyond those that organizations would choose to undertake for their own internal reasons. A wide range of incentives have been proposed at one time or another, such as:

- Reducing the frequency of inspection for firms with good compliance records;¹²⁶
- Expediting permit approval for top performers;¹²⁷
- Offering top performers less prescriptive or less stringent requirements;¹²⁸
- Reducing monitoring requirements for firms whose discharges are consistently well below permit limits.¹²⁹

Incentives are often described as a “trade” of regulatory relief in exchange for some desirable action on the part of the regulated organization. However, this is not necessarily the case; for example, reducing enforcement oversight of firms that have consistently strong compliance records may be a rational reallocation of limited inspection resources.

4. Tailoring Regulation

Still another strategy often proposed is to “tailor” regulation to account for differences in regulated organizations. This is not an entirely innovative technique; regulations have always distinguished, for example, between large and small sources. However, alternative-model strategies take this concept further.¹³⁰ Similarly, some have suggested that firms with strong environmental management systems might receive different

¹²⁶ For example, members of EPA’s Performance Track program receive reduced inspection priority. Environmental Protection Agency, Low Priority for Routine Inspections, <http://www.epa.gov/performance-track/benefits/routineinspect.htm> (last visited Dec. 1, 2006).

¹²⁷ GLOBAL ENVTL. MGMT. INITIATIVE, ENVIRONMENTAL IMPROVEMENT THROUGH BUSINESS INCENTIVES 9 (1999), available at http://www.gemi.org/IDE_004.pdf.

¹²⁸ See *id.* at 10.

¹²⁹ For example, Indiana’s Environmental Stewardship Program offers as one incentive the ability to submit information annually rather than monthly. Indiana Department of Environmental Management, Environmental Stewardship Program: Incentives, <http://www.in.gov/idem/prevention/esp/incentives.html> (last visited Dec. 1, 2006).

¹³⁰ One example is of this is a Project XL proposal designing alternative hazardous waste regulations for university or hospital laboratories. See Environmental Protection Agency, Project XL: New England Universities Laboratories, <http://www.epa.gov/projectxl/nelabs/> (last visited Dec. 1, 2006).

regulatory treatment than those who simply do the minimum necessary to avoid being caught out of compliance.¹³¹

The line between tailored regulation and incentives is sometimes unclear. Creating less stringent regulations for good performers, for example, is often described as an “incentive” for good behavior. However, tailoring regulation is not a quid pro quo in which something is “given up” by the agency to get something else in return. Instead, it is a matter of designing regulations to fit particular circumstances, and recognizing that circumstances may vary significantly among firms.

5. Sector-Based Regulation

Another innovative model allows industry sectors to develop their own plans for improving performance as an alternative to having more stringent regulations imposed upon them. Most notably tried in the Netherlands using industry-wide “covenants,”¹³² this strategy has not been used in the United States in an enforceable form, although some efforts have been made to establish agreed-upon targets that industry can voluntarily seek to attain. Like performance-based regulation, sector-based regulation focuses on broad goals while using the superior expertise of the regulated industry to achieve those goals most effectively.¹³³

6. Multimedia Strategies

Many innovative regulatory strategies address problems on a holistic, multimedia basis rather than focusing on air, water, or land. Multimedia approaches are not inherently more flexible or performance-oriented; they are associated with alternative-model thinking because the existing legal structure is primarily defined by environmental medium.¹³⁴ Multi

¹³¹ See Cary Coglianese, *Policies to Promote Systematic Environmental Management*, in REGULATING FROM THE INSIDE, *supra* note 1, at 181, 187.

¹³² See TERRY DAVIES ET AL., RESOURCES FOR THE FUTURE, RFF REPORT: REFORMING PERMITTING 52-57 (2001) (describing the Dutch “covenant” system).

¹³³ A major effort in the Clinton administration, called the Common Sense Initiative (“CSI”), examined alternative regulatory strategies for entire business sectors. Case, *The EPA’s Environmental Stewardship Initiative*, *supra* note 1, at 41-43 (describing history of CSI). The CSI was ended in 1998, but a similar effort on a smaller scale is ongoing. *Id.* at 43. See RESOLVING THE PARADOX, *supra* note 7, at 17-19; Environmental Protection Agency, Sector Strategies Program, <http://www.epa.gov/sectors> (last visited Dec. 1, 2006) (describing EPA’s current “sector strategies” program).

¹³⁴ See Bradford C. Mank, *The Environmental Protection Agency’s Project XL and Other*

media strategies tend to focus on problems and then look for the tools to solve them (either regulatory or non-regulatory) rather than defining goals in terms of the legal regime.¹³⁵ Multimedia approaches are also seen as more likely to lead to pollution prevention, whereas a single-medium approach tends to emphasize end-of-pipe controls.¹³⁶

Formal multimedia regulatory strategies have been infrequent in the United States because they are difficult to implement within our medium-based legal framework. New Jersey experimented with multimedia permitting in the 1990s, but the program has been terminated.¹³⁷ A more successful program adopted by Massachusetts in the mid-1990s for regulating small sources, such as drycleaners, has been endorsed by EPA and is being adopted in a growing number of states.¹³⁸ However, the most ambitious integrated regulatory systems are overseas, especially in the European Union, which has directed its member states to move to “integrated” permits.¹³⁹

Another kind of multimedia effort involves geographically-focused responses to environmental problems.¹⁴⁰ These do not change the regulatory structure itself, but use regulatory and non-regulatory strategies that cross media lines. For example, environmental harms to the Chesapeake Bay come from a wide variety of sources: discharges by sewage treatment plants, runoff from farms, emissions from power plants (often very

Regulatory Reform Initiatives: The Need for Legislative Authorization, 25 *ECOLOGY L.Q.* 1, 6-7 (1998).

¹³⁵ See *id.* at 7-10.

¹³⁶ *Id.* at 8.

¹³⁷ See ENVIRONMENT.GOV, *supra* note 9, at 53-56 (assessing results of New Jersey’s multimedia permitting program); DAVIES ET AL., *supra* note 132, at 75-78. The program was not continued, but was folded into a “leadership” program referred to as “Gold Track,” which was itself terminated when the commissioner changed. ENVIRONMENT.GOV, *supra* note 9, at 55-56; Profile, *The Integrator*, ENVTL. F., July-Aug. 2002, at 44, 47.

¹³⁸ Referred to as the Environmental Results Program (“ERP”), this model has now attracted interest from over a dozen states. See ENVIRONMENT.GOV, *supra* note 9, at 34-39 (describing EPA’s initially cautious response to ERP); Environmental Protection Agency, States Implementing ERP, <http://www.epa.gov/permits/erp/states.htm> (last visited Dec. 1, 2006). EPA now supports wider use of the approach. See generally Environmental Protection Agency, Environmental Results Program, <http://www.epa.gov/permits/erp/index.htm> (last visited Dec. 1, 2006).

¹³⁹ DAVIES ET AL., *supra* note 132, at 71-75. See EUROPA, The IPPC Directive, <http://ec.europa.eu/environment/ipcc/index.htm> (last visited Dec. 1, 2006).

¹⁴⁰ See generally Environmental Protection Agency, Programs With a Geographic Focus, <http://www.epa.gov/epahome/places.htm> (last visited Dec. 1, 2006) (providing hyperlinks to several geographically-focused environmental programs).

far away), overfishing, and even automobile emissions.¹⁴¹ Accordingly, the response effort goes far beyond any single regulatory regime. Furthermore, solutions typically require a collaborative effort involving multiple jurisdictions and multiple levels of government, as well as a variety of businesses and other partners.

B. Non-Regulatory Strategies

Regulatory innovation is only a part of the alternative model. Equally if not more important are quasi- or non-regulatory strategies that aim to achieve benefits beyond what rules would require.

1. Compliance Assistance

The standard model assumes that regulated firms will seek to avoid compliance if they can get away with it, and that government's role in ensuring compliance is to find and punish noncompliance.¹⁴² Most agencies now believe, however, that while some firms choose not to comply, others may be willing to comply, but fail because they do not know how. Small businesses, for example, are likely to have a hard time keeping track of regulatory requirements. Even large businesses claim to find compliance difficult simply because of the complexity of environmental rules; it is widely believed that any large industrial facility is likely to have violations from time to time, even if it is making a concerted effort to stay within the rules.¹⁴³ In recognition of this, agencies have increasingly set up compliance assistance programs, which provide information about regulatory requirements and even onsite assistance.¹⁴⁴

¹⁴¹ See Chesapeake Bay Program, Bay Pollutants, <http://www.chesapeakebay.net/stressor1.htm> (last visited Dec. 1, 2006).

¹⁴² See *supra* Part I.A.

¹⁴³ Ruhl & Salzman, *supra* note 87, at 766-67. See Orts, *supra* note 27, at 1240.

¹⁴⁴ See Environmental Protection Agency, Compliance Assistance, <http://www.epa.gov/compliance/assistance/index.htm> (last visited Dec. 1, 2006) (describing EPA compliance assistance programs); Maryland Department of Environment, Business Information Center, <http://www.mde.state.md.us/BusinessInfoCenter/index.asp> (last visited Dec. 1, 2006) (describing Maryland's assistance program). The ERP integrates assistance into a regulatory "self-certification" requirement which increases the likelihood that compliance tools will be utilized, and uses random inspections to monitor overall compliance patterns and generate information on business performance. Environmental Protection Agency, What is ERP?, <http://www.epa.gov/permits/erp/what.htm> (last visited Dec. 1, 2006). See *supra* note 138 and accompanying text.

2. Self-Audits and Audit Policies

On the business side of the equation, it is increasingly common to develop active internal procedures for monitoring compliance, minimizing the risk of violations and fixing them when they do occur. The motivation for doing so may be pure standard-model self-interest in avoiding penalties or other sanctions. Nevertheless, these practices are a step toward a model in which business does more than simply take direction and do the minimum necessary.

EPA and many state agencies encourage self-auditing through policies or laws that reduce or eliminate penalties where a company finds a violation on its own, reports it, and corrects it in a reasonable length of time.¹⁴⁵ These policies seek both to encourage self-audits, and to allow the agencies to redirect their efforts toward more recalcitrant companies.

3. Environmental Management Systems

A growing number of firms have gone beyond self-policing to adopting full-blown environmental management systems (“EMS”).¹⁴⁶ The expected elements of an EMS are so well-established that an international standard was adopted in 1996,¹⁴⁷ against which systems can be audited to ensure that they contain the essential components of a “plan-do-check-

¹⁴⁵ See, e.g., Incentives for Self-Policing: Discovery, Disclosure, Correction, and Prevention of Violations, 65 Fed. Reg. 19,618 (Apr. 11, 2000). For examples of typical state laws, see MICH. COMP. LAWS §§ 324.14801-02 (1997); Colorado Department of Public Health and Environment, Environmental Audit Privilege and Immunity Law, http://www.cdphe.state.co.us/ek/cross_media/selfaudit/audithom.html (last visited Dec. 1, 2006) (explaining the “penalty immunity component” of the Colorado environmental audit law codified in COLO. REV. STAT. §§ 25-1-114.5 to -114.6 (1999)); see also Environmental Protection Agency, State Audit Privilege and Immunity Laws & Self-Disclosure Laws and Policies, <http://www.epa.gov/cgi-bin/epaprintonly.cgi> (last visited Dec. 1, 2006).

¹⁴⁶ See Christopher L. Bell, *Environmental Management Systems and Environmental Law*, in ENVIRONMENTAL LAW HANDBOOK 859 (Thomas F. P. Sullivan ed., 18th ed. 2005) [hereinafter Bell, *Environmental Management Systems*]; Case, *The EPA’s Environmental Stewardship Initiative*, *supra* note 1, at 69-75; Cary Coglianese & Jennifer Nash, *Environmental Management Systems and the New Policy Agenda*, in REGULATING FROM THE INSIDE, *supra* note 1, at 1, 1-4 [hereinafter Coglianese & Nash, *Environmental Management Systems*].

¹⁴⁷ This international EMS standard was published by the International Organization for Standardization (“ISO”) as ISO 14001. Christopher L. Bell, *ISO 14001: Application of International Environmental Management Systems Standards in the United States*, 27 *Env’tl. L. Rep. (Env’tl. Law Inst.)* 10,678, at 10,678 (1997) [hereinafter Bell, *ISO 14001: Application*].

act” system.¹⁴⁸ A full explanation of EMSs is far beyond the scope of this Article, but a good EMS involves establishing an environmental policy, identifying environmental aspects of concern, defining what needs to be done to address these aspects (e.g., how to comply with relevant laws), creating systems to carry out those steps, monitoring on a regular basis, and fixing any problems that arise.¹⁴⁹ Correcting problems may require redesigning the system itself, where necessary, to reduce the risk of future problems.¹⁵⁰

The emergence of EMSs is one of the more remarkable developments of recent years in that it occurred almost entirely at the initiative of business, rather than through government regulation.¹⁵¹ This does not mean that business has become altruistic; EMSs responded to the recognition that potential liabilities associated with environmental issues¹⁵² are extremely diverse, complex, and financially significant, calling for a more comprehensive response than simply monitoring regulatory compliance.¹⁵³ This shift from reactive to proactive mode can change the role of the business to one of anticipating and preventing problems that have not yet been identified,¹⁵⁴ a clear departure from the standard model. An EMS also encourages integrated, holistic thinking about environmental strategies.¹⁵⁵ Individual firms may vary in the extent to which they become leaders, and the shift in thinking does not eliminate underlying conflicts between their business goals and environmental concerns. However, it can result in an internally-driven effort to find ways of addressing those conflicts that are cheaper or more effective.

¹⁴⁸ TOM TIBOR & IRA FELDMAN, *ISO 14000: A GUIDE TO THE NEW ENVIRONMENTAL MANAGEMENT STANDARDS* (1996). See Christopher L. Bell, *The ISO 14001 Environmental Management Systems Standard: A Modest Perspective*, 27 *Envtl. L. Rep.* (Envtl. Law Inst.) 10,622, at 10,630-33 (1997); Bell, *ISO 14001: Application*, *supra* note 147, at 10,680-82.

¹⁴⁹ Bell, *ISO 14001: Application*, *supra* note 147, at 10,680-82.

¹⁵⁰ *Id.* at 10,681-82.

¹⁵¹ EPA has made clear that it does not intend to mandate the adoption of EMSs. Position Statement on Environmental Management Systems (EMSs), 71 *Fed. Reg.* 5664, 5665 (Feb. 2, 2006) (“EPA will promote the voluntary adoption of EMSs . . . [and] will rely on public education and voluntary programs.”); U.S. ENVTL. PROT. AGENCY, *EPA’S STRATEGY FOR DETERMINING THE ROLE OF ENVIRONMENTAL MANAGEMENT SYSTEMS IN REGULATORY PROGRAMS* (2004) [hereinafter *EPA EMS STRATEGY*] (“EPA wishes to make clear that it has no intention of mandating the use of EMSs in rules and permits.”).

¹⁵² These include not only sanctions for regulatory violations, but also civil tort liability and the less tangible effects of community or NGO opposition.

¹⁵³ Bell, *ISO 14001: Application*, *supra* note 147, at 10,680.

¹⁵⁴ *Id.* at 10,680-82.

¹⁵⁵ See *id.* at 10,680.

4. Pollution Prevention

It has been recognized for many years that controlling pollution is less desirable in the long run than finding ways to prevent it, either by reusing waste materials or by changing processes, products, or behaviors to avoid creating environmental risks in the first place.¹⁵⁶ Many believe that these more fundamental strategies will ultimately achieve greater environmental gains with less economic dislocation than “first-generation” controls.¹⁵⁷

Pollution prevention is not inherently incompatible with the standard model; however, it tends to be associated with the alternative model because it is difficult to mandate. As noted earlier,¹⁵⁸ innovations such as redesigning products, or inventing new ways of making products, or choosing a cleaner energy source, or finding a way to reuse formerly discarded materials, are generally too complex to impose through uniform legal requirements. Furthermore, these approaches depend heavily on intimate knowledge of particular production processes, which is generally beyond the capacity of government agencies. Therefore, agencies generally promote pollution prevention through technical assistance programs. In some cases, firms have been required to undertake pollution prevention reviews, the content and implementation of which is left to their control. The theory is that they are in the best position to find new solutions, and that, at least where the solutions involve net savings to the company, it will choose to put them into practice.¹⁵⁹

5. Voluntary Partnership Programs

To encourage desirable behavior without regulation, agencies have increasingly turned to non-regulatory “partnership programs.”¹⁶⁰ From

¹⁵⁶ For a brief history of the emergence of pollution prevention as a strategy, see Geiser, *supra* note 61, at 430; *see also* Strasser, *supra* note 9, at 50 (describing the evolution of pollution prevention initiatives at EPA from the first Bush administration to the Clinton administration).

¹⁵⁷ *See* Geiser, *supra* note 61, at 430-31; *see also* Strasser, *supra* note 9, at 103.

¹⁵⁸ *See supra* Part I.B.

¹⁵⁹ *See* Lori D. Snyder, *Are Management-Based Programs Effective? Evidence from State Pollution Prevention Programs* (Reg. Pol’y Program, Center for Bus. & Gov’t, John F. Kennedy School of Gov’t, Harv. U., Working Paper No. RPP-2003-21, 2003), *available at* <http://www.ksg.harvard.edu/m-rcbg/research/rpp/RPP-2003-21.pdf> (finding that pollution prevention planning requirements correlate with pollution reduction).

¹⁶⁰ As used here, the term “voluntary program” refers to government-led programs that

a few early cases such as EPA's "33/50" program,¹⁶¹ these programs have proliferated to the point where EPA alone has over one hundred.¹⁶² The goals of these programs and the strategies they use to try to encourage better behavior vary tremendously; some offer recognition, others share information, still others rely on product labeling (e.g., designating energy-efficient electronics or buildings).¹⁶³

From a standard-model perspective, voluntary programs would seem doomed to failure. In the standard model, regulated firms know their processes, know the legal and other risks they face, and know what their business goals are; the role of the government is to ensure that they stay within bounds.¹⁶⁴ If this is true, there is little point in encouraging firms to do more than the law requires. Skeptics argue that firms likely participate in such programs simply to get recognition for actions they would take anyway, or worse yet, to be "free riders" getting credit while in fact doing little or nothing.¹⁶⁵ Some critics are even harsher, viewing such programs not merely as ineffective, but as cynically-motivated substitutes for more effective regulatory approaches.¹⁶⁶

involve no legally enforceable commitments. This definition excludes industry initiatives and government programs which involve formal agreements, both of which are sometimes included in this term. See Kathryn Harrison, *Challenges in Evaluating Voluntary Environmental Programs*, in *NEW TOOLS FOR ENVIRONMENTAL PROTECTION* 263 (Thomas Dietz & Paul C. Stern eds., 2002); Janice Mazurek, *Government-Sponsored Voluntary Measures for Firms: an Initial Survey*, in *NEW TOOLS FOR ENVIRONMENTAL PROTECTION*, *supra*, at 263, 264; Farber, *supra* note 88, at 69. Some agencies are now beginning to prefer the term "partnership" to convey a greater expectation of long-term commitment both by participants and by government.

¹⁶¹ This program invited major companies to publicly commit to major pollution reductions beyond those required by law. See Farber, *Triangulating the Future*, *supra* note 88, at 68-69.

¹⁶² See INNOVATION ACTION COUNCIL, U.S. ENVTL. PROT. AGENCY, EVERYDAY CHOICES: OPPORTUNITIES FOR ENVIRONMENTAL STEWARDSHIP 9 (2005) [hereinafter EVERYDAY CHOICES], available at <http://www.epa.gov/innovation/pdf/rpt2admin.pdf> (identifying 133 EPA partnership programs).

¹⁶³ See *id.* at 6-9 (assessing EPA stewardship programs).

¹⁶⁴ See *supra* Part I.A.

¹⁶⁵ See Harrison, *supra* note 160, at 264-65; *Introduction to Part III: Voluntary Measures in the Private Sector* of *NEW TOOLS FOR ENVIRONMENTAL PROTECTION*, *supra* note 160, at 215, 216 (noting the potential for free-riders).

¹⁶⁶ See Common Dreams News Wire, EPA Drops Voluntary Program for Lead Poisoning Prevention (June 2, 2005), <http://www.commondreams.org/news2005/0602-25.htm> (criticizing voluntary programs set up as alternatives to regulation); Nat'l Res. Def. Council, *Voluntary Efforts Won't Work: Why We Need Mandatory Limits on Carbon Dioxide*, <http://www.nrdc.org/globalwarming/fmandatory.asp> (last visited Dec. 1, 2006).

At the same time, the number of such programs continues to grow, as do the plausible explanations for the partnership approach. One is that such programs can offer a superior alternative to traditional regulation for both the regulated industry (allowing business to design cheaper ways of achieving environmental goals)¹⁶⁷ and the regulator (avoiding the high costs and long delays that any major new regulation involves). If there is a credible threat of regulation, and the results of the voluntary program can be assessed, a voluntary approach could provide the best outcome.¹⁶⁸ It is also possible for agencies to have superior information in some cases, which will change business or consumer behavior; this is the logic of product-labeling programs.¹⁶⁹ Just as compliance assistance programs target businesses that would like to stay out of trouble but do not know what the law requires, voluntary programs can help firms that want to pursue cost-saving pollution prevention strategies but lack the technical sophistication to do so. Therefore, a more complex alternative-model way of looking at voluntary programs suggests that they can be valuable. The fact that environmental groups have themselves begun using partnerships suggests that there may be merit to the view that negotiated alternatives can be mutually superior to a purely adversarial approach.¹⁷⁰

6. Collaboration

Less a specific strategy than an overarching way of doing business, an emphasis on collaboration has been a recurring theme in the past decade

¹⁶⁷ See Steinzor, *Reinventing Environmental Regulation*, *supra* note 3, at 112-13.

¹⁶⁸ See, e.g., *EPA Starts Talks with Airline Industry over Voluntary Effluent Plan*, INSIDE EPA, May 19, 2006, at 9, 9-10 (discussing EPA negotiations with industry on voluntary measures to limit effluent from aircraft deicing fluids, while deferring regulation). Another possible example involves the use of mercury in the health care industry. Since the health risks of mercury have attracted a great deal of attention, and a rule requiring mercury controls at power plants was recently adopted, members of that industry likely anticipate potential regulation as well. See Clean Air Mercury Rule, 70 Fed. Reg. 28,606 (May 18, 2005). It is probably not coincidental, therefore, that industry has worked with EPA to form a voluntary initiative to reduce mercury use in hospitals. See HOSPITALS FOR A HEALTHY ENV'T, MERCURY WASTE VIRTUAL ELIMINATION MODEL PLAN 1, available at <http://www.h2e-online.org/pubs/mercurywaste.pdf>.

¹⁶⁹ The Energy Star Program, for example, establishes benchmarks for energy efficient products, homes and buildings. See Energy Star, <http://www.energystar.gov> (last visited Dec. 1, 2006).

¹⁷⁰ See Alan Randall, *The Policy Context for Flexible, Negotiated and Voluntary Measures*, in NEW TOOLS FOR ENVIRONMENTAL PROTECTION, *supra* note 160, at 311, 316; Claudia H. Deutsch, *Companies and Critics Try Collaboration*, N.Y. TIMES, May 17, 2006, at G-1 (describing Environmental Defense's use of industry partnerships).

regardless of the political color of the administration. The Clinton administration championed stakeholder processes such as “regulatory negotiation,” and negotiated alternative site-specific solutions in Project XL,¹⁷¹ while the Bush administration has continued to sound similar themes. Michael Leavitt, EPA administrator between mid-2003 and early 2005, emphasized collaboration as a means of resolving issues.¹⁷² More recently, the White House issued an executive order extending the principle of “cooperative conservation” to other federal agencies, including EPA,¹⁷³ while collaboration has been listed as one of the current EPA Administrator’s “Principles to Accelerate the Pace of Environmental Protection.”¹⁷⁴ The same theme appears in the Western Governors’ Association “enlibra” principles¹⁷⁵ and even, increasingly, in the actions and the rhetoric of environmental organizations.¹⁷⁶

7. Information

Information about the environmental performance of businesses is far more readily accessible today than in the past, and some see information itself as a potential driver for environmental improvement.¹⁷⁷ The example most often cited is the Toxics Release Inventory (“TRI”), mandated in 1986 to make communities more aware of pollution they were being exposed to (including pollution levels allowed under other regulations).¹⁷⁸ Although TRI imposed no obligation to reduce pollution levels, many

¹⁷¹ Case, *The EPA’s Environmental Stewardship Initiative*, *supra* note 1, at 43-44.

¹⁷² ADMINISTRATOR’S 500-DAY PLAN, *supra* note 1.

¹⁷³ Exec. Order No. 13,352, 69 Fed. Reg. 52,989 (Aug. 26, 2004).

¹⁷⁴ THE ADMINISTRATOR’S ACTION PLAN, *supra* note 1.

¹⁷⁵ The “Enlibra Principles” were adopted by the Western Governors’ Association in 1999. See Western Governors’ Association, *supra* note 77.

¹⁷⁶ Environmental groups increasingly tout their partnerships and collaborative initiatives as a complement to litigation and other adversarial activities. See, e.g., Deutsch, *supra* note 170 (describing the Environmental Defense Fund’s efforts to negotiate and collaborate with business as an alternative to more adversarial methods).

¹⁷⁷ See, e.g., David W. Case, *Corporate Environmental Reporting as Informational Regulation: A Law and Economics Perspective*, 76 U. COLO. L. REV. 379 (2005) [hereinafter Case, *Corporate Environmental Reporting*]; Daniel C. Esty, *Next Generation Environmental Law: A Response to Richard Stewart*, 29 CAP. U. L. REV. 183, 193-204 (2001); Jeanne Herb, Susan Helms & Michael J. Jensen, *Harnessing the “Power of Information”: Environmental Right to Know as a Driver of Sound Environmental Policy*, in NEW TOOLS FOR ENVIRONMENTAL PROTECTION, *supra* note 160, at 253, 253. See ENVIRONMENT.GOV, *supra* note 9, at 170.

¹⁷⁸ Case, *Corporate Environmental Reporting*, *supra* note 177, at 381-86.

businesses did so once their total releases were put on the public record.¹⁷⁹ More recently, the Global Reporting Initiative (“GRI”) has encouraged major firms to report to the public on their environmental performance in the same way that they report on business performance.¹⁸⁰ GRI reports that nearly 1,000 organizations are currently using its guidelines.¹⁸¹

The idea that disclosure of information alone could change behavior is distinctly “alternative-model” thinking. It sees corporate behavior as driven by more than purely financial and legal considerations: sensitive to community pressures, adverse publicity, and other relatively intangible risks and liabilities. In this model, some organizations see it in their self-interest to commit voluntarily to sharing information that they might prefer to conceal, presumably because they believe that their performance will be better than their competitors, that voluntary information-sharing looks better than that imposed by pressure or litigation, or that the publicity benefits of being a leader outweigh the disadvantages of releasing information. The standard model assumes that market forces impose an environmental race to the bottom; the alternative-model sees the possibility, at least in some instances, of a race to the top. The use of information as a policy tool is also an “alternative model” approach in that it tends to stimulate continuous improvement, not merely compliance with a mandated standard.

C. *“Alternative Path” Strategies*

A third category of programs is more ambitious than the first two, combining strategies with the aim of establishing an entire “alternative path” for participating organizations. In this model, a relatively small number of exceptional firms qualify for a different regulatory regime entirely—one that is less prescriptive, imposes less oversight, and relies on an internal commitment to environmental leadership—to deliver performance beyond what others achieve.

1. Regulatory Flexibility for Superior Performance

Some programs have offered to tailor entirely new requirements on a case-by-case basis for organizations that agree to environmentally

¹⁷⁹ *Id.* at 385-86.

¹⁸⁰ *Id.* at 397-401.

¹⁸¹ Global Reporting Initiative, <http://www.globalreporting.org> (last visited Dec. 1, 2006).

superior alternative strategies. Although cost savings or other business advantages are not typically required, they are assumed as the program is voluntary in nature. The most ambitious such program was EPA's Project XL, a Clinton administration initiative;¹⁸² some states followed suit with similar programs.¹⁸³ Project XL no longer exists,¹⁸⁴ but some of the state programs do.¹⁸⁵

Project XL did not target any particular alternative strategy; rather, it opened the door for regulated organizations to propose their own strategies.¹⁸⁶ As a result, the projects carried out under Project XL were extremely diverse and incorporated many of the alternative-model strategies discussed earlier. Representative projects included:

¹⁸² Project XL has been the subject of much comment. *See, e.g.*, ALFRED A. MARCUS, DONALD A. GEFFEN & KEN SEXTON, REINVENTING ENVIRONMENTAL REGULATION: LESSONS FROM PROJECT XL (2002); RESOLVING THE PARADOX, *supra* note 7, at 11-20; Dennis D. Hirsch, *Project XL and the Special Case: The EPA's Untold Success Story*, 26 COLUM. J. ENVTL. L. 219 (2001) [hereinafter Hirsch, *Project XL*]; Dennis D. Hirsch, *Bill and Al's XL-ent Adventure: An Analysis of the EPA's Legal Authority to Implement the Clinton Administration's Project XL*, 1998 U. ILL. L. REV. 129 (1998) [hereinafter Hirsch, *Bill and Al's XL-ent Adventure*]; Lisa C. Lund, *Project XL: Good for the Environment, Good for Business, Good for Communities*, 30 *Envtl. L. Rep. (Envtl. Law. Inst.)* 10,140 (2000); Mank, *supra* note 134; Steinzor, *Reinventing Environmental Regulation*, *supra* note 3, at 142; Stewart, *A New Generation*, *supra* note 35, at 64-68.

¹⁸³ For examples of past leading state programs, see MINN. STAT. § 114C.01 (2005); Oregon Department of Environmental Quality, Green Permits, <http://www.deq.state.or.us/programs/greenpermits/index.htm> (last visited Dec. 1, 2006) [hereinafter Green Permits] (describing Oregon's "Green Permits" program); Wisconsin Department of Natural Resources, Green Tier, <http://www.dnr.wi.gov/org/caer/cea/environmental> (last visited Dec. 1, 2006) [hereinafter Green Tier] (describing Wisconsin's "Environmental Cooperation Pilot Program"). The Minnesota act was similar to Project XL, while the Wisconsin and Oregon programs were more structured and required the establishment of an EMS as a condition for receiving flexibility. Texas created "regulatory incentives" for companies to establish EMSs. *See* TEX. WATER CODE ANN. § 5.131 (Vernon 2005).

¹⁸⁴ Project XL was never formally terminated, but EPA stopped soliciting new proposals during the Bush Administration. *See* Environmental Protection Agency, Project XL, <http://www.epa.gov/projectXL> (last visited Dec. 1, 2006). Projects initiated between 1996 and 2000 are still being implemented.

¹⁸⁵ Oregon's highly-publicized "Green Permits" program was dramatically scaled back when the state hit hard economic times. *See* Green Permits, *supra* note 183. After a change in administration in New Jersey, the new commissioner canceled the prior commissioner's "silver and gold track" program, citing its high transaction costs and relatively small participation. *The Integrator*, *supra* note 137, at 47. Since commentators often saw the lack of a statutory basis as a critical impediment to Project XL, it is noteworthy that the existence of legislation did not ensure survival of the state programs.

¹⁸⁶ *See* RESOLVING THE PARADOX, *supra* note 7, at 76-78.

- Granting a facility a “cap-and-trade” air permit allowing frequent operational changes so long as emissions did not exceed a predetermined limit which was well below otherwise permissible levels;¹⁸⁷
- Waiving a prohibition on highway construction in an area that did not attain ambient air quality standards, to allow residential development in the central city, thus reducing overall emissions from highway travel by residents;¹⁸⁸
- Deregulating certain hazardous wastes in order to make it cheaper for them to be recycled.¹⁸⁹

XL projects (and those under similar state programs) incorporated many of the strategies described above, such as performance-based regulation, removal of regulatory barriers, use of environmental management systems, and public reporting of environmental performance.¹⁹⁰ Agreements were reached through open stakeholder processes, emphasizing a collaborative approach.¹⁹¹

2. Business Leadership Programs

This second type of “alternative path” program is designed for environmental leaders. These programs emerged somewhat later than the “regulatory flexibility” programs, and include EPA’s “National Environmental Performance Track,”¹⁹² and a growing number of similar

¹⁸⁷ *Id.* at 75-94 (providing an overview of the Intel XL project).

¹⁸⁸ See U.S. ENVTL. PROT. AGENCY, EPA-100-F-99-026, PROJECT XL: THE ATLANTIC STEEL REDEVELOPMENT (2002), available at <http://epa.gov/projectxl/atlantic/atlanticFact02.pdf>; EPA, Atlantic Steel, <http://www.epa.gov/projectxl/atlantic/index.htm> (last visited Dec. 1, 2006).

¹⁸⁹ See Environmental Protection Agency, Project XL: HADCO, <http://www.epa.gov/projectxl/hadco/index.htm> (last visited Dec. 1 2006) [hereinafter HADCO XL Project] (describing the HADCO XL project).

¹⁹⁰ See Hirsch, *Project XL*, *supra* note 182, at 219-22 (describing the strategies and objectives of Clinton-era environmental policies, specifically Project XL); Environmental Protection Agency, Project XL: Frequently Asked Questions, <http://www.epa.gov/projectxl/faqs.htm#3> (last visited Dec. 1 2006) [hereinafter Project XL FAQs].

¹⁹¹ See Project XL FAQs, *supra* note 190.

¹⁹² See Environmental Protection Agency, National Environmental Performance Track, <http://www.epa.gov/performancectrack> (last visited Dec. 1 2006).

state initiatives such as Michigan's "Clean Corporate Citizen" program,¹⁹³ Wisconsin's "Green Tier" program,¹⁹⁴ and others.¹⁹⁵

In such programs the government sets up criteria for "good performance," which typically means, at a minimum, a sustained clean compliance record.¹⁹⁶ Most programs call for more—often adoption of a strong environmental management system—and commitments to improvements "beyond compliance."¹⁹⁷ In return, the agency provides benefits such as public recognition, reduced enforcement priority, and reduced penalties when violations are voluntarily reported and corrected.¹⁹⁸ Some programs include regulatory advantages, such as greater flexibility in managing hazardous waste,¹⁹⁹ or faster and more certain permitting times.²⁰⁰ The most ambitious programs go even further and offer tailored, facility-specific regulatory flexibility to those companies that make the most extensive "beyond compliance" commitments.²⁰¹

The more ambitious leadership programs combine many of the alternative-model strategies discussed above. They resemble voluntary programs in that they use recognition and other incentives to encourage desirable behavior.²⁰² They use information as an incentive by publicly

¹⁹³ See MICH. ADMIN. CODE r. 324.1501-1511 (2006).

¹⁹⁴ See Green Tier, *supra* note 183. This program was created by legislation entitled "Environmental Results Program." See WIS. STAT. § 299.83 (2006).

¹⁹⁵ For a description of various state programs, see ENVIRONMENT.GOV, *supra* note 9, at 47-53; Spier, *supra* note 1, at 206-11.

¹⁹⁶ Even here, allowance is usually made for minor violations, an indication that even agencies recognize that perfect compliance is extremely difficult to attain. See Environmental Protection Agency, Performance Track: Benefits, <http://www.epa.gov/performance-track/benefits/index.htm> (last visited Dec. 1, 2006) [hereinafter Performance Track: Benefits].

¹⁹⁷ For requirements of the EPA's Performance Track program, see U.S. ENVTL. PROT. AGENCY, PERFORMANCE TRACK PROGRAM GUIDE 3-8 (2005) [hereinafter PERFORMANCE TRACK PROGRAM GUIDE], available at <http://www.epa.gov/performance-track/downloads/PTprog-guide.pdf>.

¹⁹⁸ See Performance Track: Benefits, *supra* note 196.

¹⁹⁹ See, e.g., Environmental Protection Agency, Performance Track: Waste Incentives, <http://www.epa.gov/performance-track/benefits/regadmin/waste.htm> (last visited Dec. 1, 2006) (describing regulatory benefits for RCRA compliance).

²⁰⁰ See, e.g., Green Permits, *supra* note 183.

²⁰¹ One of the few programs that offers the possibility of tailored regulation is Wisconsin's "Green Tier" program. See Green Tier, *supra* note 183.

²⁰² See, e.g., Environmental Protection Agency, Performance Track: Recognition, <http://www.epa.gov/performance-track/benefits/recognition.htm> (last visited Dec. 1, 2006) [hereinafter Performance Track: Recognition] (discussing benefits from EPA recognition of "Performance Track" participation).

reporting the performance of their members.²⁰³ They recognize the existence of and design their strategies around the potential for environmental leadership in the business community, including, but hardly limited to, the use of environmental management systems.²⁰⁴ The non-regulatory commitments they ask for from their members often include the kinds of strategies that are difficult to mandate, such as redesigning manufacturing processes and products to reduce use of toxic materials, considering impacts over the full life-cycle of the product (including its disposal), “supply-chain” management, and mentoring smaller businesses.²⁰⁵ And, at least to a limited degree, they offer alternative and less prescriptive regulation. They differ from the “regulatory flexibility” programs such as Project XL, however, in that arrangements are generally not tailored for specific participants. Therefore, although the regulatory benefits may be less, so are the transaction costs of participation.²⁰⁶

It is possible for leadership programs to offer a combination of standardized benefits with the opportunity to negotiate more tailored, facility-specific regulatory flexibility to those companies that make the most extensive “beyond compliance” commitments. This approach may help reduce the controversy associated with regulatory flexibility programs by limiting their scope to those that are already good performers. The combined model may also come closer to the original concept of the “alternative path.” However, to date, very few programs have taken such an ambitious approach.²⁰⁷

D. *Focusing on Results*

A fourth innovation has to do with the internal management of environmental agencies. These changes have been less visible than most of the strategies discussed above, but may have more significant long-term consequences.

²⁰³ *See id.*

²⁰⁴ *See* PERFORMANCE TRACK PROGRAM GUIDE, *supra* note 197, at 3-5.

²⁰⁵ *See id.*

²⁰⁶ U.S. ENVTL. PROT. AGENCY, NATIONAL ENVIRONMENTAL PERFORMANCE TRACK: FREQUENTLY ASKED QUESTIONS (2006), http://www.epa.gov/performance-track/downloads/FrequentlyAskedQuestions3_06.pdf (noting that costs vary based on the amount of participation by member organizations).

²⁰⁷ The only currently active leadership program that offers tailored flexibility appears to be Wisconsin’s “Green Tier” program. *See* Green Tier, *supra* note 183. Oregon’s “Green Permits” program also offers tailored flexibility, but has been scaled back. *See* Green Permits, *supra* note 183.

As noted earlier, a defining feature of alternative-model environmental protection is a focus on the results being achieved rather than the means by which they are achieved.²⁰⁸ Historically, the job of environmental agencies was defined in terms of carrying out the legal mandates adopted by Congress and state legislatures. Agency performance was judged primarily on the basis of program outputs, such as the number of enforcement cases brought or permits issued.

Beginning in the 1990s, agencies started paying closer attention to outcomes, rather than just outputs. In 1995, EPA announced a major change in the way it would oversee state programs through the National Environmental Performance Partnership System ("NEPPS").²⁰⁹ Rather than "bean-counting" (measuring the number of actions taken, such as inspections), NEPPS was intended to look at broader measures of state agency performance such as improvements in environmental conditions.²¹⁰ Within EPA, the Government Performance and Results Act of 1993²¹¹ ("GPRA") required greater attention to and reporting on program achievements.²¹² However, the initial implementation of GPRA at EPA still focused heavily on program outputs (whether tasks assigned to units were completed) rather than environmental outcomes.²¹³ Therefore, under the Bush administration, EPA put increasing emphasis on "managing for results," using its strategic plan to focus on key environmental goals and to hold programs accountable for advancing those goals.²¹⁴

²⁰⁸ See *supra* Part I.A.

²⁰⁹ ENVIRONMENT.GOV, *supra* note 9, at 135-48; RESOLVING THE PARADOX, *supra* note 7, at 46-52.

²¹⁰ ENVIRONMENT.GOV, *supra* note 9, at 140.

²¹¹ Government Performance and Results Act of 1993, Pub. L. No. 103-62, § 4, 107 Stat. 285, 286-89 (1993)(codified as amended at 31 U.S.C. §§ 1115-1116 (2006)). See RESOLVING THE PARADOX, *supra* note 7, at 39 (discussing the adoption of GRPA).

²¹² RESOLVING THE PARADOX, *supra* note 7, at 39-46.

²¹³ U.S. GEN. ACCOUNTING OFFICE, GAO/RCED-00-77, MANAGING FOR RESULTS: EPA FACES CHALLENGES IN DEVELOPING RESULTS-ORIENTED PERFORMANCE GOALS AND MEASURES 5-7 (2000) (finding that "outputs account for 74 percent of the performance goals and 81 percent of the performance measures in EPA's plan" for fiscal year 2000).

²¹⁴ See ADMINISTRATOR'S 500-DAY PLAN, *supra* note 1 (outlining the Administrator's principles, which included "[r]eward results, not programs"); INNOVATING FOR BETTER ENVIRONMENTAL RESULTS, *supra* note 1, at 21. EPA's Strategic Plan accordingly links all agency activities to five major goals: "air and global climate change, water, land, communities and ecosystems, and compliance and environmental stewardship." Environmental Protection Agency, Strategic Plan, <http://www.epa.gov/cfo/plan/plan.htm> (last visited Dec. 1 2006).

Shifting the focus from means to ends has the potential to fundamentally alter the culture of regulatory agencies. If the incentives are right, staff will be encouraged to think creatively about the strategies that will best achieve their goals, rather than simply carrying out legislated mandates. This does not mean that they will always adopt unconventional approaches; traditional strategies may be the most effective option in many instances. However, a focus on results should, at least in theory, invite them to think of themselves as problem-solvers rather than simply “program implementers.”²¹⁵ A fundamental challenge is whether such an approach can be reconciled with a legal and constitutional structure in which the role of agencies is not (as the term “agency” implies) to initiate, but to carry out the directions of Congress and top executive officials.

IV. CASE STUDIES IN THE “ALTERNATIVE MODEL”

The implications of choosing between the standard and alternative models, and the challenges that alternative approaches present, can be illustrated using a few prominent examples from the recent past.

A. *Regulatory Flexibility Programs*

Probably the single most prominent program explicitly labeled as a “second generation” strategy was EPA’s Project XL,²¹⁶ which invited regulated parties to bring in proposals for alternative environmental strategies and offered to “throw out the rule book” if they delivered superior environmental performance.²¹⁷

Project XL was launched without very specific goals; it was initiated not so much to stimulate superior performance, but to respond to charges that the regulatory system forced the use of suboptimal strat-

²¹⁵ See INNOVATING FOR BETTER ENVIRONMENTAL RESULTS, *supra* note 1, at 20 (encouraging an “innovative spirit . . . [that] will require each individual to view his or her job more broadly—as an environmental problem-solver, a partner, a facilitator, and a leader, not solely as a program implementor”).

²¹⁶ See *supra* Part III.C.1.

²¹⁷ The Agency publicly used the term “throw out the rule book.” *E.g.*, Carol M. Browner, *The Earth is in Your Hands*, EPA J., Winter 1995, <http://www.epa.gov/history/topics/earthday/08.htm>. For key notices announcing and clarifying the program, see Regulatory Reinvention (XL) Pilot Projects, 62 Fed. Reg. 19,872 (Apr. 23, 1997); Regulatory Reinvention (XL) Pilot Projects, 60 Fed. Reg. 27,282 (May 23, 1995). Project XL did not demand that alternative strategies provide cost savings or other benefits, but since participation was voluntary, this was assumed to be the case.

egies.²¹⁸ Not surprisingly, it was the availability of regulatory flexibility that drew the most attention, much of which was critical.²¹⁹ Nevertheless, Project XL also elicited proposals from firms that were genuinely seeking to address environmental issues in a superior way. In addition to reducing pollution below levels otherwise required by law, XL projects involved commitments to strategies such as:

- environmental management systems;²²⁰
- considering environmental impacts in product design;²²¹
- exploration of new and superior technologies;²²²
- comprehensive pollution prevention assessment.²²³

A program such as Project XL is a good example of the alternative model. On one hand, it establishes a goal of environmental performance beyond the minimum required by law. On the other, it provides flexibility to negotiate the nature, rate or extent of the superior performance obtained while creating incentives for continuous improvement over time.²²⁴ These arrangements mesh social and business goals more effectively than

²¹⁸ See RESOLVING THE PARADOX, *supra* note 7, at 12.

²¹⁹ See, e.g., Steinzor, *Reinventing Environmental Regulation*, *supra* note 3, at 131-33, 139-40; Cindy Skrzycki, *Critics See a Playground for Polluters in EPA's XL Plan*, WASH. POST, Jan. 24, 1997, at D1.

²²⁰ See, e.g., Final Project Agreement: Imation Corp., Camarillo, CA Plant, 64 Fed. Reg. 37,785, at 37,803 (July 13, 1999); U.S. ENVTL. PROT. AGENCY, FINAL PROJECT AGREEMENT FOR THE XL PROJECT AT IMATION CORP. 22-24 (1999), <http://www.epa.gov/projectxl/imation/122099.pdf>.

²²¹ See, e.g., U.S. ENVTL. PROT. AGENCY, FINAL PROJECT AGREEMENT FOR THE INTEL CORPORATION OCOTILLO SITE PROJECT XL 6 (1996), <http://www.epa.gov/projectxl/intel/119996.htm>; Mohin, *supra* note 95, at 10,351.

²²² See, e.g., U.S. ENVTL. PROT. AGENCY, WEYERHAEUSER XL PROJECT FINAL PROJECT AGREEMENT (1997), <http://www.epa.gov/projectxl/weyer/011797.htm> (follow "Part VI: Implementing Weyerhaeuser's MIM Vision for Flint River Operations" hyperlink) (establishing a commitment to study the feasibility of further effluent reductions).

²²³ See, e.g., U.S. ENVTL. PROT. AGENCY, FINAL PROJECT AGREEMENT, OSI SPECIALTIES (1997), <http://www.epa.gov/projectxl/crompton/101797.htm>.

²²⁴ As an example, an incentive was created by the cap-and-trade permit adopted in the Merck XL Final Project Agreement. See Environmental Protection Agency, Project XL: Merck & Co., Inc., Final Project Agreement, <http://www.epa.gov/projectxl/merck/011697.htm> (last visited Dec. 1, 2006) [hereinafter Merck XL Final Project Agreement]. The more Merck could reduce emissions below the cap, the more room it would have for future production increases or facility changes without undergoing a permit review. *Id.* See also *New York v. United States Env'tl. Prot. Agency*, 413 F.3d 3, 37 (D.C. Cir. 2005) (discussing the "headroom" incentive).

the traditional regulatory system, while creating the likelihood that, over time, outcomes will be superior both economically and environmentally.²²⁵ While the program was not explicitly limited to environmental leaders, EPA was able to select the partners with which it felt most comfortable.²²⁶

The regulatory innovations seen in Project XL were also typical of the alternative model. A common type of proposal was to establish “cap and trade” air permits, which would allow facilities to make operational changes without undergoing any agency review, as long as they stayed within their emission limits.²²⁷ This amounted to a form of “performance-based regulation,” as contrasted with standard rules which required re-permitting any time a new source was constructed or underwent a major modification.²²⁸ Another proposal seen in several projects was to deregulate hazardous waste from electroplating operations, either to encourage recycling or to exempt waste that was in fact not hazardous, and thus indirectly reward those who developed less toxic production processes.²²⁹

However, the program was inherently controversial. After twenty-five years of fighting to bring industry into compliance with more stringent regulatory requirements, environmental advocates saw such an approach as a retreat, not an advance.²³⁰ Proposals were examined skeptically, and proponents were often held to a high standard when

²²⁵ See, e.g., Merck XL Final Project Agreement, *supra* note 224 (outlining the environmental and economic benefits of the Merck XL Project).

²²⁶ For example, EPA screened XL applicants to exclude those with significant violations or pending enforcement actions. See Environmental Protection Agency, Project XL: Guidance For Compliance Screening for Project XL, <http://www.epa.gov/projectxl/guide8.htm> (last visited Dec. 1, 2006). Further, the program tended to attract organizations that were environmentally proactive, if only because laggards had little desire to attract so much attention from regulators and the public.

²²⁷ One example is the Intel XL Project. For a detailed study, see RESOLVING THE PARADOX, *supra* note 7, at 75-94; Mohin, *supra* note 95, at 10,347-51. Other projects involving such permits included the Merck XL and Imation XL Projects. See Environmental Protection Agency, Project XL: Merck & Co., Inc., <http://www.epa.gov/projectxl/merck/index.htm> (last visited Dec. 1, 2006); Environmental Protection Agency, Project XL: Imation, <http://www.epa.gov/projectxl/imation/index.htm> (last visited Dec. 1, 2006).

²²⁸ See, e.g., Mohin, *supra* note 95, at 10,350 (discussing the flexibility the Intel XL plan provided).

²²⁹ See, e.g., HADCO XL Project, *supra* note 189; Environmental Protection Agency, Project XL: IBM Semiconductor Manufacturing Facility, <http://www.epa.gov/projectxl/ibm2/index.htm> (last visited Dec. 1, 2006); Environmental Protection Agency, Project XL: Molex Incorporated, <http://www.epa.gov/projectxl/molex/index.htm> (last visited Dec. 1, 2006).

²³⁰ See Steinzor, *Reinventing Environmental Regulation*, *supra* note 3, at 131-33, 139-40 (arguing that pollution could increase in XL projects and criticizing the suggestion that it could substitute for command-and-control regulation). The press also tended to highlight the risks in Project XL. See, e.g., Skrzycki, *supra* note 219.

proving that results would be superior.²³¹ Those evaluating proposals sought a high degree of assurance that the benefits would materialize and were not overstated. As a result, they tended to focus on the worst outcomes that might result from a particular project, rather than the best that might be hoped for.

The idea of offering regulatory flexibility was also controversial. In theory, flexibility was to be an enabling device, allowing regulated organizations to identify and implement better ways of achieving environmental goals. However, the program also used regulatory flexibility as an incentive, “trading” it for superior environmental performance.²³² Viewed in this way, flexibility could be seen as a concession to obtain behavior that environmentalists had long been urging business to adopt for other and better reasons. Furthermore regulations rarely prohibited environmentally desirable practices outright, so the need for flexibility as a precondition for improved performance was not always evident.

Businesses who proposed XL projects were surprised by this reaction. They saw themselves as offering superior alternatives to what would have been accomplished under the traditional regulatory system.²³³ Further, they believed that the projects allowed them to use their superior knowledge of their own businesses and environmental issues to create a model that was better than the one mandated by law.²³⁴ For example, although EPA had no authority to mandate that all coal-fired power plants be replaced with natural gas, an individual company could offer to make

²³¹ For example, when Merck offered to replace its coal-fired power plant with a cleaner natural gas plant in exchange for a “cap-and-trade” permit, critics contended that other regulatory requirements that might become applicable in the future would likely require shutdown of the coal plant anyway, and that this inevitable replacement should not result in increased regulatory flexibility. See JANICE MAZUREK, OECD WORKING PARTY ON NAT'L ENVTL. POL'Y, VOLUNTARY APPROACHES: TWO UNITED STATES CASES 28-29 (2003). Similarly, the Intel project received serious criticism from environmental groups. RESOLVING THE PARADOX, *supra* note 7, at 93-94. See MARCUS, GEFFEN & SEXTON, *supra* note 182, at 132 (negotiation of Weyerhaeuser XL Project was “win-lose” in nature, with “continual back and forth negotiations, especially with EPA’s Office of General Counsel”).

²³² For example, the projects involving “cap and trade” air permits typically required the facility to agree to significantly lower emissions limits than under existing permits. See, e.g., RESOLVING THE PARADOX, *supra* note 7, at 79-86 (describing the terms of the Intel XL Agreement). However, the actions required to make those reductions were not prohibited by existing permits. Thus, granting flexibility was not necessary to enable the changes, but provided an attractive quid pro quo to obtain those commitments.

²³³ See Mohin, *supra* note 95, at 10,353-54 (asserting that narrowly focused demands for superior performance in each project miss the “big[] picture” benefits of policy experimentation).

²³⁴ *Id.* at 10,354.

such a change as a way of addressing a pressing local haze problem.²³⁵ Critics, however, were reluctant to see such commitments as warranting regulatory flexibility.²³⁶ In addition, some practices that businesses felt showed a clear commitment to a different way of doing business, such as EMSs or community involvement programs, did not get a great deal of weight overall in the agency’s formula for assessing superior performance.²³⁷

These dramatic differences in perspective made it difficult to agree on whether a proposal was in fact a step forward or back. It proved remarkably difficult to agree on the relevant “baseline” by which future results were judged.²³⁸ EPA tended to use, as its reference point, the outcomes that would occur if flexibility were not provided.²³⁹ It did not want to sign agreements that expressly anticipated emissions levels greater than before.²⁴⁰ Some businesses, however, felt that this simply penalized them for all the efforts they had made previously to reduce emissions well below the levels required by law.²⁴¹ Absent a project, they would have the ability to increase emissions above current levels (e.g., as a result of increased production), while still doing more for the environment than competitors doing the minimum required by law.²⁴²

The uncertainty inherent in some strategies also clashed with the desire of regulators for certainty and accountability to guarantee desirable results. Businesses wanted to set ambitious goals, but not to put themselves in the position of being fined for failing to achieve them. EPA, of course, wanted assurance that the promised environmental benefits from the project would actually accrue.²⁴³ Further complicating the picture was the fact that some kinds of commitments (e.g., agreement to undertake

²³⁵ See Merck XL Final Project Agreement, *supra* note 224.

²³⁶ See, e.g., Skrzycki, *supra* note 219.

²³⁷ See Regulatory Reinvention (XL) Pilot Projects, 62 Fed. Reg. 19,871, at 19,875 (Apr. 23, 1997) (listing non-“end-of-pipe” pollution prevention and similar commitments as secondary considerations in the evaluation of superior environmental performance).

²³⁸ See RESOLVING THE PARADOX, *supra* note 7, at 14 (describing data selection and development for the Intel XL project).

²³⁹ See *id.*

²⁴⁰ See *id.* at 95; MARCUS, GEFFEN & SEXTON, *supra* note 182, at 97.

²⁴¹ MARCUS, GEFFEN & SEXTON, *supra* note 182, at 87 (citing memo from 3M corporation, whose project was not approved).

²⁴² One proposal foundered because EPA viewed any increase in emissions over current levels as backsliding, whereas the applicant felt that its current levels reflected substantial reductions beyond what was required by law, and that it should retain some ability to increase emissions as long as it stayed well below its old permit limits. See MARCUS, GEFFEN & SEXTON, *supra* note 182, at 92; RESOLVING THE PARADOX, *supra* note 7, at 95.

²⁴³ MARCUS, GEFFEN & SEXTON, *supra* note 182, at 92.

research into possible pollution-preventing technologies) did not lend themselves to easy enforcement. The resolution was to recognize three kinds of commitments: those enforceable in traditional ways (e.g., emissions levels); those that were central to a project, as to which nonperformance could result in cancellation of the agreement; and “aspirational” commitments that would not be enforced.²⁴⁴ This somewhat complicated structure demonstrates the difficulty of squeezing highly varied practices into a regulatory structure that typically sets a single, clearly-defined standard of practice for which compliance is universally expected.

In short, using regulatory flexibility either to remove barriers, or to create incentives, proved complicated. The level of controversy caused negotiations to be protracted; opportunities for community input sometimes highlighted conflicts rather than identifying shared goals.²⁴⁵ The program developed a reputation for high transaction costs,²⁴⁶ but these costs largely reflected more fundamental difficulties in the use of regulatory flexibility as an incentive for superior performance. Ultimately, Project XL did not survive the change in administration from President Clinton to George W. Bush, although EPA continued to implement the projects that had been started, and to work in a more low-profile way on new projects with states and a few companies.²⁴⁷

B. Special Treatment for EMSs

A second example of an “alternative model” strategy involves environmental management systems. As EMSs became more widely adopted, commentators became intrigued with their policy implications.²⁴⁸ At a minimum, agencies have seen them as a potentially valuable tool for improving environmental performance and have looked for ways to encourage their use. EPA has formally endorsed the use of EMSs and promotes

²⁴⁴ Regulatory Reinvention (XL) Pilot Projects, 62 Fed. Reg. 19,871, at 19,875 (Apr. 23, 1997) (distinguishing between “enforceable” and “voluntary” commitments, and “corporate aspirations”).

²⁴⁵ See RESOLVING THE PARADOX, *supra* note 7, at 92-93 (explaining that despite extensive stakeholder process in Intel XL project, activists were vocal critics).

²⁴⁶ *Id.* at 13 (noting reasons for loss of business enthusiasm for Project XL).

²⁴⁷ Project XL was never formally terminated, but the Agency has not been soliciting applications since January 2003. See *supra* notes 184-85 and accompanying text.

²⁴⁸ See *infra* note 295.

them through a variety of voluntary programs.²⁴⁹ It also requires organizations to adopt EMSs in some cases to resolve enforcement actions.²⁵⁰

Some have gone further and suggested that EMSs could provide the basis for significant changes in environmental policy.²⁵¹ An EMS, it is argued, is an indicator that a regulated organization is capable of managing its own environmental issues with less prescriptive governmental oversight. Ideas that have been suggested include offering more performance-based requirements, redirecting enforcement efforts elsewhere, designing administrative permit terms around the EMS, or using the EMS to identify and take into account cross-media impacts of regulatory requirements.²⁵² Some states have initiated programs along these lines, and EPA has indicated its intent to experiment with such options.²⁵³

A number of challenges face the proponents of preferential treatment for EMSs, however.²⁵⁴ One is that it remains uncertain whether an

²⁴⁹ Position Statement on Environmental Management Systems (EMSs), 71 Fed. Reg. 5664, 5665 (Feb. 2, 2006). One such program is Performance Track, which provides benefits to environmental leaders; having an EMS is one of the criteria for eligibility. PERFORMANCE TRACK PROGRAM GUIDE, *supra* note 197, at 3. Other programs provide encouragement or assistance for EMS implementation. *See, e.g.*, National Biosolids Partnership, <http://www.biosolids.org> (last visited Dec. 1, 2006) (discussing the National Biosolids Partnership, a joint effort in which EPA is an advisory member); Environmental Protection Agency, Sector Programs: Environmental Management Systems, <http://www.epa.gov/sectors/ems.html> (last visited Sept. 11, 2006) (describing the “Sector Strategies” program); Environmental Protection Agency, Agriculture Topics, Environmental Management Systems, <http://www.epa.gov/agriculture/tems.html> (last visited Dec. 1, 2006) (describing EMS assistance provided by the National Agriculture Compliance Assistance Center).

²⁵⁰ *See* Memorandum from John Peter Suarez, EPA Assistant Administrator, to EPA Regional Administrators and Regional Counsel (June 12, 2003), *available at* <http://www.epa.gov/compliance/resources/policies/incentives/ems/emssettlementguidance.pdf> (providing “Guidance on the Use of Environmental Management Systems in Enforcement Settlements”).

²⁵¹ *See* Cary Coglianese & Jennifer Nash, *Toward a Management-Based Environmental Policy?*, in REGULATING FROM THE INSIDE, *supra* note 1, at 222, 225 [hereinafter Coglianese & Nash, *Toward a Management-Based Environmental Policy?*] (“Many policymakers in business and government see the movement toward EMS adoption as an opportunity for large-scale changes in the regulatory system”); Case, *The EPA’s Environmental Stewardship Initiative*, *supra* note 1, at 73 (“Tremendous optimism exists regarding the potential for use of EMSs as a public policy instrument rather than simply an internal firm management tool.”); Orts, *supra* note 27, at 1313-37 (proposing a U.S. version of the European Union’s Eco-Management and Auditing Scheme (“EMAS”)).

²⁵² EPA EMS STRATEGY, *supra* note 151, at 6; Coglianese & Nash, *Toward a Management-Based Environmental Policy?*, *supra* note 251, at 225-26.

²⁵³ *See* EPA EMS STRATEGY, *supra* note 151, at 3.

²⁵⁴ *See generally* DAVIES ET AL., *supra* note 132, at 46-47 (discussing challenges facing EMS proponents, such as corporate incentives to “minimally comply with the law,” and the fact that EMSs are not “performance-based,” but “inputs” based).

EMS—even one meeting international standards—is a guarantee of superior environmental management. Research to date indicates a high degree of variability: some organizations use their EMSs to improve performance significantly, but in others the system itself seems to have little effect on either performance or compliance rates.²⁵⁵ Given this uncertainty, it is unclear that an EMS alone justifies less prescriptive legislation.

A further challenge is that a “quality” EMS is not easily defined or assessed. If an agency is to offer special regulatory treatment for those with EMSs, it must establish specifications to define eligibility for such treatment. However, since EMSs are complex, and tend to be tailored to individual organizations, this could easily lead to a set of requirements that is more detailed and intrusive than the original regulation, and harder for regulators to monitor and enforce.²⁵⁶ The existence of the international standard for EMSs, ISO 14001, could simplify matters, since it creates an objective standard for EMS adequacy—therefore avoiding the need for regulatory agencies to develop their own criteria—and provides a system of third-party assessment. Some programs have relied on the ISO 14001 standard, but others do not believe the standard is sufficient to achieve policy goals (e.g., because it does not require community participation in the development of the EMS),²⁵⁷ and uncertainty exists about the reliability of the third party assessments.²⁵⁸

A different challenge is that EMSs are comprehensive and multi-media in nature.²⁵⁹ This makes it difficult to incorporate them into new

²⁵⁵ DEP'T OF PUB. POL'Y, UNIV. OF N.C. AT CHAPEL HILL, ENVIRONMENTAL MANAGEMENT SYSTEMS: DO THEY IMPROVE PERFORMANCE?, at E4-E5 (2003), available at <http://www.fedcenter.gov/programs/EMS> (follow the “Lessons Learned” hyperlink; then follow the hyperlink of the report title) (observing that sixty percent of facilities reported improvements in environmental indicators, while less than one-third reported any decline in indicators).

²⁵⁶ See DAVIES ET AL., *supra* note 132, at 47 (“If we have learned anything about environmental policy over the past decades, it is that government should focus on results and leave the means (inputs) to the regulated entities.”). Uncertainty also exists about the reliability of the third party assessments. See Jan Mazurek, *Third-Party Auditing of Environmental Management Systems*, in ENVIRONMENTAL GOVERNANCE RECONSIDERED, *supra* note 7, at 455 [hereinafter Mazurek, *Third-Party Auditing*].

²⁵⁷ For this reason, an EMS standard placing greater weight on “external users” such as government, non-governmental organizations, and financial markets, has been developed by the Multistate Working Group on Environmental Performance, a consortium of governmental and non-governmental practitioners in the field. See Multistate Working Group on Environmental Performance, External Value EMS, http://www.mswg.org/featured_projects (follow the “External Value EMS” hyperlink) (last visited Dec. 1, 2006) (describing “External Value EMS”).

²⁵⁸ See Mazurek, *Third-Party Auditing*, *supra* note 256, at 464.

²⁵⁹ See EPA EMS STRATEGY, *supra* note 151, at 6.

rules, which are focused on narrower problems. The problem is not simply one of scope, but of legitimacy. Suppose an agency is setting standards for discharges to water in a particular industry, and tries to offer an option under which companies with certified EMSs have less prescriptive requirements. If it makes eligibility conditional on having a certified comprehensive EMS, regulated entities may fairly object that it has no authority, in a narrow rule, to establish requirements that address all media.

Thus, while the idea of making regulatory adjustments for those with EMSs remains tempting, it has rarely been put into practice beyond leadership programs available to a limited subset of organizations. To do so seems likely to require more substantial adjustments in regulatory practice than agencies may be willing to accept.²⁶⁰ Analysts who have looked closely into the matter have begun to question whether EMSs should affect policy at all.²⁶¹

C. *Cap-and-Trade Air Permits*

Beginning in the mid-1990s, EPA undertook an initiative to make significant changes in the Clean Air Act's New Source Review (“NSR”) program, responding to complaints that it was inefficient and could even impede environmental improvement.²⁶² This effort culminated with the

²⁶⁰ For example, to avoid imposing overly prescriptive eligibility criteria, agencies may have to rely on third-party audits and enforce compliance only in cases of serious non-conformance. EMS conditions seem to have been used most successfully in the leadership programs discussed *supra* Part III.C.2. This may be because the conditions are not reflected in formal rules, but are a matter of program implementation, allowing significant discretion without rendering the conditions meaningless. Moreover, such programs involve a relatively small number of facilities and the EMS is not the sole criterion for eligibility.

²⁶¹ Coglianesse & Nash, *Toward a Management-Based Environmental Policy?*, *supra* note 251, at 228 (“although EMSs may be an effective tool . . . the best policy response to their widespread adoption may be no response at all”).

²⁶² These regulatory changes involved a series of proposed and final rules. *See* Equipment Replacement Provision of the Routine Maintenance, Repair and Replacement Exclusion: Reconsideration, 70 Fed. Reg. 33,838 (June 10, 2005) (to be codified at 40 C.F.R. pts. 51-52); Equipment Replacement Provision of the Routine Maintenance, Repair and Replacement Exclusion, 68 Fed. Reg. 61,248 (Oct. 27, 2003) (to be codified at 40 C.F.R. pts. 51-52); Prevention of Significant Deterioration (PSD) and Nonattainment New Source Review (NSR), 67 Fed. Reg. 80,185 (Dec. 31, 2002); Notice of Availability; Alternatives for New Source Review (NSR), 63 Fed. Reg. 39,857 (July 24, 1998); Prevention of Significant Deterioration (PSD) and Nonattainment New Source Review (NSR), 61 Fed. Reg. 38,250 (proposed July 23, 1996) (to be codified at 40 C.F.R. pts. 51-52). This article can offer only a short summary of the issues presented by NSR reform. For a detailed examination of these changes and their relation to other ‘innovation’ initiatives, see Hirsch, *Lean and Green?*, *supra* note 46, at 635-37.

Bush Administration's issuance of new NSR regulations in 2002 and 2003.²⁶³ Although the changes were intended in part to reduce the economic burden of the regulations, EPA contended that one effect of the changes would be to remove barriers to environmentally desirable operational practices.

These changes were attacked more intensely, and by a broader range of critics, than almost any Agency action since the early Reagan Administration. They were challenged both in court and in the public forum, not only by environmental groups,²⁶⁴ but also by the states, who run most of the air permitting programs today.²⁶⁵ Although the 2002 rules were largely upheld,²⁶⁶ the fact that a change that some saw as environmentally beneficial was perceived by many others as a significant step backward highlights the challenges of using regulatory flexibility to bring about superior performance.

To understand this controversy, it is necessary to review briefly the essential elements of NSR. In short, the NSR program requires a permit to be obtained before any major source of air emissions may be constructed or significantly modified to create an increase in pollution.²⁶⁷ The purpose of requiring such a permit is to ensure that the facility adopts the "best available control technology," or other more stringent technology standards if the source is located in an area that does not attain national air quality standards.²⁶⁸

NSR (as it existed prior to the rule changes) was already more flexible than many regulations. First, rather than becoming immediately

²⁶³ Equipment Replacement Provision of the Routine Maintenance, Repair and Replacement Exclusion, 68 Fed. Reg. 61,248 (Oct. 27, 2003); Prevention of Significant Deterioration (PSD) and Nonattainment New Source Review (NSR), 67 Fed. Reg. 80,185 (Dec. 31, 2002).

²⁶⁴ See, e.g., *New York v. U.S. Env'tl. Prot. Agency*, 413 F.3d 3 (D.C. Cir. 2005) (noting that environmental groups intervened in rule challenge); see also Earthjustice, Background on New Source Review, http://www.earthjustice.org/library/background/background_on_new_source_review.html (last visited Dec. 1, 2006).

²⁶⁵ See, e.g., *New York v. U.S. Env'tl. Prot. Agency*, 443 F.3d 880 (D.C. Cir. 2006); *New York v. U.S. Env'tl. Prot. Agency*, 413 F.3d 3 (D.C. Cir. 2005).

²⁶⁶ See *New York v. EPA*, 413 F.3d at 10-11 (rejecting "challenges to substantial portions" of the rule, but finding two aspects "impermissible" and a third "arbitrary and capricious"). A second NSR rule, promulgated in 2003, fared less well and was entirely overturned. *New York v. EPA*, 443 F.3d 880.

²⁶⁷ See Bernard F. Hawkins, Jr., *The New Source Review Program: Its Prevention of Significant Deterioration and Nonattainment Analysis Programs*, in *THE CLEAN AIR ACT HANDBOOK* 98, 98 (Robert J. Martineau, Jr. & David P. Novello eds., 1998).

²⁶⁸ *Id.* at 102. For a detailed explanation of the NSR program and its differing standards in "attainment" and "non-attainment" areas, see *id.* at 98-145.

applicable to all sources, the requirements apply only when significant new construction or changes to the facility occur.²⁶⁹ This means that the facility can control, to some extent, the timing of its environmental improvements, and that they will be adopted at the point when it is most likely to be cost-effective to do so (as opposed to retrofitting controls on an otherwise unmodified facility). The definition of “best available control technology” was not fixed, but rather can evolve over time as technology improves, and is broad enough to encompass process changes as well as end-of-pipe controls.²⁷⁰

Critics of NSR contended, however, that the burden and delay of permitting had significant adverse consequences for firms that needed to make frequent changes in their production processes.²⁷¹ Some argued that the rules could discourage pollution prevention, which requires more fundamental process changes than end-of-pipe controls.²⁷² For example, upgrading equipment may include installing more energy-efficient, cleaner-running lines. If the cost of the permitting process and the resulting controls required is large, however, these changes may not be made.²⁷³

Facility-wide emission caps, or “plantwide applicability limits” (“PAL”) in NSR jargon, reduce these administrative hurdles.²⁷⁴ A cap exempts a facility from having to obtain an NSR permit when it makes a modification as long as its emissions remain under the cap.²⁷⁵ In addition, the test is applied on a plant-wide basis, rather than to individual emissions sources within the plant, as would normally be the case.²⁷⁶ Such a cap avoids the need for permitting delays (and the cost of the permitting process) when a change is made that will not increase emissions above the “baseline” level for the plant as a whole.²⁷⁷

²⁶⁹ See *id.* at 98.

²⁷⁰ Clean Air Act § 169(3), 42 U.S.C. § 7479(3) (2006) (defining best available control technology to include “maximum degree of reduction achievable . . . through application of production processes and available methods . . . for control of each pollutant”). In fact, the single greatest weakness in the NSR program is that it is *too* flexible, allowing facilities to avoid installing controls if they can postpone new construction or significant modifications. See NAT’L ACAD. OF PUB. ADMIN., A BREATH OF FRESH AIR: REVIVING THE NEW SOURCE REVIEW PROGRAM 1 (2003) [hereinafter A BREATH OF FRESH AIR].

²⁷¹ Hirsch, *Lean and Green?*, *supra* note 46, at 635-37. See A BREATH OF FRESH AIR, *supra* note 270, at 1, 4 (recommending a more “performance-based” permit system).

²⁷² Hirsch, *Lean and Green?*, *supra* note 46, at 637-38.

²⁷³ See *id.*

²⁷⁴ For a more detailed analysis of the effect of PALs, see *id.* at 648-52.

²⁷⁵ *Id.* at 649.

²⁷⁶ See *id.*

²⁷⁷ *Id.* at 649-50.

The PAL approach is a form of performance-based regulation, defining requirements in terms of a numeric goal rather than a particular desired behavior. Although traditional NSR permits do not specify particular controls to be adopted, the fact that they require a reassessment of controls whenever there is a major modification to a facility creates an impediment to operational changes at a facility, even if they do not increase emissions above the original permit limit.²⁷⁸ Rather than setting a target and leaving other decisions up to the facility so long as the target is met, NSR requires that decisions be reviewed by a regulator whenever there is a significant modification to the emission unit.²⁷⁹

A PAL clearly offers business advantages: a company can avoid the cost of permitting, find the most cost-effective way of controlling emissions across its facility, and change production lines quickly. However, PALs may also provide environmental benefits. As noted above, from a pollution prevention perspective, facilitating process change is desirable, and allowing operational flexibility could make it easier to make changes that either intentionally or incidentally reduce emissions.²⁸⁰ Furthermore, the PAL approach creates an incentive to reduce emissions in the short term. If the company can reduce its emissions, it creates room under its cap to make changes later that increase emissions.²⁸¹ Over time, this incentive may further reduce average emissions levels. Finally, if a firm has significantly reduced its emissions below its old permit limits, adopting a PAL would result in tighter enforceable limits because caps are based on historic emission levels.²⁸²

²⁷⁸ Although the Clean Air Act requires a permit only when a modification will result in increased emissions, the pre-2002 rules used a conservative approach to determine if that was the case. See 42 U.S.C. § 7411(a)(4) (2006). As a result, it was possible to trigger NSR even if, after the fact, emissions did not increase. See *New York v. U.S. Evtl. Prot. Agency*, 413 F.3d 3, 16-18 (D.C. Cir. 2005) (describing “actual to potential test”). Furthermore, even if facilities can demonstrate that emissions would not increase, the analysis itself can be expensive and time consuming. Hirsch, *Lean and Green?*, *supra* note 46, at 637.

²⁷⁹ Some argue that while in theory NSR permits do not specify the type of control to be used, this does occur in practice because agencies approve permit revisions most readily if the facility agrees to use the “reference technology” that the permit limit is based on. *Id.* at 634; Stewart, *Regulation, Innovation, and Administrative Law*, *supra* note 21, at 1268-69. See Strasser, *supra* note 9, at 67-71 (discussing permitting practices generally).

²⁸⁰ See *supra* notes 272-73 and accompanying text.

²⁸¹ *New York v. EPA*, 413 F.3d at 37.

²⁸² See *id.* at 27-28. The extent of this benefit depends on how the historic baseline is set. Critics of the 2002 rule changes objected that they allowed the facility to use any two years in the prior ten to establish the PAL, potentially resulting in a cap higher than recent actual emission levels. See *id.* The reviewing court accepted EPA’s contention that this

Therefore, a case can be made that, at least as applied to organizations that are committed to innovation and pollution prevention, the use of PALs is likely to be good for the environment. A review by EPA of facilities that had piloted the use of PALs and other related permitting flexibilities found that they consistently reduced emissions over time, sometimes very significantly.²⁸³ While it is possible that such reductions might have been made under a standard permitting regime, the consistent pattern of emission reductions suggests that the absence of permitting costs encouraged more frequent process changes. At the very least, the results show that facilities may reduce pollution even when not compelled to by regulation, and that modifying the NSR rules does not necessarily lead to pollution increases in absolute terms.

So why were environmentalists so vehemently opposed to the NSR changes?²⁸⁴ First, they were chiefly concerned with a different set of regulated facilities than the supporters of the rule. Whereas supporters focused on firms that needed to make frequent process changes and would likely incorporate pollution prevention into those changes, critics looked at those who were likely to avoid reducing emissions for as long as possible. In the extreme case, power plants built before the NSR provisions were enacted managed to avoid installing readily available and affordable controls for decades by carefully avoiding any “modification” to their emissions sources.²⁸⁵ These power plants represent very significant sources of pollutants that are genuine health threats.²⁸⁶ While some firms would use the flexibility afforded by PALs in desirable ways, others could simply avoid installing new pollution controls.²⁸⁷

would occur only infrequently. *Id.* at 29.

²⁸³ *Id.* at 37. For results of the full study, see U.S. ENVTL. PROT. AGENCY, EVALUATION OF IMPLEMENTATION EXPERIENCES WITH INNOVATIVE AIR PERMITS, http://www.epa.gov/ttncaa1/t5/memoranda/iap_eier.pdf (last visited Dec. 1, 2006).

²⁸⁴ It should be noted that the facility-wide caps focused on here were not the most controversial aspects of the NSR revisions. The most strenuous attacks were directed at the adjustments in the exemption for routine maintenance (which did not have the same environmental advantages). *New York v. U.S. Env'tl. Prot. Agency*, 443 F.3d 880 (D.C. Cir. 2006) (striking down expansion in scope of exemption). Nevertheless, critics of the rule did not indicate any support for facility-wide caps; at best, they were attacked less vociferously. For a defense of traditional NSR, see Driesen, *supra* note 123, at 187-92.

²⁸⁵ See A BREATH OF FRESH AIR, *supra* note 270, at 1-2.

²⁸⁶ *Id.* at 2.

²⁸⁷ PALs could simultaneously facilitate pollution prevention and weaken requirements for installation of end-of-pipe controls (which facilities would be unlikely to install absent regulatory pressure). The net effect would depend on the circumstances of each facility.

Furthermore, there would be fewer opportunities for agency oversight and public input under the PAL approach because permitting reviews would be less frequent. Given the low degree of trust between environmental groups and industry, oversight is seen as an important aspect of the regulatory system.

Third, critics used a different "baseline" in judging the effect of the new rules. A proponent of the rule changes could compare the PAL to the permit limits previously in effect (the PAL being necessarily lower because it is based on actual historic levels). A critic, on the other hand, would likely focus on the potential for the PAL to be higher than recent annual emissions levels because the rule allows earlier time periods to serve as the limit.

Thus the argument over PALs exemplifies the apparent conflict between an approach that emphasizes regulatory control and one that focuses more on creating flexibility for innovative ways to reduce emissions over time. The dilemma for those revising the NSR program was that, in order to provide the flexibility that might empower those oriented toward improved performance, they risked weakening their impact on those who would simply use the flexibility to avoid adopting stronger controls. In other words, flexibility created the opportunity for improved performance, but not the pressure to pursue it. Differing perspectives on how firms would likely behave created a deep gulf between proponents and opponents of regulatory flexibility; regulators who believed that firms have internal incentives to reduce emissions over time supported it, while those who deeply suspect corporate motivations were unwilling to live with anything other than legally-mandated emissions reductions.²⁸⁸

V. WHERE WE ARE AND WHERE WE ARE GOING: AN ASSESSMENT

How much has the system of environmental protection actually changed in the past decade? It has certainly evolved. The programs and initiatives discussed in Part III document concrete and, in some cases, lasting change in the strategies being used by environmental agencies and other players in the environmental protection system, including both businesses and environmental groups. These developments have taken place at both the state and federal levels, and under both Republican and

²⁸⁸ This raises the interesting question of whether PALs might have been made available only to firms with a sustained history of reducing emissions through pollution prevention. Critics would likely have remained skeptical about the prospects for long term performance, even in such cases.

Democratic leadership.²⁸⁹ It would be hard, therefore, to pigeonhole them as artifacts of a particular political circumstance or the pet projects of a particular party or individual agency leader.

At the same time, when one steps back and looks at the broad regulatory landscape, its main features have not changed as dramatically as might first appear. Regulatory functions remain the “core” functions of environmental agencies, and the traditional functions of writing and enforcing rules continue to dominate the attention of senior officials and their counterparts in regulated organizations. “Alternative” strategies remain just that. The preceding case studies illustrate some of the difficulties in moving to an “alternative” regime.

This Part will look at the degree to which various elements of the alternative model have been adopted, and will analyze why they have been adopted in some cases and not in others. Finally, it will discuss predictions about likely future developments and close by returning to the question of appropriate corporate behavior.

A. *Where We Are Today*

Some regulatory changes could be considered harbingers of an “alternative model.” Performance-based permits have been adopted under the New Source Review program,²⁹⁰ for example, and trading programs are increasingly common in major new rules regulating air pollution.²⁹¹ Guidance on effluent trading under the Clean Water Act has also been issued,²⁹² and an increasing number of such trading programs are now

²⁸⁹ See *supra* Part IV.

²⁹⁰ See Hirsch, *Lean and Green?*, *supra* note 46, at 630-38.

²⁹¹ Trading has been extended from the statutorily mandated scheme in Title IV of the Clean Air Act, 42 U.S.C. §§ 7651-7651m (2004). See, e.g., Standards of Performance for New Existing Stationary Sources: Electric Utility Steam Generating Units, 70 Fed. Reg. 28,606 (May 18, 2005) (establishing new mercury emissions standards); Rules to Reduce Interstate Transport of Fine Particulate Matter and Ozone (Clean Air Interstate Rule), 70 Fed. Reg. 25,162 (May 12, 2005).

²⁹² See Issuance of Final Water Quality Trading Policy, 68 Fed. Reg. 1608 (Jan. 13, 2003); see also Environmental Protection Agency, Water Quality Trading: 2003 Water Quality Trading Policy, <http://www.epa.gov/owow/watershed/trading/tradingpolicy.html> (last visited Dec. 1, 2006) (providing EPA documents discussing the 2003 Water Quality Trading Policy); Environmental Protection Agency, Water Quality Trading: Trading Projects and Links to Other Information, <http://www.epa.gov/owow/watershed/tradelinks.html> (last visited Dec. 1, 2006) (providing information on trading programs in operation or under consideration).

being adopted.²⁹³ These programs have alternative elements in that they are not “command and control” strategies, but they are “standard model” approaches because the government still establishes requirements with which regulated organizations must comply. The relationship remains arms-length and is governed by legal norms and processes. These approaches also tend to emphasize cost savings; environmental benefits may result, but are indirect effects. Ironically, strategies that are cheaper but not necessarily cleaner seem to be easier to implement in practice than the win-win solutions that proponents of the alternative model usually stress.²⁹⁴ In any case, significant changes have been the exception more than the rule. The pre-existing regulatory structure as a whole remains largely in place, and the changes that have been made have often been highly controversial.²⁹⁵

Innovation has occurred within traditional enforcement programs, although not without some controversy. As noted above, both EPA and the states have adopted policies, rules or even legislation allowing some enforcement relief where organizations voluntarily self-audit, report violations to the authorities, and correct them promptly.²⁹⁶ There was heated debate between EPA and the states over precisely how far such policies could extend. For example, EPA did not recognize an evidentiary privilege, and warned states that they might lose their authority to enforce federal requirements if they applied privileges too broadly.²⁹⁷ However, these arguments were resolved, and agreed-upon policies remain in place at both the federal and state levels. Perhaps of greater interest here, however, are the results attained after applying these policies for a

²⁹³ See Environmental Protection Agency, Water Quality Trading: Trading Projects and Links to Other Information, <http://www.epa.gov/owow/watershed/trading/tradelinks.html> (last visited Dec. 1, 2006) (linking to a variety of trading projects).

²⁹⁴ The environmental benefits of more flexible regulation should not be underestimated. As previously noted, facilities participating in a pilot program on flexible air permits consistently made significant reductions in emissions even though such reductions were not required by the permits. See *supra* note 283 and accompanying text. While a cause and effect relationship cannot be proven, this suggests that removing regulatory barriers can have significant environmental benefits.

²⁹⁵ For a discussion of the controversy surrounding the New Source Review rules, see *supra* Part IV.C. The trading component of the mercury rule was also criticized. See, e.g., *Look to the States for Cleaner Air*, N.Y. TIMES, June 3, 2006, at A12.

²⁹⁶ See Alexander Pfaff & Chris William Sanchirico, *Big Field, Small Potatoes: An Empirical Assessment of EPA's Self-Audit Policy*, 23 J. POL'Y ANALYSIS & MGMT. 415, 416 (2004).

²⁹⁷ See Pfaff & Sanchirico, *supra* note 296, at 417.

number of years.²⁹⁸ At least at the federal level, the bulk of the violations reported were relatively minor in nature.²⁹⁹ Since these violations would have been low priorities for enforcement action, it is not clear that the policies had the desired effect of allowing EPA to make better use of its enforcement resources.

Progress has also been made in the use of information as a tool. As noted, the Toxics Release Inventory is well established and seems to have had some significant impacts on emissions.³⁰⁰ EPA’s website makes information that was previously buried in agency files readily available to the public. For example, enforcement databases can now be accessed online.³⁰¹ Non-governmental efforts such as the Global Reporting Initiative,³⁰² or the Environmental Sustainability Index (“ESI”) maintained by Yale and Columbia Universities,³⁰³ are also significant. Critics contend, however, that more could be done to fully realize the potential of information as a tool.³⁰⁴ Relatively little information is available, for example, on measures of environmental performance other than compliance or emissions figures, or on comparative performance among facilities in the same industry.³⁰⁵

Efforts to adopt multimedia regulation have made very limited progress. It is difficult even to pilot test such approaches within media-based statutory and organizational frameworks, and without piloting, it is difficult to determine whether the benefits of a system-wide overhaul would justify the cost involved. The most notable development was New Jersey’s experiment with multimedia permitting in the 1990s.³⁰⁶ Although the state passed legislation and the program had support from top leadership, it earned a reputation for burden and delay.³⁰⁷ Ultimately, the program was terminated after issuing only sixteen permits.³⁰⁸ Whether the high cost was

²⁹⁸ See *id.* at 421-28.

²⁹⁹ *Id.* at 424.

³⁰⁰ Case, *Corporate Environmental Reporting*, *supra* note 177, at 386-87.

³⁰¹ See Environmental Protection Agency, Enforcement and Compliance History Online, <http://www.epa.gov/echo/> (last visited Dec. 1, 2006).

³⁰² See Global Reporting Initiative, <http://www.globalreporting.org> (last visited Dec. 1, 2006).

³⁰³ See Environmental Performance Measurement Project, 2005 Environmental Sustainability Index, <http://www.yale.edu/esi> (last visited Dec. 1, 2006).

³⁰⁴ Case, *Corporate Environmental Reporting*, *supra* note 177, at 412 (observing that efforts to legislate further use of informational tools are at a standstill).

³⁰⁵ See *id.*; see also ENVIRONMENT.GOV, *supra* note 9, at 170-73 (noting the limitations of EPA’s effort to create an information program).

³⁰⁶ DAVIES ET AL., *supra* note 132, at 75.

³⁰⁷ *Id.* at 76-77.

³⁰⁸ *Id.* at 77.

inherent in multimedia permitting, reflected the difficulty of going against the organizational grain, or simply reflected more careful attention to these particular permits by the reviewing staff, is an open question.³⁰⁹

Similarly, sector-based initiatives have been used on a limited scale, but not to the extent that had been anticipated. A high-profile program in the Clinton administration produced relatively little real programmatic change.³¹⁰ A lower-profile successor program works with business sectors to identify strategies that the industry is willing to adopt on a voluntary basis.³¹¹ While this program seeks to address regulatory barriers to improved performance, it is hardly a fundamental reordering of the media-based regulatory structure.³¹² A sector-based, multimedia strategy for regulating small sources developed in Massachusetts has begun to spread to other states, but its main emphasis is on improving compliance rather than creating a system for continuous improvement.³¹³ A truly ambitious effort, along the lines of the Dutch "covenant" system,³¹⁴ would challenge sectors to improve performance dramatically, give them a role in determining the plan for improvement, and create enforceable commitments. However, nothing like this has been attempted, let alone realized, in the United States.

Programs offering tailored regulatory flexibility in exchange for superior performance have had a particularly difficult existence. Although the search for cleaner, cheaper, and smarter alternatives might seem broadly appealing, it apparently did not materialize to a level that made the new administration anxious to embrace the results.³¹⁵ Many of the

³⁰⁹ See ENVIRONMENT.GOV, *supra* note 9, at 56 (noting high transaction costs); Barry G. Rabe, *Permitting, Prevention and Integration: Lessons from the States*, in ENVIRONMENTAL GOVERNANCE 14 (Donald F. Kettl ed., 2002) (describing the organizational challenges of implementing the multimedia permit program).

³¹⁰ See RESOLVING THE PARADOX, *supra* note 7, at 17-19; Case, *The EPA's Environmental Stewardship Initiative*, *supra* note 1, at 41-43, 50-51.

³¹¹ See Environmental Protection Agency, Sector Strategies Program, <http://www.epa.gov/sectors/> (last visited Dec. 1, 2006) (describing EPA's "Sector Strategies Program").

³¹² See *id.* Some states are also experimenting with sector-based performance agreements. For example, Wisconsin's "Green Tier" program has entered into an agreement with real estate developers. Wisconsin Department of Natural Resources, Green Tier: Wisconsin Builders Association Development Council Charter, <http://dnr.wi.gov/org/caer/cea/environmental/participants/eccodev/index.htm> (last visited Dec. 1, 2006).

³¹³ See *supra* note 138 and accompanying text.

³¹⁴ See *supra* note 132 and accompanying text.

³¹⁵ As discussed earlier, the Clinton-era Project XL was never formally terminated, but the Bush administration did not solicit new proposals. See *supra* notes 182-84 and accompanying text. In contrast, the Bush administration fully embraced the "brownfields"

ambitious programs legislated by states were implemented modestly and in some cases were terminated.³¹⁶

“Leadership” programs have had greater success, at least in terms of replication and longevity. Such programs have been adopted by a growing number of states as well as by EPA.³¹⁷ They have been relatively uncontroversial, although criticism has surfaced occasionally.³¹⁸ At the same time, the original vision of an “alternative path,” in which well-managed organizations could qualify for an entirely different regulatory regime, remains highly elusive. Most programs provide relatively limited incentives (e.g., recognition) for relatively limited achievements (e.g., good compliance records and adoption of an EMS).³¹⁹ Formal regulatory incentives are few in number and generally narrow in scope.³²⁰ Although the number of participants in such programs continues to grow, the programs still enroll only a tiny percentage of regulated organizations.³²¹

What about alternatives to regulation? At both the federal and state level, the past ten years have seen a proliferation of non-regulatory programs seeking to improve environmental performance and encourage

program, another innovative strategy that proved highly popular with local governments. *See, e.g.*, Remarks of EPA Administrator Christina Todd Whitman at the Seventh Annual Brownfields Conference (Nov 13, 2002), <http://www.epa.gov/newsroom/index> (follow the “Speeches” hyperlink; then follow “Earlier Speeches” hyperlink until finding speech dated Nov. 13, 2002; follow the “Seventh Annual Brownfields Conference” hyperlink).

³¹⁶ *See supra* notes 182-84 and accompanying text. The exception is Wisconsin, which has advanced from a small-scale program for providing site specific flexibility to a larger “Green Tier” program, although not without difficulties in the legislative process. *See supra* Part III.C.1.

³¹⁷ *See supra* Part III.C.2.

³¹⁸ *See* Press Release, Eric Schaeffer, *supra* note 114 (claiming that pollution increased at ten of the thirteen original “Performance Track” facilities). Despite such occasional criticism, Performance Track and other leadership programs have not attracted anything like the volume of adverse comment that was directed at Project XL.

³¹⁹ *See supra* notes 196-97 and accompanying text.

³²⁰ *See supra* notes 198-201 and accompanying text.

³²¹ Performance Track now has approximately 400 members. *See* Environmental Protection Agency, National Environmental Performance Track, *supra* note 192. Some state programs have also become quite large. For example, Michigan’s Clean Corporate Citizen program listed over eighty members in 2004. MICH. DEP’T OF ENVTL. QUALITY, MEET MICHIGAN’S CLEAN CORPORATE CITIZENS 3-4 (2004), *available at* <http://www.deq.state.mi.us/documents/deq-ess-p2tas-c3-c3report2004.pdf>. It can be argued, of course, that such programs affect the behavior not only of enrolled participants, but also of those tempted to join, or more indirectly, those who are not interested in joining but do not want to have visibly worse records than their most prominent competitors.

an ethos of stewardship.³²² These programs take so many forms that it is potentially misleading to generalize about them. Although some have attracted criticism, and questions about their efficacy persist, the programs appear to be a permanent feature of the governmental landscape, as indicated by EPA's recent strong endorsement of "stewardship" as an agency goal.³²³ While they may be viewed skeptically by some as a weak excuse for failure to take more aggressive action, they are often used where regulation would be unlikely, such as to encourage purchases of energy-efficient products,³²⁴ improve product design,³²⁵ or reduce driving by recognizing the "best workplaces for commuters."³²⁶ In areas where regulation may ultimately occur, such programs may have value in raising public awareness and rewarding businesses that are early actors.³²⁷

Nevertheless, agencies continue to struggle to define their role in promoting goals such as stewardship, pollution prevention, and sustainability, as well as to define these efforts within the larger portfolio of agency activities.³²⁸ A few programs have found effective non-regulatory motivators,³²⁹ but to date, most rely on some mix of exhortation, providing useful information and benchmarking behavior, and removing some incidental regulatory barriers.³³⁰ Despite their growth in numbers and

³²² See *supra* notes 160-63 and accompanying text.

³²³ Stephen L. Johnson, *Preface* to EVERYDAY CHOICES, *supra* note 182, at iii, iii ("I believe [stewardship] is the next step in an ongoing evolution of policy goals from pollution control to pollution prevention and sustainability.")

³²⁴ See About Energy Star, http://www.energystar.gov/index.cfm?c=about.ab_index (last visited Dec. 1, 2006).

³²⁵ See Environmental Protection Agency, Design for the Environment, Partnerships for a Cleaner Future, <http://www.epa.gov/dfe> (last visited Dec. 1, 2006).

³²⁶ See Best Workplaces for Commuters, Program Overview, <http://www.bwc.gov/about/overview.htm> (last visited Dec. 1, 2006) (describing the "Best Workplaces for Commuters" program). For a reflection of the sheer number of partnership incentive programs, see Environmental Protection Agency, Partnership Programs, www.epa.gov/partners (last visited Dec. 1, 2006).

³²⁷ In a regulatory context, early movers are not necessarily rewarded. Laggards incur mandated expenses later and avoid the risk of investing in a technology that is not compatible with the rules ultimately adopted. If a rule requires reductions from pollution levels at the time it is adopted, those who make reductions earlier are penalized again.

³²⁸ See Geiser, *supra* note 61, at 431-37 (discussing changing tactics and a lack of progress in implementing pollution prevention).

³²⁹ An example of this is the increased market value of products being awarded the "Energy Star" label. See About Energy Star, *supra* note 324.

³³⁰ Some programs use one of these approaches; others combine them. An example of "exhortation" would be the "Great American Woodstove Changeout Campaign," which uses public information campaigns to encourage replacement of older and dirtier

size, non-regulatory programs continue to be viewed as something other than “core” programs, and most command very small budgets.³³¹ For the most part, they operate separately from regulatory programs and do not have the guarantee of long-term existence that accompanies statutory mandates. Therefore, when budgets tighten, such programs are potentially more vulnerable.

The most successful non-regulatory strategy is probably the variety of efforts that can be grouped under the broad heading of “collaboration.” At all levels of government, purely unilateral agency action is an increasingly uncommon response to major environmental problems, as opposed to facility-specific enforcement or relatively narrow rulemaking. Partnerships are an increasingly favored approach, whether the subject is watershed restoration,³³² controlling toxic exposures in communities,³³³ or redeveloping brownfield sites.³³⁴ Many major rules have some element of stakeholder consultation, often involving formal advisory committees.³³⁵

woodstoves. See Environmental Protection Agency, Woodstove Changeout Campaign, <http://www.epa.gov/woodstoves/changeout.html> (last visited Dec. 1, 2006). Programs such as Energy Star and Best Workplaces for Commuters create quantitative benchmarks to distinguish the best performers, relying on public awareness to reward those companies or products. See *supra* notes 324-26 and accompanying text. Performance Track addresses some regulatory barriers; so have rules, such as those removing regulatory disincentives to recycling of used computers. See Hazardous Waste Management System: Modification of the Hazardous Waste Program; Cathode Ray Tubes; 71 Fed. Reg. 42,928 (July 28, 2006).

³³¹ See EVERYDAY CHOICES, *supra* note 162, at 7 (stating that programs devoted to stewardship account for only 1.6 percent of EPA’s budget).

³³² See, e.g., Environmental Protection Agency, 2005 Targeted Watersheds: Summaries, <http://www.epa.gov/owow/watershed/initiative/2005projsumm.pdf> (last visited Dec. 1, 2006) (describing various local watershed partnerships and collaborative ventures); Potomac Watershed Partnership, <http://www.potomacwatershed.net> (last visited Dec. 1, 2006).

³³³ See Environmental Protection Agency, Community Action for a Renewed Environment, <http://www.epa.gov/care> (last visited Dec. 1, 2006) (describing community-based toxics reduction collaborations).

³³⁴ See, e.g., South Florida Regional Planning Council, The Brownfields Partnership, <http://www.sfrpc.com/brwnflds.htm> (last visited Dec. 1, 2006) (describing brownfields partnership in southern Florida).

³³⁵ See, e.g., Revisions to Regulations Governing the New Source Review Program, 67 Fed. Reg. 80,185 (Dec. 31, 2002) (showing that changes in clean air rules reflect recommendations of Clean Air Act Advisory Committee); Revisions to Water Quality Planning and Management Regulation, 65 Fed. Reg. 43,586 (July 13, 2000) (showing that changes in clean water rules were based on advisory committee recommendations).

This does not mean that collaborative processes have always proven superior. For example, regulatory negotiations (“reg-negs”) were at one time considered mechanisms to avoid protracted litigation, but, while improving the satisfaction of participants, turned out to be time-consuming and inadequate to consistently prevent litigation.³³⁶ The cost and complexity of such multiparty negotiation proved problematic in smaller scale efforts (such as the facility-specific XL projects), while the earlier vision of widespread regulatory tailoring through “command and covenant”³³⁷ has proven to be harder than expected.

It is worth noting that collaborative strategies lie on the boundary between standard and alternative models. They are “alternative” in that agencies are not unilateral decision-makers operating through formal legal structures and at arm’s length from other actors. If collaborations are successful, agencies may codify the decision of the group, but often may not be the principal implementers of the agreement.³³⁸ However, the negotiations often take place, to varying degrees, in the shadow of regulation—either actual or anticipated—or of some other potential agency action. Therefore, the regulatory framework still serves in many cases as a reference and starting point.

In short, while there has been significant change, the operative model in most agencies remains “standard” much more than “alternative.” The most successful innovations have been those that could be integrated into regulatory programs such as performance-based approaches and trading,³³⁹ or requirements for reporting information.³⁴⁰ Collaborative strategies have increasingly become a normal way of doing business.³⁴¹ On the other hand, multimedia approaches, such as permitting or sector-based programs,³⁴² have had greater difficulty because of their incompatibility with the existing statutory structure. While non-regulatory strategies for improving performance “beyond compliance” are

³³⁶ DRIESEN, *supra* note 100, at 119-20 (observing that reg-negs have been time-consuming); Langbein & Kerwin, *supra* note 92, at 614-15, 625 (concluding that reg-negs did not necessarily reduce litigation).

³³⁷ Elliott, *supra* note 88, at 183-85 (suggesting replacement of “command and control” with “command and covenant”).

³³⁸ For example, EPA worked with a stakeholder group to develop the “all appropriate inquiry” rule. However, the rule is chiefly implemented through private real estate transactions. *See* 70 Fed. Reg. 66,070 (Nov. 1, 2005).

³³⁹ *See supra* notes 121-24 and accompanying text.

³⁴⁰ *See supra* notes 177-81 and accompanying text.

³⁴¹ *See supra* notes 171-76 and accompanying text.

³⁴² *See supra* notes 132-41 and accompanying text.

increasingly common,³⁴³ they are not integrated into traditional core programs and still have the appearance of temporary initiatives rather than permanent organizational features. Ambitious “alternative path” strategies such as Project XL have proven difficult to sustain,³⁴⁴ while leadership programs have been hardier but offer limited flexibility and reach only a small fraction of the relevant universe.³⁴⁵

Thus, within agencies, the two models co-exist but are not fully integrated; in fact, tension often exists between them.³⁴⁶ At the most fundamental level, two different organizational cultures exist with very different world views.³⁴⁷ These views manifest themselves in internal policy disputes. For example, those oriented toward enforcement fear that leadership programs could provide a safe haven for companies that are less reliable than they purport to be. Conversely, those in assistance-oriented programs such as prevention tend to see regulatory or enforcement programs as creating unnecessarily adversarial relationships with the regulated community. In addition, competition inevitably surfaces over access to resources, especially in tight budget times.³⁴⁸

From the business side, there is also ambivalence about active government participation. Those who set more ambitious goals than required by law, or build sustainability into their business plans, obviously want to retain control of their own plans and be free to set aspirational goals that may or may not be accomplished. Formalizing a partnership with government, even in an entirely voluntary program, may mean making commitments that restrict future flexibility.³⁴⁹ It may also bring enhanced attention, which is not always a positive thing.³⁵⁰ Many opt not to participate, even in programs that would give them public recognition for desirable steps they are taking anyway.

³⁴³ See *supra* notes 329-35 and accompanying text.

³⁴⁴ See *supra* notes 182-91 and accompanying text.

³⁴⁵ See *supra* notes 192-207 and accompanying text.

³⁴⁶ See MALCOLM K. SPARROW, *THE REGULATORY CRAFT: CONTROLLING RISKS, SOLVING PROBLEMS, AND MANAGING COMPLIANCE* 184 (2000) (describing a clash of cultures between adherents of “preventive” and “reactive” approaches in a variety of regulatory contexts).

³⁴⁷ See *id.*

³⁴⁸ *Id.*

³⁴⁹ For example, enforceable emissions caps set by PALs may get lower over time because they are determined using a plant’s historic emissions data for the previous ten years. See *supra* notes 287-88 and accompanying text.

³⁵⁰ See Press Release, Eric Schaeffer, *supra* note 114 (calling public attention to increases in emissions at facilities participating in an EPA program for environmental leaders).

Thus, the transition toward a multipolar, less rule-driven system in which businesses take leadership, partner with government, and focus on continuous improvement rather than compliance, is incomplete at best. Each model has its strengths and weaknesses: the standard model has proven effective in changing behavior, yet in an inefficient and somewhat uneven way.³⁵¹ The alternative model offers greater efficiency and the prospect of continuous improvement, but has yet to demonstrate clearly effective alternatives to traditional legal requirements.³⁵²

B. Predicting the Evolution of the System

Clearly, environmental agencies face some important decisions. On one hand, it appears likely that “standard model” regulation will play a major, if not dominant, role in environmental protection for many years. The authority to issue and enforce legal requirements is the feature that most notably sets government apart from other actors in the environmental protection system, and will undoubtedly continue to define what the public expects from government agencies. It is also where agencies will likely continue to invest the bulk of their efforts. The government’s unique role in promulgating and enforcing regulations is clear, while its part in advancing environmental goals through other means is less so.³⁵³

At the same time, agencies risk losing their position of leadership if they fail to redefine their mission from that of mere statutory implementation to achieving ambitious goals such as sustainability. It is difficult to imagine returning to a world in which agency programs are limited almost exclusively to writing and enforcing rules. An increasing number of businesses and other organizations are taking environmentally beneficial steps not required or even addressed by regulations (such

³⁵¹ See Elliott, *supra* note 88, at 172-73.

³⁵² See Geiser, *supra* note 61, at 436 (arguing that, despite other advantages, pollution prevention cannot replace regulation because it requires “strong . . . enforcement programs as policy drivers”).

³⁵³ These non-regulatory programs are also run by non-governmental actors such as trade associations and environmental groups. See, e.g., Responsible Care: The U.S. Chemical Industry Performance Initiative, <http://www.responsiblecare-us.com/about.asp> (last visited Dec. 1, 2006) (summarizing the American Chemistry Council’s “Responsible Care” program, which is designed to help companies “go above and beyond government requirements”); see also Deutsch, *supra* note 170, at G-1 (industry partnerships with Environmental Defense).

as committing to reduce greenhouse gas emissions),³⁵⁴ and agencies cannot afford to ignore these developments or fail to participate in them. The question for agencies, then, is how to operate in "standard" and "alternative" modes simultaneously.³⁵⁵

It may be useful here to distinguish between three general categories of alternative model strategies. The first are those involving reforms within the regulatory structure, such as making rules more performance-based and using trading systems where possible. Multimedia strategies, although they have had limited progress to date, are not inherently incompatible with traditional regulatory structures and could be used with appropriate changes in the statutory structure.³⁵⁶ Requirements for disclosure of information also fall into this group. Although these types of reforms tend to emphasize cost savings and do not directly address the problem of encouraging continuous improvement, a less prescriptive and more integrated regulatory system could have both economic and environmental benefits.³⁵⁷

A second group of strategies uses the existing regulatory structure as a starting point, but allows for negotiation and collaboration to develop superior alternatives.³⁵⁸ This involves a greater departure from the purely law-driven model, but legal requirements are still a significant driver of action. It might involve redesigning regulatory requirements for particular firms or industries, or designing large-scale responses to location-based environmental problems that require the involvement of many governmental and non-governmental parties. Experience to date suggests that the latter model is more likely to be

³⁵⁴ See *supra* notes 69-70 and accompanying text.

³⁵⁵ See SPARROW, *supra* note 346, at 194-203.

³⁵⁶ It should be noted that one of the chief attractions of a multimedia approach has been that it may be more compatible with broad goals such as sustainability, as well as specific strategies such as pollution prevention. See *supra* notes 134-41 and accompanying text. However, simply creating a multimedia regulatory structure would not necessarily help advance these goals and strategies.

³⁵⁷ As already discussed, experiments with using regulatory flexibility to stimulate superior performance (e.g., offering tailored and more flexible regulation to superior performers) have been conceptually appealing, but the experience to date has proved more difficult than expected. See *supra* notes 245-47 and accompanying text. Perhaps the best opportunity to pursue this approach is at the state level, where agencies are closer to local circumstances and in the best position to develop tailored agreements. The federal role could be a mix of support and oversight, both creating the room for states to operate such programs and ensuring that they do not become vehicles for backsliding.

³⁵⁸ See Elliott, *supra* note 88, at 182-84.

used than the former because the transaction costs involved tend to be prohibitive except on a large scale. This group also includes programs that take place in the absence of regulation, but in anticipation of possible future regulation.³⁵⁹

The third and most challenging category involves strategies for encouraging behavior that is difficult to reach through regulation, such as pollution prevention, environmental management systems, product stewardship, and other forms of environmental stewardship.³⁶⁰ These strategies are perhaps the most important in that they alone promote continuous improvement toward sustainability. At the same time, they seem very difficult to integrate with "core" environmental programs. Agencies face a dilemma in this area: on one hand, the goals are too important to ignore; on the other, it is not always clear what role government can play that is likely to have a significant, long-term impact. For these programs to be accepted as fully equivalent to traditional regulatory systems, agencies will have to do a better job of articulating how they are expected to achieve results where the government's role is not legally mandated. They will also have to be disciplined in defining the management expectations of such programs and ensuring that those expectations are met, which should protect against the possibility of ineffective and superficial efforts substituting for genuine action.

In short, the alternative model does not appear to be ready to supersede the standard one anytime soon. More likely, alternative strategies will gradually grow in significance while both operate in parallel. The alternative model cannot replace the standard model because, at least to date, it often lacks tools comparable in effect to the enforcement of legal requirements.³⁶¹ At the same time, it will continue to be attractive because of its potential ability to achieve more ambitious goals with less economic burden.³⁶² The two models therefore may work best in tandem: standard model strategies create the pressure for improvement, while alternative strategies can be offered up to those willing to assume leadership.

³⁵⁹ See *supra* notes 332-38 and accompanying text.

³⁶⁰ A related but distinct category is that of problems that can be addressed through regulation, but for which regulatory authority has not been used, such as greenhouse gases at the federal level.

³⁶¹ See Geiser, *supra* note 61, at 436.

³⁶² See *supra* notes 34-37 and accompanying text.

The greatest challenge for agencies will be to articulate, both for themselves and for the public, the logic of this two-pronged strategy. Agencies will have to define more clearly the relationship between the two broad functions, and in particular explain the role that non-regulatory strategies have in a government organization. This must be done in a way that avoids suggesting that “alternative” strategies reflect a softening or compromising of regulatory strategies. Rather, they can in theory be a different route to achieving the same or more ambitious goals, thus doing it the “easy way” rather than the “hard way.” This also means taking steps to ensure that the practice conforms to the theory and that nontraditional strategies are not used simply to avoid taking difficult or unpopular actions.³⁶³

C. *The Role of Government and the Role of Business*

Returning to the central focus of this Symposium: in an evolving system of environmental protection, what is the role of business? A changing role for government implies a change in our expectations of business as well. The answer given by the standard model is typical of legal and economic perspectives: the role of business is to pursue its own self-interest, and the role of government is to correct errors (i.e., “market failures”) by adopting and enforcing rules.³⁶⁴ Interaction is arms-length and “black-box,” minimizing transaction costs.

The alternative model does not fundamentally change this view of business motivation. Specifically, it does not call on businesses to act

³⁶³ Analyzing a very similar tension between enforcement strategies that emphasize catching violators and those that emphasize crime prevention, Professor Sparrow argues that while it is desirable for agencies to use both strategies—a “balanced” approach—this still falls short of the optimal “integrated” approach. SPARROW, *supra* note 346, at 194-95, 202-03. An agency using a “balanced” approach will create units that utilize different kinds of tools (e.g., enforcement, pollution prevention), which then operate independently. *Id.* at 195-96. An “integrated” approach, on the other hand, begins by focusing on priority problems, and then selects the best tools (or combination of tools) to solve them. *Id.* at 201-02. Sparrow argues that the latter is superior because it allows the agency to be more certain that it is focusing on the most important problems and can demonstrate what is being done to address them. *See id.* at 203. The discussion above suggests that, for now, a “balanced” approach may be the best solution environmental agencies can hope for; however, the ultimate goal should remain full integration of “standard” and “alternative” models. *Id.* at 202-03.

³⁶⁴ *See Geiser, supra* note 61, at 436.

altruistically.³⁶⁵ Rather, it considers the possibility that business self-interest is more complex than conventionally assumed. It is not simply that some actions by businesses may benefit both the environment and the corporate bottom line; this has long been recognized, even if past assumptions about the rarity of this potential have kept it from being fully explored. Equally important is the fact that businesses vary in their tendency and capacity to pursue strategies of this kind.

Recognizing this fact opens up the "black box" of corporate behavior. First, it suggests that even within the zone of "self-interest," businesses face choices that have significant societal consequences. Second, it suggests that part of the government's job may be to encourage businesses to find such opportunities. This could take place in a variety of ways: business and government may partner in non-regulatory programs; agencies may publicize the best performers as well as punishing the worst; agencies may create more flexibility within the regulatory system to remove impediments to desirable behavior. While government is still the primary moving force in the system of environmental protection, businesses may also provide leadership, particularly in developing better strategies for achieving environmental goals, but also in identifying problems that might be overlooked by the existing regulatory system. Moreover, since encouraging more socially beneficial conceptions of business self-interest does not necessarily rely on legal compulsion, it can be provided by non-governmental actors such as environmental groups, trade associations, or even academic institutions. All of this adds up to a much more complex picture than that provided by standard approaches to defining corporate legal obligations.

CONCLUSION

It is clear that the standard model is not on its way out. Alternative-model thinking identifies limitations in legalistic solutions to environmental problems, but to date has not found an easy pathway to the optimal outcome. Businesses have the technical capacity to find better solutions than those imposed by government, but still lack the motivation to do so in many cases. While regulation falls short of the ideal because it does not reward continuous improvement, regulators have yet to find a tool that creates the appropriate stimulus consistently

³⁶⁵ See Elliott, *supra* note 88, at 184 (observing that alternative systems allow companies to save costs).

and effectively. We can, therefore, expect both environmental policy and corporate law to remain more “standard” than “alternative” for a long time. At the same time, we should not reject the continuing search for ways to improve on the outcomes that have been achieved so far.