CHAPTER 1

Environmental Conflict Management and Dispute Resolution

ANN L. MacNAUGHTON AND JAY G. MARTIN *

Introduction

Sustainable development in a global economy requires a delicate long-term balance between human activity and nature’s ability to renew itself.\(^1\) Future prosperity depends both on preserving ecological treasures for the benefit of future generations and on continued economic growth and innovation.\(^2\) Since there will always be tension between industrial development and preservation of the environment, improved systems and techniques for managing the inevitable conflicts and resolving the inevitable disputes must be developed. This chapter provides an overview of significant characteristics of environmental disputes, regardless of substantive context; an analytic framework for improving environmental dispute resolution (EDR) outcomes; and an overview of how environmental management systems can be used to improve EDR results.

Thirty years ago, the U.S. Congress recognized the potential for conflict between environmental protection and economic development objectives and established a national policy of sustainable development:

The Congress, recognizing the profound impact of man’s activity on the interrelations of all components of the natural environment, particularly the profound influences of population growth, high-density urbanization, industrial expansion, resource exploitation, and new and expanding technological advances and recognizing further the critical importance of restoring and maintaining environmental quality to the overall welfare and development of man,
declares it is the continuing policy of the Federal Government, in cooperation with State and local governments, and other concerned public and private organizations, to use all practicable means and measures, including financial and technical assistance, in a manner calculated to foster and promote the general welfare, to create and maintain conditions under which man and nature can exist in productive harmony, and fulfill the social, economic, and other requirements of present and future generations of Americans. 

In the past 30 years, protection of environmental resources has become a worldwide concern. Contaminated soil, air, and water are perceived as serious threats in industrialized countries that previously measured quality of life in terms of material output. At the same time, global demands for more comprehensive environmental regulation, such as the United Nations Framework Convention on Climate Change and its Kyoto Protocol to address global warming concerns, often are perceived by both developed and developing nations as inappropriate interference with sovereign authority; interference with efforts to monetize natural resources and alleviate conditions of poverty; uncompensated “takings”; or potential drags on robust economic development.

Echoing the above-quoted preamble of the National Environmental Policy Act of 1969 (NEPA), the World Commission on Environment and Development (Brundtland Commission) in 1987 defined “sustainable development” as development “that meets the needs of the present generation without compromising the ability of future generations to meet their own needs.” As the Brundtland Commission’s report goes on to explain, the concept of sustainable development contains within it two key concepts:

1. The concept of “needs,” in particular the essential needs of the world’s poor, to which overriding priority should be given; and
2. The idea of limitations imposed by the state of technology and social organization on the environment’s ability to meet present and future needs.

Along with governmental entities and other non-governmental organizations (NGOs), business organizations will play a vital role in the future of the planet. Publicity attendant to major industrial accidents, pressure from environment-sensitive consumers, loss of market share to more environmentally compliant competitors, increasingly costly regulations, continuing criminalization of environmental laws, expanding officer and director liability, continuing volatility in the insurance coverage marketplace, and increasing equity market focus on environmental performance metrics combine to
create powerful incentives for the creation of effective environmental risk management and EDR systems at initial project planning stages.

The late twentieth century witnessed three fundamental changes of significance to the development of sustainable solutions both domestically and internationally:

1. Environmental protection and economic development are no longer regarded as mutually exclusive goals. Systems and strategies are being developed to achieve sustainable economic development objectives.

2. Conflict management and dispute resolution are no longer regarded solely as cost centers; they are now seen as potential sources of seminal creativity, solutions, and improved relationships as well. Focus has shifted to systems and strategies for early identification of stakeholders, their interests, and the potential for effective and efficient conflict and resolution that can produce a stable investment environment; litigation avoidance through solutions-focused mechanisms for the joint development of enduring solutions; and the use of early resolution strategies for disputes and lawsuits.

3. Applications of technology are transforming global business realities by networking people in radically redefined patterns of interaction. Focus has shifted from systems for transporting people, and their voices and images, to systems for practically instantaneous distribution of information, accumulation of shared knowledge bases, and solutions development.

This book examines the impact of those changes on the development of EDR for long-term sustainable solutions. As pressure mounts for both robust economic growth and more stringent environmental regulation on a global level, those countries and companies that can successfully manage the tension between these two important objectives will have a significant advantage over those that are not able to meet this challenge.

**Common Characteristics of Environmental Conflicts and Disputes**

What do community disputes, civil and criminal enforcement matters, tort claims, and complex commercial litigation have in common when they arise in EDR contexts? First, they are often underlain by common scientific and technical facts, with many stakeholders having different but overlapping interests. For example, soil and groundwater contamination from a single in-
Industrial area may give rise to enforcement and compliance disputes with local, state, regional, federal, or international regulatory authorities; community allegations of personal injury and property damage; causation and damages disputes among various business enterprises; and related insurance coverage disputes. Second, the vast majority of EDR disputes typically involve many if not all of the common factors listed below:

1. Subject matter that crosses geographic and professional borders;
2. Optimum solutions outside the scope of judicial reach;
3. Scientific and/or economic uncertainty;
4. Cross-cultural issues and/or important values conflicts;
5. Multiparty dynamics;
6. Involvement of significant stakeholders outside the scope of any judicial proceedings; and
7. Extremely large economic stakes.

Each of these seven common attributes is discussed below.

**SUBJECT MATTER THAT CROSSES GEOGRAPHIC AND PROFESSIONAL BORDERS**

Four factors combine to stimulate continuing innovation in the development of conflict management and resolution mechanisms and strategies for disputes that involve the natural environment:

1. Environmental phenomena rarely respect geopolitical boundaries, and thus often require transnational solutions;
2. Many business enterprises are transnational in nature;
3. The investment community increasingly is looking to environmental performance as a key indicator of overall management quality; and
4. The emergence of interdisciplinary professional services firms is impacting how professional services are bundled (or unbundled), packaged, priced, and delivered.

*The Importance of Transnational Issues*

While natural resources are distributed and impacted through complex interactive systems of oceans, islands, species, and ecosystems, geopolitical borders are created by the interaction of people, communities, cultures, and sovereign states. Physical boundaries associated with environmental issues often do not correspond to the jurisdictional boundaries that constrain regulatory authorities.

Areas over which national jurisdiction is ambiguous or ineffective, but
which nevertheless must be protected to ensure continued human habitation on Earth (e.g., air and atmosphere; high seas and deep seabed; polar regions; and the planet’s magnetosphere and gravitational field in outer space) are sometimes referenced as our “international commons” or “global commons.” Increasing awareness about the risks of groundwater contamination, deforestation, soil erosion, global climate change and depletion of stratospheric ozone, species extinction, and other changes impacting these global treasures led in the late twentieth century to dramatically expanded international structures and agreements to address environmental problems that are global in effect. In addition, transnational regimes and regional agreements have been negotiated (and some have been ratified) to address environmental challenges that are neither universal nor specifically regional, such as various treaties addressing specific concerns in North America. Resolution of community disputes over road-building plans, interstate disputes over water rights, international disputes over transboundary pollution, and global disputes over climate change all require effective management of the requirements of multiple regulatory authorities.

Transnational Business Enterprises

To exacerbate the challenge of multijurisdictional compliance, an increasingly networked and still evolving global economy is changing how business enterprises perceive and manage legal and business risks. Rapid recent growth of e-mail and e-commerce is contributing to the expansion of a marketplace without geographic boundaries. A context of constant rapid change combined with widely differing values around the world is producing an evolution in business practices and expectations. Networked multinational enterprises seek early case analysis, early resolution of disputes, and strategies for “faster, better, cheaper” solutions. Globalization of markets and business creates pressure for internationally consistent environmental protection strategies. Even at the private level, some multinational business enterprises establish common international environmental protection standards because, if for no other reason, it is too complicated and inefficient to do otherwise.

ENVIRONMENTAL PERFORMANCE AS AN INDICATOR OF OVERALL MANAGEMENT QUALITY

Effective environmental management, especially in transnational enterprises with diverse operations spanning the world, is a complex matter requiring sophisticated systems and effective integration into executive and board-level governance. Even before the year 2002 collapse of Enron Corp., the investing community was addressing the challenges of discerning good from bad corporate management for purposes of valuing stock in publicly traded companies.
Now that corporate sustainability performance can be quantified, shareholders and investment advisors increasingly are analyzing a company’s environmental performance as an indicator of overall management effectiveness.19

To the extent that a business or governmental enterprise improves its overall environmental performance, it can achieve corresponding cost savings and create new value with improved EDR systems, strategies, and tools. Increased investor attention to environmental management, along with the pressures of consumer sensitivity to environmental compliance (often measured by reference to the ISO 14000/14001 “stamp of approval”20), together create powerful incentives for innovation in the development of more efficient and more effective EDR methodologies, systems, and strategies.

**Emergence of Interdisciplinary Professional Services Firms**

Effective EDR draws on the training and experience of specialists in numerous professional fields such as law, psychology, biosciences, business management, finance, accounting, economics, computer sciences, information management, engineering, and systems development. Creative solutions providers employ these and other evolving competencies to improve conflict management systems and dispute resolution strategies.21 The American Bar Association (ABA) Section on Environment, Energy and Resources (SEER) has recognized the impact of these interdisciplinary or “multidisciplinary” trends on the legal profession:

The practice areas represented by SONREEL22 have very long experience with multidisciplinary practice. Few problems in environmental, energy or natural resources law are purely legal; the participation of multiple disciplines is the rule rather than the exception.

... The trends that have led to multidisciplinary practice in our fields are, if anything, accelerating: the complexity of regulatory programs; the interconnectedness of technological, economic and legal issues; the globalization of both activities and impacts; the explosive growth of available data.23

**OPTIMUM SOLUTIONS OUTSIDE THE SCOPE OF JUDICIAL REACH**

The opportunity to develop solutions outside the scope of the formal legal process is a perceived advantage of most alternate dispute resolution (ADR)24 processes, and EDR is no exception.25 Environmental conflicts and disputes can involve broad public policy decision-making, and it is important in cer-
tain types of cases to expand the environmental knowledge base to accomplish long-term social goals. NGO participation, international treaties, cross-cultural considerations, and other factors contribute additional incentives for extrajudicial solutions, which may require concurrence of international, federal, state, and/or local regulatory authorities for implementation.

**SCIENTIFIC AND ECONOMIC UNCERTAINTY**

A significant level of scientific and economic uncertainty may exist with regard to the nature and extent of risks presented by various industrial activities and their resulting environmental contaminants. As a result, substantial uncertainty can exist with regard to the nature of the appropriate industry and government response (if any) and its associated economic impact. Thus “the facts” may look quite different to the various participants in the conflict management process. Discussions associated with efforts to ratify the Kyoto Protocol present a good current example of this phenomenon. An important initial challenge is how to create a system for exchanging and validating information so that participants can begin to understand and respect their different perspectives—a first step in establishing a shared view of reality. Judges, court administrators, elected officials, regulators, and disputing parties increasingly are resorting to Web-enabled technology to support the process of efficient information exchange in complex situations.

**CROSS-CULTURAL CONFLICT AND/OR IMPORTANT VALUES CONFLICTS**

The significance of the uncertainty factor is increased when participants have different systems of personal values and priorities that generate conflict over how to manage even agreed levels of risk. For example, a regulatory authority perception of an “acceptable” level of risk of harm from an industrial pollutant may be lower than the industry’s perception but higher than a community resident’s tolerance (which may be “zero risk”). Disputes that involve both significant uncertainties and also conflicts in fundamental values are difficult to resolve because of their emotional volatility, and also because it is difficult to find mutually agreeable solutions in situations where disputants do not agree about “the facts.” Reaching some common perceptions and creating a shared fact base are essential to establishing the trust and credibility that will be critical to achieving resolution.

**MULTIPARTY DYNAMICS**

Multiparty dynamics add complexity. The more parties there are in any given
situation, the more likely it is that the EDR process will be complicated by agency and authority issues; information sharing, management, and analytic complications; conflicts over fundamentally differing values; credibility and communication issues; power struggles within factions as well as among disputants; and other multiparty dynamics.

INVolVEMENT OF SIGNIFICANT STAKEHOLDERS OUTSIDE THE SCOPE OF ANY JUDICIAL PROCEEDINGS

In some situations, EDR requires integrating and communicating about data in ways that cannot readily be accomplished through formal judicial or administrative process. Rules of standing, jurisdiction, and ripeness serve to narrow the scope (subject matter, numerosity, time horizon, remedies), but development of enduring solutions may require broadening the scope. For example, sometimes long-term EDR success may be enhanced by including stakeholders such as NGOs and community groups that might not have legal standing as intervenors, but whose participation may be necessary to lasting resolution. Success in assisted negotiation of such disputes requires preliminary agreement to suitable ground rules. NGO and community groups often require the right to report back to their constituencies during and after caucus and joint sessions, thus complicating the confidentiality conventions that commercial dispute resolution processes customarily employ. Where significant local, regional, or international groups perceive risks to “international commons” such as the Earth’s oceans and atmosphere, or indigenous populations, such that NGOs from all over the world may seek to become involved in the development of solutions, this can present challenging issues over who has the authority to negotiate and agree to solutions.

EXTREMELY LARGE ECONOMIC STAKES

Large perceived stakes, both economic and environmental, create complexity in EDR processes. Disputes deemed so large that they are material to a publicly held company’s public reporting obligations, or of such a scale that they are likely to attract significant market and/or public attention, may bring additional risks and additional decision-makers into the dispute management process.

Improving EDR Outcomes: A Framework for Analysis

Different dispute dynamics require different conflict management and dispute resolution resources, depending on the nature and extent of any emotional or values conflicts, different beliefs about the facts, conflicting needs and interests, power struggles, and other situational variables. Applying a
framework for selecting or designing an optimum dispute resolution process to fit a particular situation can substantially improve EDR outcomes. The framework described in this section was derived from experience in diverse EDR contexts, including community conflict management,\textsuperscript{33} land use and urban planning,\textsuperscript{34} and environmental litigation.\textsuperscript{35} It relies on answers to four preliminary questions to help disputants, counsel, and neutral services providers make well-informed and wise decisions about how to optimize EDR results through appropriate use of state-of-the-art ADR systems, strategies, and tactics:

1. What kind of dispute is it?
2. What kind of outcome is desired?
3. What EDR process will be most appropriate to achieve the desired outcome?
4. What kind of resources can best assist the EDR process chosen?\textsuperscript{36}

WHAT KIND OF DISPUTE IS IT?

When environmental attorneys are asked what kind of disputes they handle, they often respond by identifying their substantive law practice area or focus, such as RCRA permitting, Superfund enforcement, insurance coverage, or regulatory negotiation. Other times, they answer by identifying the regulated medium that is the focus of their practice, such as solid waste, air, or water. In assisted negotiation contexts such as facilitation and mediation, outside the familiar rules of litigation, arbitration, and administrative procedure, the “what kind” of dispute question takes on a different meaning.\textsuperscript{37} In answering that question, it is generally useful to give attention to five elements:

1. Participants (disputants and other stakeholders);
2. Actual and perceived conflicts in needs and interests;
3. Facts or data conflicts (actual and perceived differences over what is “true”);
4. Conflicts in fundamental values and priorities; and
5. Context (for example, administrative, judicial, or legislative constraints; time and money constraints; power distributions).

Participants. Is it a two-party dispute, a three-party dispute, or a multiparty dispute? Does the dispute involve a small group of individuals, or will an auditorium be required to hold all the stakeholders?\textsuperscript{38} Are all the parties essential to effective long-term resolution at the table? If not, this can raise important “convening” questions about whether and how to bring all the necessary participants to the negotiation table.\textsuperscript{39} Is a single geographic commu-
nity involved, or are the participants or the subject matter widely distributed geographically? Are important relationships at issue? Does effective communication exist among the parties? Is there a high level of trust and credibility among them? Or does a high level of antagonism impede efficient communications?

Actual and Perceived Conflicts in Needs and Interests. Especially in highly complex conflicts, disputes over needs and interests that are actually in conflict must be differentiated from disputes over needs and interests that only appear to conflict. To the extent that parties and stakeholders are operating out of differing beliefs over what is true, an important early task is to develop a shared picture of reality. When communication channels are established and effective, information is shared, and the table is level, the neutral focus shifts to helping the participants identify and understand their conflicting needs and interests; identify the extent to which agreement may already exist; invent possible solutions; assess their likely consequences; and select among them (the “problem-solving process”).

Conflicts About What Is “True.” Conflicts involving the natural environment often result from very different perceptions about the “truth,” the “facts,” or “reality.” What data has been collected? What is missing? Do the disputants agree about what “facts” are “known”? If disputants do not all have access to the same fact base, or if they interpret shared data differently, how significant are the differences to each disputant’s risk analysis? Where important information is missing, erroneous conclusions almost certainly will follow. How can data gaps be filled? Are there roomfuls of paper that must be managed? Does collected information need to be assembled into a shared database?

Values Conflicts and Priorities. Are values conflicts present? Is there a high level of antagonism? Do values conflicts impede effective and efficient communication among the disputants?

Context. Is the matter in litigation? Is litigation contemplated? Are there political, legislative, economic, power distribution, or other context issues that place limits on what a dispute resolution process can achieve? What is the balance of power? Are time and money constraints significant? Is the controversy subject to ongoing administrative process, rules, regulations? In crafting a process to resolve a particular dispute or set of disputes, power, influence, and control issues may focus on issues such as confidentiality; how much time the process will take; how much capital, focus, and energy each party will have to divert to the conflict management or dispute resolution process; mechanisms for timely access to necessary and sufficient information; mechanisms to ensure integrity and fairness in the process; and cost-benefit analysis (anticipated economic cost compared to outcome satisfaction).
WHAT KIND OF OUTCOME IS DESIRED?

Desired outcomes may range from creation of effective communication channels or information-sharing\textsuperscript{42} to allocation of who should pay how much to whom,\textsuperscript{43} to full resolution and solutions development.\textsuperscript{44} Some may want to narrow the scope of disagreement. Others may want to create, preserve, or enhance ongoing relationships. In some cases, desire for apology may be at the heart of the dispute.\textsuperscript{45} What level of finality can be obtained, what is the risk of appeal, and what are the related timing issues?\textsuperscript{46} Depending on desired outcomes, participants may require a variety of different types of assistance in their negotiation of agreed outcomes—for example, information management, neutral analytic services, facilitative support, or expert opinion.

WHAT EDR PROCESS WILL BE MOST APPROPRIATE TO ACHIEVE THE DESIRED OUTCOME?

Once desired outcomes are understood, the proper EDR process can be identified or designed. Will an enduring result in the particular situation be more likely achieved through “decision-making” or “assisted negotiation”?\textsuperscript{47} The answer to this question will vary with the circumstances. Four important choices must be made in selecting or designing an appropriate EDR process:

1. Do the disputants want to retain control over process and outcome, or do they want a “third party” to control either or both of these concepts?
2. Do the disputants want the conflict resolution or decision-making process to be public or private?
3. Do the disputants want to make use of collaborative methodologies, adversarial methodologies, or a mix of both? and
4. What will be the applicable ground rules?

**Decision-Making or Assisted Negotiation?** Do the disputants desire third-party decision-making, where a judge or jury (or arbitral panel, or neutral expert, or wise elder) will decide who is right and who is wrong? Or do they want assistance in reaching a mutually agreeable result? If disputants want someone else to decide who is right and who is wrong, then arbitration or litigation may be appropriate. If participants want assistance developing a mutually satisfactory resolution, then mediation or facilitation or some form of nonbinding advisory opinion may be most productive. If the party who “loses” is likely to appeal to a higher authority, then it may be efficient to blend decision-making and appellate processes into an assisted negotiation process.
Public or Private? Is there a desire for a “public announcement,” which could be obtained through a highly publicized court decision, or a desire for confidentiality, which could be obtained through arbitration or an assisted negotiation process? In addition to perceived advantages in time and resource savings, or minimizing the risk of damaging important relationships, parties may be attracted to information dispute resolution methods because of a desire for privacy.

Collaborative or Adversarial? Like unassisted negotiation, assisted negotiation can take collaborative, adversarial, or blended form. Distributive negotiation, also sometimes called “value-claiming” or “competitive” negotiation, is generally considered to be most appropriate in disputes over how a fixed amount of something (e.g., land or money) will be allocated among competing interests, so that the more one gets, the less is available to others. Integrative negotiation, also sometimes called “principled” or “win-win” negotiation, focuses on interests instead of positions; invents options for mutual gain; and seeks to “expand the pie” to create opportunities for more than mere distribution through the negotiation process. Will a collaborative or adversarial process be most efficient and effective for the particular EDR situation in the long run?

Applicable Ground Rules. In arbitration, like litigation, the rules of the forum typically apply. One of the great frustrations for parties in any conflict or dispute situation, however, is lack of control over the process and its outcome. If the parties want a mutually agreeable solution, mutual agreement must establish how results are to be achieved. Unlike judicial and administrative rules of conduct, the rules that apply in EDR processes apply only to the extent that participants agree to be bound by them.

The opportunity to negotiate ground rules is an important preliminary step in designing an assisted negotiation process, which may be overlooked by disputants and lawyers more accustomed to operating in the familiar environment of litigation and arbitration where all rules are specifically prescribed.

WHAT KIND OF RESOURCES CAN BEST ASSIST THE SELECTED EDR PROCESS?

Once a decision is made about the EDR process that will be used to deal with the dispute, suitable skills and expertise can be identified. Virtually any resources typically deployed in adversarial processes can be engaged on a cost-shared basis to assist EDR problem-solving. For example, it is common in Superfund cost recovery situations for groups of potentially responsible parties (PRPs) to engage common counsel, document and information management specialists, and economic and financial experts on a cost-shared basis.
An important preliminary question is whether to engage any independent resources on a cost-shared basis, or instead to rely entirely upon resources of one or more of the participants. If a decision is made to engage independent resources, what kind of help is desired? What competencies and resources will most efficiently and most satisfactorily put a lasting end to the conflict situation? Do the parties need a decision-maker? A judge, to rule on questions of law? A jury or arbitral panel to decide who is right and who is wrong about relevant facts? Or do they need help establishing trust, credibility, and effective systems for communication or problem-solving? Is substantive practice experience important? How about facilitative skills? Or developing a shared fact base? Is substantive experience important? Technical capability? Experience with a particular agency or dispute resolution methodology? Is dispute resolution system design talent required? Some of the types of services that can be shared by EDR participants are:

**Information Management Services.** Technical experts can design systems for data collection and analysis. Disputants may share the cost of developing and maintaining shared document repositories, databases, and information-sharing systems.

**Convening Services.** A convenor may be able to help bring reluctant parties to the negotiation table.

**Facilitation Services.** A facilitator can help participants manage conflict; communicate meaning effectively; and structure and implement a problem-solving process. Competent facilitators can help participants identify and clarify conflicting needs and interests, values, and perceptions about “the facts”; invent, explore, and evaluate possible solutions; and select among them.

**Mediation Services.** A mediator can help participants clarify and understand opposing points of view; identify needs and interests underlying stated positions; identify best alternatives to a negotiated agreement; assess relative strengths and weaknesses; develop realistic options for settlement; assess probable consequences; achieve agreement; and develop agreed enforcement mechanisms. An individual with judicial temperament and experience, and appropriate substantive experience, probably would also make a good arbitrator. The roles are quite similar. Different skills are required of a facilitator or mediator, however, because of the ways in which collaborative problem-solving objectives differ from adjudicative ones.

**Experts.** Financial and other experts can perform independent review and analysis, and provide binding or nonbinding opinions.

An important EDR lesson learned from complex commercial dispute resolution in Superfund cost allocation settlement is that the entire cross-disciplinary project is best managed by a qualified facilitator or mediator with skills and competencies appropriate to the particular situation.\(^5\) Environmental-
tal disputes tend to be complex, requiring financial, economic, scientific, and technical modeling and analysis. They may involve numerous parties, and causation, damages, and allocation issues that require analysis across decades of time. If legal liability issues are significant, how important is legal training and experience? If environmental liability issues are significant, how important is environmental law experience? Environmental engineering or management? If damages issues are significant, and the parties agree to pursue a mediation strategy instead of (or alongside) litigation or arbitration, will the ideal mediator be a financial or economic expert? If emotional conflicts are intense, should the mediator be a psychologist? If business issues are at the heart of the dispute, should the mediator be a business executive? Is a cross-disciplinary team the best choice? In this Internet era, Web-enabled information-sharing systems can help to identify misunderstandings, create common information bases and shared views about “the facts,” and assist in the development of communities with genuine problem-solving capabilities.

Environmental Management Systems and EDR

Not every conflict between economic and environmental protection objectives can be avoided. Not every unavoidable conflict can be resolved early or quickly. Some disputes require judicial determination to establish precedent or send an important public message. Other disputes may arise out of inadequate preliminary business analysis; failure to implement adequate internal regulatory compliance systems; or failure to identify critical stakeholders and their issues early in the life of a project. The importance of learning as early as possible about such situations is critical to cost-effective environmental risk management. An enterprisewide environmental management system (EMS), including a well-designed and organized set of conflict management and dispute resolution policies and procedures, supports these objectives.54

THE EMS TREND

The ABA encourages regulatory authorities and regulated entities to adopt and encourage voluntary EMS as a means of improving compliance and environmental stewardship.55 The U.S. Environmental Protection Agency (EPA) also has endorsed the use of EMS, including ISO 14001, adopting a policy that encourages use of an EMS across a wide range of organizations with particular emphasis on achieving “improved environmental performance and compliance, pollution prevention through source reduction, and continual improvement.”56 The EPA encourages organizations that use an EMS to obtain stakeholder input on matters relevant to its development and implementation.57
At the simplest level, an EMS is an organization’s systematic approach to the management of environmental issues, compliance, and performance. Managed properly, an EMS can help to convene a “virtual” problem-solving community to identify and develop solutions before substantial investment constrains otherwise desirable options and alternatives. To create a state-of-the-art EMS, a business or governmental entity should take the following steps:

- Top management should establish a policy of and commitment to continuous environmental improvement, which serves as the foundation of the EMS, providing both an overarching framework and a statement of general goals to be pursued as an ongoing part of the organization’s environmental efforts.
- The organization should analyze all environmental laws and regulations that potentially affect its facilities and business processes (such as emissions of air pollutants or generation of hazardous wastes), and establish measurable objectives and targets to monitor its environmental performance.
- The organization should develop a plan designed to meet these targets, taking into account implementation factors such as human and financial resources, roles, and responsibilities; required action steps; and schedules for action items.
- The organization should establish a system for verifying, and confirming on an ongoing basis, that all of its necessary operating permits are up to date and reflect actual operations.
- The organization should establish employee environmental awareness programs, including regular and updated training about the organization’s environmental policies and procedures, to ensure that its work force becomes and remains environmentally competent. It should also adopt environmental performance criteria, updated as necessary and appropriate for all job descriptions, to link environmental performance to job performance; and incorporate environmental performance criteria into regular overall performance reviews.
- The organization should also establish effective procedures and systems for:
  - balancing compliance costs and liabilities with proactive initiatives;
  - influencing the form of future environmental requirements;
  - monitoring current compliance efforts;
  - responding in a timely fashion to detected noncompliance;
— ensuring timely and accurate reporting on environmental compliance to management and regulators;
— responding effectively to environmental emergencies;
— forming strong relationships with communities in which the company does business;
— establishing a good record-retention system;
— establishing a system for claims identification and analysis for dispute avoidance; and
— establishing a system for early conflict management and dispute resolution for improved relationships, new solutions, and other new value.\(^{58}\)

**USING AN EMS TO AVOID OR REDUCE ENVIRONMENTAL DISPUTES**

Failure to anticipate conflicts and provide for their efficient resolution can create unnecessary risks of time and budget overruns, project failure, and adverse publicity on a global scale. By contrast, incorporating conflict management and early resolution of objectives into an EMS may not only avoid delay and expense but may also create new opportunities, new relationships, and other new value. An EMS forces analysis of the environmental regulatory framework and of the organization’s management response to that framework and other environmental concerns, better enabling the organization to approach all areas of environmental performance in a more efficient, effective, and innovative manner.\(^{59}\) This can help an enterprise avoid or reduce environmental disputes in at least two important ways.

First, a studied and systematic approach to environmental management allows an organization to achieve significant cost savings through reduced costs of conflict and dispute resolution by achieving more predictability and consistency in its environmental management approach. The same EMS infrastructure that supports a company’s operational performance can help avoid disputes by providing for early conflict management and dispute resolution to improve relationships and minimize project interruption, assisting the company to minimize pollution penalties, claims management, litigation costs, insurance premiums, and damage rewards. By providing a platform that supports identification and resolution of conflicts before they become disputes that threaten the productivity or viability of the project, venture, or enterprise, an EMS can save money, enhance positive relationships, and build additional value.

Second, the content and design of an EMS should take into account important legal and quasi-legal standards arising from both governmental and nongovernmental sources at the state, U.S. federal, foreign, and international
levels. Two general categories are the EMS standards themselves (e.g., ISO 14000, European EMAS, Responsible Care, and other standards, codes, or approaches provided by NGOs and governmental and industry groups) and governmental standards and policies (e.g., U.S. Sentencing Guidelines, EPA and Department of Justice enforcement policies, and EPA’s “Performance Track” program). In addition to other benefits to organizations that adopt EMSs or other related efforts, mechanisms to aid compliance with these standards inevitably reduce related costs of enforcement disputes and other disputes that can attend them (e.g., tort litigation, insurance coverage litigation, and other consequences of alleged noncompliance such as adverse publicity, lost market share, and diminished shareholder value).

**USING AN EMS TO SUPPORT EARLY DISPUTE RESOLUTION**

An enterprisewide or project-specific EMS can be used not only to pursue regulatory compliance objectives, but also to achieve more far-reaching environmental initiatives and objectives. For example, a construction project in an ecologically sensitive area can use an EMS to permit rapid field resolution of issues presenting the potential for conflicts or disputes, and to provide a process for elevating the more complex issues requiring top management input for resolution. An EMS with EDR mechanisms makes it possible to:

1. determine the internal and external conflicts that are likely to emerge in connection with any given project;
2. ensure that all stakeholders and their concerns are identified early, and an effective communication system established; and
3. develop conflict management and dispute resolution mechanisms and procedures to resolve the conflicts and eliminate the disputes at an early stage.

The concept of “sustainable development” recognizes that economic growth cannot be sustained over the long run if the environment and natural resources are not properly managed. Depleting the environment depletes capital; business strategies that fail to recognize this basic fact are short-lived. The related concept of “sustainable environmentalism” recognizes that without economic development that efficiently improves the standard of living and meets the needs of growing populations, the environment will suffer. Environmental strategies that discourage productive economic activity are not sustainable and may be viewed as a luxury enjoyed only by those at the top of the economic ladder to the detriment of those below. An effective EMS facilitates sustainable development not only through improved compliance
with international, regional, and local standards but also by supporting the development of sustainable solutions through state-of-the-art conflict management and dispute resolution systems and methodologies.

**Conclusion**

If there will always be tension between industrial development and preservation of the environment, how can environmental lawyers and other risk managers contribute to the development of enduring and sustainable solutions? Frustration with the consequences of modern EDR presents significant opportunities for environmental lawyers to add value through more effective dispute resolution strategies. Lawyers who can successfully assist their clients in crafting sustainable solutions can anticipate a significant competitive advantage over those who are not able to meet this challenge. Judicious use of assisted negotiation strategies can help.64

In 1999, the RAND Institute published a report concluding that litigation alternatives may not save costs or time in court-annexed ADR.65 A follow-up study recently reported first-phase results from a longitudinal study to track lawyers’ changing—or unchanging—views about ADR over the next 10 years:

- Nearly 80 percent of the responding lawyers recommend ADR to their clients.
- Responding lawyers perceived ADR to be cheaper and more cost-effective than litigation for various reasons (e.g., saving time; more flexible and more effective; creating opportunities for “win-win” solutions; better able to handle large-scale technically or scientifically complex cases).
- Responding lawyers who did not recommend ADR either never had any experience with it, simply preferred litigation, felt that ADR was actually more expensive, or reported difficulties locating appropriately knowledgeable neutrals.
- Clients reportedly participate in ADR for a variety of reasons, most frequently citing time and cost savings (and also avoidance of a disruptive court case; belief that ADR would yield settlement; preservation of relationships; finding more enduring resolutions; and achieving fairer monetary settlements).
- Barriers to the use of ADR include finding qualified and technically savvy neutrals; perceptions that government agencies hesitate to use ADR (but governmental endorsement of ADR also is cited as a reason why some responding attorneys recommend ADR to their clients); convening challenges; and concerns about whether counsel can represent their clients zealously in ADR contexts.66
Despite these reported obstacles, however, the use of mediation in environmental and natural resource cases is becoming a standard part of the litigation and dispute resolution process. Business and governmental organizations know that an early focus on issue identification and problem-solving can create substantial new value, as well as save costs by avoiding disputes and litigation. Early resolution of disputes and lawsuits also can create new solutions, even if the process sometimes may require the same investment of time and money as the litigation process can entail. While collaborative problem-solving may not always be cheaper than the litigation or arbitration alternative (depending on how “cost” is measured), it almost certainly will be more effective in developing enduring solutions and protecting important relationships. The following chapters provide examples of effective EDR drawn from a diverse group of attorney and non-attorney EDR practitioners in a wide range of substantive practice areas.

Notes
1. “Sustainable development” has been defined by Dr. Lynton Caldwell, one of the principal authors of the National Environmental Policy Act of 1969, http://www.indiana.edu/~speaweb/fcltydir/caldwell.html, as “the meeting of today’s true needs and opportunities without jeopardizing the integrity of the planetary life-support base—the environment—and diminishing its ability to provide for needs, opportunities, and quality of life in the future.” LYNTON K. CALDWELL, INTERNATIONAL ENVIRONMENTAL POLICY (3d ed. 1996) (hereinafter CALDWELL, 3D ED.) at 243. To be sustainable, development must possess both economic and ecologic sustainability, a concept that is viewed quite differently by industrialists, economists, planners, and environmental and ecological scientists, and has generated a large literature (citing selected examples at note 71). Id. See generally Agenda 21, the Rio Declaration on Environment and Development (extensive and detailed statement of goals and principles adopted by more than 178 governments at the United Nations Conference on Environment and Development (UNCED) held in Rio de Janeiro, Brazil, June 3-14, 1992 (the “Rio Earth Summit”)), available at http://www.un.org/esa/sustdev/agenda21.htm; also see U.N. Commission on Sustainable Development (CSD), http://www.un.org/esa/sustdev/csd.htm (created in 1982 to ensure effective follow-up to UNCED). As this book goes to press, heads of state and representatives from numerous industry, professional, and ecological non-governmental organizations globally are preparing for the 10-year review of the Rio Earth Summit, the “World Summit on Sustainable Development,” to be held in Johannesburg, South Africa, August 24 to September 4, 2002. See http://www.johannesburgsummit.org.

2. See generally World Commission on Environment and Development (Brundtland Commission), OUR COMMON FUTURE (1987) at 43; CALDWELL, 3D ED. at 242-77 (resource, energy, economic development, and environmental protection challenges presented by the world’s still-expanding population and strategies for sustainable development), ch.10 n.5 (citing R.D. Munro & J.C. Lammers eds., ENVIRONMENTAL PROTECTION AND SUSTAINABLE DEVELOPMENT: LEGAL PRINCIPLES AND RECOMMENDATIONS (London: Graham and


4. See generally Caldwell, 3d ed. at 32-240 (growth of international concern; the events that led to the Stockholm Conference, and its results; Rio Earth Summit and Agenda 21; international structures of environmental policy; transnational regimes and regional agreements; and the “international commons” including air, sea, and outer space); 350-360 (a changing world order). Also see World Business Council for Sustainable Development (WBCSD), available at http://www.wbcsd.ch (a coalition of 160 international companies united by a shared commitment to sustainable development via the three pillars of economic growth, ecological balance, and social progress, with members drawn from more than 30 countries and 20 major industrial sectors); The Fridtjof Nansen Institute: Polhøgda, Norway, available at http://www.fni.no/ (and its Yearbook of International Cooperation on Environment and Development, available at http://www.greenyearbook.org/).


6. See Caldwell, 3d ed. at 250-58 (discussion of how the questions of whether modern society’s resource base is adequate to sustain its future, and whether developed resources are equitably distributed, impact the question of whether and to what extent sovereign rights to control resources may support the right of a nation to “mismanage” its resources).

7. Our Common Future, supra note 2, at 43.

8. Id.

9. See Stephan Schmidheiny, Changing Course: A Global Business Perspective on Development and the Environment (Mass. Inst. of Technology, 1992) (hereinafter Changing Course) at xi-xii (progress toward sustainable development makes good business sense because it can create competitive advantages and new opportunities, but it requires far-reaching shifts in corporate attitudes and new ways of doing business); see generally information on the Web site for the World Business Council for Sustainable Development (WBCSD), http://www.wbcsd.ch/. Agenda 21, supra note 1, identifies the following “key actors” outside the central government who have a major role to play in the transition toward sustainable development: women, youth, indigenous peoples, non-governmental organizations, local authorities, workers and trade unions, business and industry, the scientific community, and farmers.

10. See generally Caldwell, 3d ed. at 11-12 (the so-called environmental crisis of the
modern world derives from the physical and intellectual duality of an earth and its biosphere that are independent of human activity, and composed of complex interactive systems of oceans, islands, species, and ecosystems; and a world that is created by humanity through exploration, invention, labor, and violence, which is not integrated but instead is composed of geopolitical boundaries, diverse cultures, and widely differing values).


18. Company managements are under intense pressure to create and preserve shareholder value. Executives in most corporations feel their company’s stock is undervalued. Investors feel frustrated because they cannot get the kind of information they need to
make sound investment decisions. The current reporting model, with its rigorous and often complex disclosure requirements, fails to capture all the information needed to reasonably judge how a company is running its business, spending its cash, and what implications that deployment of cash has for future potential. Paul Rew, *The Value Gap*, posted June 1, 2001, at http://www.pwc_global.com/extweb/indissue.nsf/DocID/55A600EF601B3FD85256A5E006A09CB.

19. The concept is attractive to investors because it aims to increase long-term shareholder value, and also because of a growing belief among investors that sustainability is a catalyst for enlightened and disciplined management, a crucial success factor. See, e.g., Frank Dixon, *Getting Mainstream Investors to Think About Sustainability*, *Earth Times News Service*, available at http://www.earthtimes.org/apr/businessgettingmainstreamapar2_01.html (correlations to stock returns, improvements in sustainability analysis, and growing market demands for information on relative corporate environmental and social performance are causing mainstream investors, such as Schroders and ABN AMRO, to begin incorporating sustainability analysis into investment decisions). Dow Jones Sustainability indexes, available at http://www.sustainability-index.com/sustainability/investinent.html (For investors, the integrity of the corporate sustainability assessment and the index calculation ensures that the DJSI are independent reliable and investable sustainability indexes. For companies, the DJSI provide a financial quantification of their sustainability strategy and their management of sustainability opportunities, risks, and costs. Because “what gets measured, gets done,” they will be motivated to increase long-term shareholder value by integrating economic, environmental, and social factors in their business strategies.). See also Sharneek Konar & Mark A. Cohen, *Does the Market Value Economic Performance?* Review of Economics and Statistics (Owen Graduate School of Management, Vanderbilt University, May 2000), available at http://www.vanderbilt.edu/VCEMS/papers/DoesTheMarketValue.pdf (reporting on a study that relates the market value of firms in the S&P 500 to objective measures of their environmental performance, and concluding that bad environmental performance is negatively correlated with the intangible asset value of firms, with the magnitude of these effects greater for the traditionally polluting industries).


22. The ABA Section on Environment, Energy, and Resources (SEER) previously was named the ABA Section on Natural Resources, Energy, and Environmental Law (SONREEL).
23. *See* Ira Feldman & Ann L. MacNaughton, *A Model MDP—Environmental Practice in Munneke & MacNaughton*, supra note 21 at 99, 102 (quoting Michael Gerrard, then chair of the MDP Task Force for SEER).

24. Assisted negotiation processes such as mediation and facilitation, private trials such as arbitration and binding expert determinations, and various hybrids all are viewed by some as an alternative to public trial by judge or jury. The authors prefer to view the “ADR” acronym as an abbreviation, instead, of “appropriate” dispute resolution, encompassing the full tool kit of assisted negotiation and decision-making methods for managing conflict and resolving disputes.


26. *See e.g.*, President George W. Bush, *Climate Change Policy Options* (White House press release, June 11, 2001), available at http://www.epa.gov/globalwarming/news/speeches/gwbush_061101.html (The Kyoto Protocol is fatally flawed in fundamental ways, but the process used to bring nations together to discuss our joint response to climate change is important, and the United States of America is committed to work within the United Nations framework and elsewhere to develop with friends and allies and nations throughout the world an effective and science-based response to the issue of global warming); *see generally* note 5, supra, and accompanying text.

27. *See* Jay G. Martin, Gerald J. Edgley & Ann L. MacNaughton, *Global Risk Management for Sustainable Development, in Infrastructure, the Environment, and Dispute Resolution in the Americas* (ABA Standing Committee on Environmental Law: San Jose, Costa Rica, June 26-27, 2001) (hereinafter *Global Risk Management for Sustainable Development*) (Web-based knowledge management systems are fundamental to development of sustainable solutions over time). Technology to support these solutions is evolving rapidly. As just one example, as this book went to press a “virtual workgroup” was being convened by the ABA Law Practice Management Section’s e-Lawyering Task Force in cooperation with the global Organization for the Application of Structured Information Standards (OASIS) to develop global electronic standards for online dispute resolution (ODR) software and data interchange. For instance, standards may be developed to enable better communication of data from case management systems into a dispute resolution queue or enabling disparate systems to share data using Extensible Markup Language (XML), the universal format for structured documents and data on the Web.

28. *See* LAWRENCE S. BACOW & MICHAEL WHEELER, *ENVIRONMENTAL DISPUTE RESOLUTION* (1987); CALDWELL, 3D ED. at 272 (reconciliation of the goals of development and of environmental quality is essentially a reconciliation of values).


30. *See, e.g.*, JOE KANE, *SAVAGES* (Random House 1995) (authority challenges asso-
ciated with petroleum company negotiations with the Huaorani Indians in connection with an oil and gas exploration lease in the Ecuadorian Amazon).

31. See William B. Allison et al., Effective Settlement Advocacy in Mass Tort Disputes, infra Chapter 7 (impact of scale in settling mass tort cases).

32. See Chapters 4-10, infra (in-depth analysis of how different dynamics drive different settlement strategies in diverse EDR contexts).


36. For an expanded discussion of these four basic questions in the context of strategic EDR planning, see Ann L. MacNaughton, Collaborative Problem-Solving in Environmental Dispute Resolution, 11 NATURAL RESOURCES & ENVIRONMENT 1, 3 (1996).

37. See Russell Carparelli, Moving Beyond the Familiar Rules: The Challenges of Alternative Dispute Resolution, supra Chapter 2.

38. See William B. Allison et al., supra note 31.

39. See, e.g., Peter A. Bowman, Effective Settlement Strategies in Public Disputes, infra Chapter 5, notes 13-16 and accompanying text (impact of missing parties in the Texas Copper Smelter Negotiations).

40. See, e.g., id. (impact of strategic decision to develop trust and credibility among industry and community participants in the Armand Bayou Preserve Negotiations).

41. See, e.g., id. (impact of state laws on stakeholder ability to achieve resolution in the Edwards Aquifer Mediation).

42. See, e.g., id. (objective to establish effective communication channels and information-sharing strategies in the Texas Risk Communication Project).
43. See Robert P. Dahlquist, Ann L. MacNaughton & Raymond G. Schaefer, Resolving Superfund Disputes Outside the Courtroom, infra Chapter 8; D. Christopher Heckman & Jeffrey Mitchell, Effective Settlement Advocacy in Environmental Insurance Coverage Disputes, infra Chapter 9.


45. See Jay J. Madrid & Jay G. Martin, Advantages of Mediation and Arbitration in Environmental Disputes, supra Chapter 9 (relationships may be extremely important for the successful completion of a project); also see WILLIAM URY, GETTING TO PEACE (1999) at 1161-68 (role of apology in repairing injured relationships).

46. See Robin Juni, Public Access to Environmental Dispute Resolution Processes: U.S. and U.K. Trends Toward a Common Approach, supra Chapter 5 (experience suggests that, if participants are assured that the result of a particular “game” will be final, they may have greater incentive to fully participate and to adhere to the decision reached as a result of that process); also see William B. Allison, Robert M. Petersen & Ann L. MacNaughton, Effective Settlement Advocacy in Mass Tort Disputes (impact on dispute resolution strategies of “maturity”—i.e., factors that will create liability and damages and how they are likely to be weighted; before certainty and predictability are established through experience in public, private, or blended trial and appellate processes, settlement strategies must take wider ranges of risk estimates into account).

47. In evaluating various dispute resolution methodologies, it is important to distinguish between the verbs “to decide” and “to resolve.” This distinction in meaning is crucial to an understanding of the differences between, for example, “mediation” and “arbitration.” Mediation involves resolution, and arbitration involves decision-making. The word decide derives from the Latin caedere, literally “to cut off” or “to kill off.” Thus to “decide” a dispute is to cut off one side in favor of the other, to decide who will win and who will lose. By contrast, the verb resolve derives from the Latin word resolver, to “unloose or dissolve,” and involves the concept of a whole with parts that may separate or come together. Dispute resolution entails identification of underlying needs and interests, and restoration of unity, through a process of developing, assessing, and selecting mutually satisfactory solutions. See Ann L. MacNaughton, Cross-Cultural Conflict Resolution: Finding Common Ground in Disputes Involving Values Conflicts, 33 WILLAMETTE L. REV. 747, 750 (Summer 1997) (citing WEBSTER’S NEW COLLEGIATE DICTIONARY 1976 at 293; B.L. ULLMAN ET AL., THIRD LATIN BOOK 1930 at 10). See generally, Jay J. Madrid & Jay G. Martin, Advantages of Mediation and Arbitration in Environmental Disputes, supra Chapter 9.

48. See Jay J. Madrid & Jay G. Martin, Advantages of Mediation and Arbitration in Environmental Disputes, infra Chapter 3 (impact of confidentiality considerations on choice of process). The most contentious issue associated with the development of the Uniform Mediation Act recently approved by the National Conference of Commissioners on Uni-


50. Roger Fisher & William Ury, Getting to Yes (1987); William L. Ury, Jeanne M. Brett, and Stephen B. Goldberg, Getting Disputes Resolved: Designing Systems to Cut the Costs of Conflict (1988) at 41-64 (putting the focus on interests; building in “loopbacks” to negotiation; providing low-cost rights and power backups; building procedures in a low-to-high cost sequence).

51. See Jay J. Madrid & Jay G. Martin, Advantages of Utilizing Mediation and Arbitration to Settle Environmental Disputes, Chapter 3 infra. In the alternative, parties may negotiate rules of evidence and procedure for tailored forms of private decision-making; however, this is no guarantee of satisfaction. For example, the Alaska Prudhoe Bay Joint Operating Agreement included many pages of negotiated “equity redetermination” procedures to fine-tune equity ownership positions of the joint venture partners at the end of the oil and gas exploration phase. The panel’s award, rendered after years of arbitration, was subsequently set aside by a court where litigation had been abated pending the outcome of the arbitration. Information on file with author MacNaughton.

52. See Robert Dahlquist, Ann L. MacNaughton & Raymond G. Schaefer, Resolving Superfund Cost Recovery Disputes Outside the Courtroom, infra Chapter 8.

53. Early cost allocation efforts where information management specialists, financial and economic analysts, and a mediator all reported to common counsel (e.g., Helen Kramer Landfill Site in New Jersey) were less effective than cost allocation efforts where information management and analysis were coordinated through the mediator (e.g., Fike/Artel site in West Virginia). Id. notes 18-23 and accompanying text; also see http://www.cdclark.com/cleansites/costap.htm.

54. In addition, enterprises that implement an EMS may experience numerous important benefits outside the scope of this book’s focus, ranging from increased profits to improved customer, public, and government relations (for example, being perceived as a leader and an environmentally friendly company). An EMS compels a company or other organization to become more aware of environmental aspects of their operations, to identify applicable environmental requirements, and to anticipate and track legislative and regulatory developments in the environmental arena. Such awareness sensitizes employees within the organization to environmental concerns, allows the organization to address environmental issues better, and fosters more effective compliance with both existing laws and new legal developments. For discussion of how an EMS can increase the market share of a company by stimulating more rapid innovation in all of an organization’s business processes, see Global Risk Management for Sustainable Development, supra note 27.
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57. Id.

58. See Ann L. MacNaughton & George E. Danner, Creating Value Through Dispute Resolution Strategies, 1 BUS. CONSULTING J. 61 (Arthur Andersen, June 1999) (application of system dynamic modeling to quantifying net value created or consumed through organizational conflict management and dispute resolution practices).

59. See Global Risk Management for Sustainable Development, supra at note 27 (full-cost environmental accounting is fundamental to development of sustainable solutions that will endure over time). Also see Caldwell, 3d ed. at 272 (when environmental or social effects are not included in product pricing, the public cannot fairly appraise the true cost of development; this accounting omission becomes a subsidy for environmental degradation).

60. See note 19, supra. While ISO 14001 is a nonmandatory management systems standard, it has many legal ramifications. Conformance with the ISO 14000 has helped many organizations to reduce their exposure to enforcement or prosecution for environmental offenses and the severity of sentences. Most important, in virtually all cases, adherence to ISO 14001 helps to reduce the frequency of environmental offenses.


62. If, despite ISO 14001 conformance, there is a violation of law, the EPA policy on criminal investigations provides that violations that are revealed voluntarily and remedied promptly “as part of a corporation’s systematic and comprehensive self-evaluation program” will generally not be investigated. Memorandum from Earl E. Devaney, Director, Office of Criminal Enforcement, U.S. EPA, The Exercise of Investigative Discretion (Jan. 12, 1994), p.6. Conformance with ISO 14001 could help demonstrate the existence of the “effective” compliance programs demanded by federal criteria. Indeed, if widely adopted, ISO 14001 could become the benchmark for minimally meeting these enforcement and sentencing criteria and help to significantly reduce the risk of conflict among stakeholders. Of course, some regulatory agencies already apply other EMS criteria not mandated under (but not inconsistent with) ISO 14001, as relevant considerations for enforcement leniency. Examples are a policy of prompt, voluntary corporate reporting of violations to the government; an ombudsman, hotline, or other vehicle for employees to
report violations without fear of retaliation; routine audits or other procedures showing “due diligence” in preventing, detecting, and correcting noncompliance; and incentives for managers and employees to adhere to company compliance policies, including disciplinary measures for those who cause or allow violations. In the United States, conformance with an applicable industry standard has had a favorable influence upon courts’ assessment of the accused’s due diligence. In the United States, where a corporation’s potential criminal liability for the misconduct of individual employees may hinge upon a determination of whether the misconduct should be attributed to the company, rigorous implementation of a corporate compliance program, such as one based on ISO 14001, may help prevent derivative liability. E.g., 60 Fed. Reg. 66,706, 66,710–12 (Dec. 22, 1995) [EPA policy statement on Incentives for Self-Policing: Discovery, Disclosure, Correction, and Prevention of Violations]; U.S. Department of Justice, “Factors in Decisions . . . ,” supra note 6. Also see Regina v. Novacor Chemicals (Canada) Ltd. (unreported, Oct. 16, 1992, Ontario Provincial Offenses Ct. [092/349/097]).

63. See Chapter 12, notes 30-35 and accompanying text.

64. Effective use of collaborative problem-solving in environmental situations has been the subject of numerous publications, many of which are listed in the annotated bibliography at Appendix A.

65. D. Hensler, A Research Agenda: What We Need to Know About Court-Connected ADR, 6 DISP. RES. MAG. at 1 (1999).