

KEY CONCEPTS OF ENVIRONMENTAL LAW

By

Jeff Civins

Jeff.Civins@haynesboone.com

Revised: January 31, 2011

Table of Contents

I.	OVERVIEW OF ENVIRONMENTAL PROGRAMS	1
II.	EFFECTS OF ENVIRONMENTAL PROGRAMS ON REAL ESTATE AND BUSINESS TRANSACTIONS	3
	A. Environmental Programs	3
	1. Programs Creating Land Use Restrictions	3
	2. Programs Creating Liability	4
	3. Programs Facilitating Real Estate Transactions	6
	B. Future Trends	7
	1. Corporate Sustainability	7
	2. Climate Change	8
III.	RELEVANCE OF ENVIRONMENTAL LAW TO LITIGATION	9
	EXHIBITS	
	Exhibit A – Legal Sources of Environmental Liabilities and Responsibilities	15
	Exhibit B – Environmental Programs	16
	Exhibit C – Superfund Defenses	17
	Exhibit D – Environmental Concerns	18
	Exhibit E – Environmental Conditions of Concern in Business Transactions	19
	Exhibit F – Factual Sources of Environmental Liabilities and Responsibilities	20
	Exhibit G – Hierarchy of Environmental Policies	21

KEY CONCEPTS OF ENVIRONMENTAL LAW

by
Jeff Civins
Jeff.Civins@haynesboone.com

Environmental laws sweep broadly, regulating a wide range of business activities. Environmental laws create obligations and liabilities that affect not only ongoing businesses, but business transactions as well. They also may form the basis for, or otherwise be relevant to, litigation. Set forth below is an overview of environmental programs and a discussion of their effects on real estate and on business transactions and of their relevance to litigation.

I. OVERVIEW OF ENVIRONMENTAL PROGRAMS

Environmental laws regulate business activities because of the effects or potential effects of those activities on the environment or on human health via the environment. Legal sources of environmental liabilities, summarized in Exhibit A, include statutes and the common law, both tort and contract, as well as rules, permits, and judicial and administrative orders.

Many environmental statutes deal with wastes and their disposition. These so-called pollution statutes include the Clean Water Act (“CWA”), the Clean Air Act (“CAA”), the Resource Conservation and Recovery Act (“RCRA”), the Comprehensive Environmental Response, Compensation, and Liability Act (“CERCLA” or “Superfund”), and the Underground Injection Control (“UIC”) Program of the Safe Drinking Water Act (“SDWA”). Each of these statutes is administered by the United States Environmental Protection Agency (“EPA”) and, with the exception of CERCLA, by its state counterparts.

Other environmental statutes deal with the use of raw materials and the manufacture, importation, and distribution of products, *e.g.*, the Toxic Substances Control Act (“TSCA”), the Federal Insecticide, Fungicide and Rodenticide Act (“FIFRA”), the Emergency Planning and Community Right-to-Know Act (“EPCRA”) of Superfund, as amended by the Superfund Amendments and Reauthorization Act (“SARA”), and the drinking water program of the SDWA. The Occupational Safety and Health Act (“OSHA”) sometimes is included in this category.

Other laws, so-called conservation statutes, require review of proposed activities based on their potential impact on the environment or various segments of it. Examples include the National Environmental Policy Act (“NEPA”), the Endangered Species Act, the Wild and Scenic Rivers Act, and the National Historic Preservation Act.

Types of environmental laws are summarized in Exhibit B.

Environmental statutes generally prescribe standards and contain substantial sanctions for noncompliance. The federal pollution statutes, for example, establish technology-based limitations for pollutant-emitting activities, which may be ratcheted down further if necessary to protect the environment, and administrative requirements, such as permitting, recordkeeping, and the reporting of routine and emergency releases.

States may assume responsibility for various of the federal pollution programs, and Texas, through the Texas Commission on Environmental Quality (“TCEQ”), generally has. Presently, EPA and TCEQ are in litigation over the Texas State Implementation Plan, developed by the TCEQ under the Clean Air Act, a portion of which EPA has disapproved, including aspects relating to TCEQ’s so-called flex permits. EPA has also taken steps to take responsibility for greenhouse gas permitting in Texas.

States also may have their own independent programs that parallel or supplement federal programs; for example, Texas regulates the management of industrial as well as hazardous solid waste. As a consequence, companies must be knowledgeable about state as well as federal law.

Because the pollution statutes generally were prescriptive in nature and generally did not deal with problems of the past, Congress in 1980 enacted Superfund. Superfund imposes on so-called potentially responsible parties or PRPs strict and generally joint and several liability for the remediation of sites of environmental concern. PRPs include present owners and operators and certain past owners and operators (*i.e.*, those at the time of disposal) of contaminated properties, as well as those who arranged for disposal of their wastes at such properties and transporters who selected those properties for disposal. Because liability is strict, the fact that a PRP acted in compliance with the law is not a defense.

The Superfund defenses are relatively narrow. Under the original act, there were three – act of god, act of war, and act of a third party. Subsequent amendments added others: innocent land owner (in 1986); and bona fide prospective purchaser and contiguous land owner (in 2002). These three newest defenses require, among other things, pre-acquisition “all appropriate inquiry” and post-acquisition caretaking. They apply only to purchasers (or lessees) of real estate and not to those who acquire stock. A chart showing the relationships of the various Superfund defenses is attached as Exhibit C.

Under the various environmental statutes, civil and criminal liability, as well as Superfund liability, may be imposed on individuals as well as companies. For example, the definition of “person” under the pollution statutes, includes corporations, partnerships, political subdivisions, and natural persons. Environmental liability also may arise under the common law, for damages to people, property, and natural resources, based on tort theories such as nuisance, trespass, negligence, and strict liability, and for economic loss, based on tort and contract theories. Natural resource damages also may be recovered under Superfund and the CWA.

Liabilities of concern under environmental laws include costs of compliance, such as, capital and operating expenses for required pollution control equipment and the time and expense for acquiring necessary permits, and costs of non-compliance, i.e., administrative, civil, and criminal sanctions, which include fines, injunctive relief, (e.g., to compel compliance or prohibit non-compliant operations), and, for criminal violations, imprisonment. Costs of investigation and remediation and natural resource damages arise under Superfund and state analogs, and often are substantial. Under the common law, liabilities include those arising from toxic tort and from property damage as well as those attributable to contract claims involving contaminated property. As discussed below, land use restrictions also may arise under environmental laws. A table summarizing types of environmental concerns is attached as Exhibit D.

II. EFFECTS OF ENVIRONMENTAL PROGRAMS ON REAL ESTATE AND BUSINESS TRANSACTIONS

For persons engaged in real estate transactions, environmental concerns relate to potential land use restrictions and liabilities attributable to on-site conditions, which are predicated on a party's ownership or other involvement with property. For those intending new uses of property, additional concerns relate to the costs of attaining and maintaining environmental compliance for these kinds of uses.

For persons engaged in transactions involving not only real estate, but also an ongoing business, concerns include liabilities for prior activities that contributed to an off-site environmental or public health threat or that were in violation of an applicable environmental law. Whether liabilities for prior activities are transferred as a result of a transaction turns on whether that transaction involves the transfer of assets or of company ownership, as in a merger (including one that may be judicially inferred). Attached as Exhibit E is a chart comparing environmental conditions of concern in asset and stock transactions. A number of states, including Texas, have adopted regulatory programs – so-called Brownfields programs – that facilitate transactions and development of sites that may be contaminated.

Set forth below is a brief discussion of environmental programs that: (1) create land use restrictions; (2) create liability; and (3) facilitate real estate transactions, followed by a discussion of future trends.

A. Environmental Programs

1. Programs Creating Land Use Restrictions

Environmental review and protection programs can restrict land use. For example, the National Flood Insurance Program effectively restricts development in the floodplain, and the federal Endangered Species Act restricts development in designated critical habitats or other areas in which endangered species may be present. The review required by these programs also may

result in delay and in the exacting of regulatory concessions by agencies in exchange for necessary agency approval or concurrence.

Some pollution programs regulate land use directly. Under the Safe Drinking Water Act, the Edwards Aquifer of Texas was established as a sole source aquifer, and the TCEQ has imposed certain land use restrictions in counties located atop the aquifer recharge area. The Edwards Aquifer Authority has its own regulatory program governing activities over the recharge zone of the aquifer, which contain land use restrictions also. Sections 361.531-.539 of the Texas Solid Waste Disposal Act (“SWDA”) require a permit, which contains restrictions, for the development of land over a closed municipal landfill. Section 404 of the CWA operates as a de facto wetlands preservation program by restricting development in wetlands areas; courts have construed the CWA to apply not only to the placement of dredged materials into bodies of water, but also to the use of tractors to clear bottomland hardwoods. Superfund and other programs relating to on-site conditions may create de facto and, in some instances, de jure restrictions on land use. Both federal and state Superfund programs also enable the government to impose a lien on remediated sites to secure payment of governmental costs in dealing with the site.

On the local level, many cities have watershed protection ordinances that significantly affect development. Other state and local programs restrict the withdrawal of groundwater and its availability for developmental purposes, such as the program implemented by the Harris-Galveston Coastal Subsidence District.

Several pollution programs restrict land use indirectly. Under the CAA, certain types of construction of new sources of air contaminants may be restricted based on the air quality of the region in which the property is located. Restrictions on existing sources of air contaminants also may affect the viability of a particular use. Similarly, under the CWA, discharges into watercourses may be restricted because of water quality limitations, which affect the uses available for property with wastewater discharge needs.

2. Programs Creating Liability

Environmental programs are relevant in transactions involving ongoing businesses because they give rise to substantial liabilities for prior activities that were conducted in violation of an applicable requirement. The significant costs associated with attaining and maintaining compliance with these programs affect transactions that contemplate the development of a new business as well as transactions involving existing businesses. Technical requirements established under pollution programs may significantly affect the feasibility and conditions of an existing or new use. Pre-activity environmental review of new uses under pollution programs, including the potential for protracted public hearings, affects the amount of time and money required to implement those uses. Some activities requiring a permit may be subject to expedited general – rather than individual – permitting programs. For example, under the CWA, those planning construction activities on one acre or more need not obtain an individual stormwater

permit, but are required to file notices of intent to be covered by a general permit, and, among other things, must prepare and implement stormwater pollution prevention plans (“SWPP”).

Various onsite conditions may give rise to environmental liabilities. These conditions include those giving rise to land use restrictions and those relating to the presence of contamination. These conditions, together with activities that may create liability, are summarized in Exhibit F. Liabilities associated with on-site contamination arise out of, among others, the following pollution programs and statutes:

- Superfund and section 7003 of RCRA and the Texas analog, which impose liability on, among others, owners and operators of contaminated property;
- the TSWDA, which, among other things, requires developers of more than one acre of property to conduct a soil test to determine if a closed municipal landfill is present;
- National Emission Standards for Hazardous Air Pollutants (“NESHAPs”) for asbestos pursuant to the CAA, which impose on building owners and operators significant regulatory requirements relating to building demolition or renovation;
- the RCRA underground storage tank (“UST”) program, which imposes significant regulatory requirements on present and past owners and operators of underground storage tanks, and the analogous state program, which applies to above ground storage tanks as well as USTs;
- section 6(e) of TSCA, which is the statutory basis for EPA’s program for polychlorinated biphenyl (“PCB”) regulation;
- and the Residential Lead-Based Paint Hazard Reduction Act of 1992, which imposes disclosure requirements relating to the presence of lead-based paint in housing units.

For on-site conditions involving asbestos, PCBs, or hazardous substances that were stored in USTs, Superfund provides an alternative basis for liability.¹

The presence of hazardous substances, asbestos, lead paint, USTs, or PCBs, as well as radon and indoor air pollution including the presence of mold,² may give rise to liability under contract and tort theories. Common law actions may involve third parties, such as toxic tort litigation –

¹OSHA imposes responsibilities on employers to create working conditions that prevent or regulate exposure to hazardous substances.

²Radon and indoor air pollution, though subject to study, currently are not subject to environmental regulation. These substances, however, may be subject to regulation under OSHA. Mold poses another concern.

brought by adjacent residents or property owners, invitees, or employees – or property damage, or diminution in value claims – brought by adjacent or possibly successive landowners. The presence of these on-site conditions, of course, affects property value.

Superfund not only imposes liability for on-site conditions on owners of property, but also creates liability for those acquiring ongoing businesses, or responsibility for former businesses, that disposed of wastes at sites subject to, or potentially subject to, Superfund investigative and remedial actions. As noted, under Superfund, PRPs include not only current and certain past site owners and operators, but also generators and transporters as well as others who arranged for disposal of wastes at the site. PRPs may be subject to state statutory and common law liability also.

3. Programs Facilitating Real Estate Transactions

To address concerns of the business community, federal and state government have developed programs and exemptions to encourage development of Brownfields – sites at which contaminants may be present. Both federal and state laws also afford lenders protection from Superfund type liabilities for both pre- and post- foreclosure activities on secured property. They also protect non-negligent fiduciaries from Superfund type liabilities.

Texas also has developed a voluntary cleanup program (“VCP”), administered by the TCEQ, which provides for issuance of an approval to the current owner, and of a release from liability to the State for subsequent owners and lenders, for property investigated and remediated in accordance with TCEQ requirements. These requirements generally are contained in the Texas Risk Reduction Program (“TRRP”). Under the Innocent Land Owner/Operator Program, another state program related to the VCP, an owner or operator of property onto which contamination has migrated also may obtain from the TCEQ a release from liability to the State.

The TRRP is a comprehensive program established by the TCEQ to address remediation of contaminated sites under the agency’s jurisdiction, including those being remediated under the VCP. It is a risk-based clean-up program, which takes into account various pathways of human and ecological exposure, and provides for the remediation of identified chemical of concern to protective concentration levels (“PCLs”).

There are two types of remedy standards: Standard A--permanent decontamination or removal; and Standard B--remediation that incorporates physical and institutional controls, such as deed restrictions, on the use of property. There are three tiers of PCLs under each of the two types of standards: Tier 1, based on non-specific data found in tables; Tier 2, based on site specific data and default models; and Tier 3, based on site-specific data and specific models, which require prior approval by the TCEQ. PCLs also depend on whether the use of the property is for residential or commercial/industrial purposes.

Under a new program, entitled Municipal Settings Designations (“MSDs”), TCEQ is authorized to eliminate the need for investigation of or response actions based on the ingestion pathway for contaminant impacts to groundwater that has been restricted from use as potable water by ordinance or restrictive covenant.

B. Future Trends

1. Corporate Sustainability

Corporate social responsibility (CSR) and corporate sustainability (CS) have become buzzwords for corporate programs that address non-economic societal issues. CSR generally refers to the policies and programs a corporation implements to address social and environmental concerns. The term “triple bottom line” sometimes is used to reflect a corporation’s attention to financial, social and environmental returns. Corporate sustainability, on the other hand, generally is used to describe the concept of minimizing a company’s environmental footprint while increasing shareholder value. But the two terms often are used interchangeably. CSR represents the most recent status of the evolution of corporate environmental policies, Exhibit G shows the progression and hierarchy of corporate environmental policies.

Although there is a growing trend for companies to implement CSR and CS programs, the concepts of CSR and CS are not without their critics. Some critics assert that a corporation’s focus should be on increasing shareholder value and that other stakeholders, such as governments, individual, and NGO’s, are better equipped to address social and environmental concerns. They maintain that social and environmental benefits are more likely to be realized if corporations focus on what they do best.

Supporters of CSR and CS maintain that the conflict between the economic bottom line, on the one hand, and social values and environmental protection, on the other, is for the most part illusory, because socially and environmentally progressive policies positively affect the bottom line – in numerous ways. Examples include preempting of potentially burdensome regulatory requirements; improvement of public image; increased sales, investment, productivity and employee satisfaction; development of new business opportunities; and cost-savings in reducing energy demands and environmental risks and expenses.

But although the decision to implement CSR and CS may seem straightforward, especially if added shareholder value is assumed, there are potential legal pitfalls that should be taken into account. To the extent a company falls short of written public commitments, including commitments regarding suppliers, there is the potential for regulatory and private litigation based on, among other things, fraudulent statements involving securities, as well as for negative publicity. In addition, there is the potential for legal exposure if a company’s social and environmental programs undercut its ability to profitably conduct its core business or are inconsistent with shareholders’ reasonable expectations, based on prior representations.

For these reasons, a company considering implementing a policy of CSR and CS should consider not only whether a policy will improve the bottom line, but also how to implement it so as to minimize the potential for adverse legal consequences. It also should consider not only the current regulatory landscape, but also potential changes in that landscape that may affect how it conducts its business. Directors, too, should be aware of these issues in carrying out their duties to the corporation on whose board they serve.

Many lenders and investors are focusing on companies that practice CSR, *e.g.*, TXU buyout, because of positive publicity. The fact that companies that implement CSR are thought to be better performing, *i.e.*, a good environmental track record, is thought to be an indicator of a well-managed company.

2. Climate Change

The perceived threat of global warming caused by the emission of greenhouse gases (GHGs), especially CO₂ or “carbon,” is -- appropriately -- a hot topic. Although not yet subject to substantive federal regulation, this topic has been the subject of the Kyoto Protocol and the Copenhagen Climate Conference, foreign legislation, domestic regional and state legislation, civil litigation, voluntary standards and programs established by non-governmental organizations (NGOs), and proposed federal legislation, as well as scientific debate.

In *Massachusetts v. EPA*, the US Supreme Court held EPA must make an “endangerment finding,” that is, determine whether CO₂ and other greenhouse gas emissions (GHGs) from motor vehicles may reasonably be anticipated to endanger public health and welfare, or explain why it cannot, and if it does so, must determine whether those emissions contribute to air pollution. On December 7, 2009, EPA made both “endangerment” and “cause or contribute” findings. Since then, EPA has issued GHG regulations for motor vehicles, and GHGs have become “regulated pollutants” triggering permitting requirements under the Clean Air Act, beginning in January.

EPA previously had issued GHG reporting requirements, and, in anticipation of its endangerment and cause or contribute findings, has promulgated a tailoring rule, identifying which sources will be subject to PSD and Title V air quality permitting because of GHG emissions. The intent of the tailoring rule is to limit the otherwise large number of non-industrial facilities that would be subject to regulation.

Because even EPA has acknowledged that the Clean Air Act is ill-suited to regulated GHG emissions, many hope federal legislation will overtake EPA regulation. The House had passed the American Clean Energy and Security Act, but the Senate did not pass a bill and, with the recent election, federal GHG legislation, including so-called cap-and-trade, is likely dead.

In the absence of federal GHG legislation, states, individually and in conjunction with other states in a region, have developed a range of programs to address GHG emissions. Regional programs with cap-and-trade mechanisms include the Regional Greenhouse Gas Initiative (RGGI), the Western Climate Initiative, and the Midwestern Regional GHG Reduction Accord. State programs range from taxation to goal setting to actually imposing CO₂ caps on particular industrial sectors. California sought to develop GHG emission standards for motor vehicles, based on the waiver from preemption of Section 177 of the Clean Air Act, and 14 states chose to follow suit. But EPA denied California's petition. California filed an appeal in the Ninth Circuit challenging that denial. On June 30, 2009, EPA reversed its position and granted the waiver. That decision itself has been challenged by trade associations.

Interestingly, although there is no mandated U.S. program, more than thirty prominent corporations have joined with a coalition of environmental groups to form the United States Climate Action Partnership, which has urged the federal government to adopt a strong national policy to reduce US GHG emissions, including a mandatory cap-and-trade program. Combat Climate Change, a coalition of 46 international companies, has pushed countries to join together for action climate change.

Even in the absence of federal legislation, corporations have been quick to respond to climate change concerns raised by their shareholders, investors, lenders, customers, employees, NGOs, and other stakeholders, as well as by politicians and the media. Many corporations have chosen to disclose information regarding the effects of their activities on climate change and the effects of climate change on their activities. Because of the uncertainties associated with accounting for carbon credits, corporations, in disclosing carbon-related information to investors and others, in their SEC filings or stand-alone sustainability reports, or to consumers, in marketing and advertising, may be exposed to liability if their claims or the underlying facts upon which they are based are found to be misleading and untrue, perhaps even if they exercised due care. These disclosure-based liabilities may arise under state deceptive practice statutes and the common law, in climate change litigation, under the Federal Trade Commission Act, under securities law, and possibly under developing GHG-specific programs. Although not strictly speaking a liability, significant reputational "liability" also may arise from inaccurate green disclosures.

Legal issues associated with climate change may arise in a number of different types of matters, including:

- development of sustainability and climate change policies;
- transactions and disclosures in which carbon footprints and carbon credits are pertinent or are the subject of the transaction or disclosure;
- development and construction of "green buildings";

- construction and operations of facilities that generate carbon, as well as other air pollutants;
- carbon capture, transmission, storage and reuse, including enhanced oil recovery;
- development of traditional as well as other energy sources such as wind, solar, and nuclear power;
- development of new technologies to reduce, extract, or otherwise control CO₂;
- compliance with foreign and domestic regional and state regulatory requirements pertaining to carbon; and
- litigation driven by climate change concerns

III. RELEVANCE OF ENVIRONMENTAL LAWS TO LITIGATION

Environmental programs create causes of action under both federal and state law. Because of the significant liabilities they create, these programs also are relevant in other litigation, especially cases involving contaminated property.

Environmental programs, especially those relating to pollution control, often contain requirements for permits or other approvals as a pre-condition to construction or operation of a facility. Both federal and state laws provide for public participation in permitting. The state pollution programs specifically provide opportunities for contested case hearings, which are essentially trials before an administrative law judge without a jury. These administrative hearings often entail significant discovery and involve, for the most part, expert testimony. Those adversely affected by the decision of a state regulatory agency generally may appeal to district court in Travis County, where a review is based on the record with deference given to the regulatory agency. Federal programs provide for an opportunity for a more limited hearing, generally involving prepared testimony and the right of cross-examination, and also provide for judicial review.

Agency enforcement actions seeking to compel compliance also generally provide opportunities for hearings. In the case of a state enforcement action, opportunity is afforded for a contested case hearing, but the public is not entitled to participate. Administrative enforcement proceedings also may be appealed under state law to Travis County district court, and, in the case of EPA, in general, to the EPA Administrator, and then to the courts. Agencies also may seek to enforce through both civil and criminal proceedings in state and federal court. In general, civil liability is strict, and criminal liability requires *mens rea*, but the requisite state of mind may be inferred and, under the Clean Water Act, for example, criminal liability can be based on negligence.

Sanctions under environmental statutes include penalties (and, in the case of criminal violations, imprisonment) and injunctive relief, both mandatory and prohibitory. Private citizens also may sue under so-called citizen suit provisions of federal statutes, to compel compliance, provided that the citizens first give notice to the defendant and to the agency charged with responsibility for enforcing the program that is alleged to be violated.

The Superfund statute has given rise to significant litigation. State and federal governments may bring actions to compel investigation and cleanup of sites, as well as recovery for natural resource damages. EPA and TCEQ also are authorized to issue administrative orders and to go into court directly to seek to compel remediation. Private parties also may seek to recover from other potentially responsible parties in contribution actions and possibly in cost-recovery actions as well. Although Superfund does not provide for toxic tort type liabilities, it does establish for those actions a discovery rule for tolling of the statute of limitations, which supersedes contrary state law.

Parties who incur environmental costs often file claims with their insurers seeking coverage. There is significant case law involving when and under what conditions an insurer is required to pay for pollution incidents.

Agency rulemaking gives rise to the potential for litigation. A regulated entity or other affected persons, for example, an environmental group, may challenge in court agency rules under both state and federal law. One area that has gained legislative and regulatory attention relates to whether a particular rulemaking constitutes a “taking.”

Environmental claims also give rise to bankruptcy proceedings. The interplay of environmental and bankruptcy law also has been a fertile ground for litigation.

Environmental issues often form the basis for commercial claims. For example, a seller of property may be sued by the purchaser who discovers contamination, on the basis of not only Superfund, but on contractual provisions as well. Claims also may be brought for fraud or other torts as a result of contamination.

Contamination and business activities also have given rise to a significant body of toxic tort litigation, brought by adjacent residents or property owners, invitees, or employees of sites that handle hazardous substances, as well as claims by adjacent, and possibly subsequent, landowners based on damage to, and diminution in value of, property alleged to be caused by contamination. These cases frequently have significant numbers of plaintiffs and may involve significant numbers of defendants as well – not only facility owners and operators, but also generators that sent their waste to a facility. Plaintiffs often will assert negligence *per se*, based on alleged violations of environmental laws. Employees also may use allegations of environmental wrongdoing as weapons against management in labor disputes. Employees who inform of actual violations are protected by whistle blower provisions of various environmental statutes.

As noted, concerns with climate change also have given rise to litigation. Suits for nuisance have arisen under federal and state common law seeking damages and injunctive relief for harm caused by climate change. Regulatory challenges also have arisen, seeking to require that GHGs be regulated, as in *Massachusetts v. EPA*, or taken into account under traditional environmental programs, such as those under the Clean Air Act, NEPA, and the Endangered Species Act.

Exhibit A

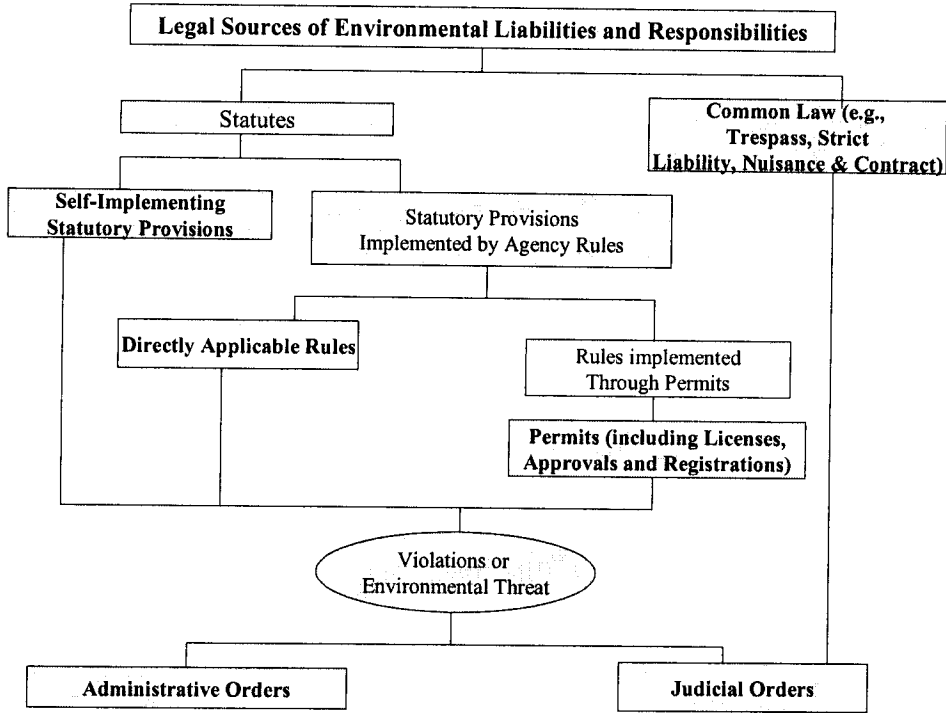
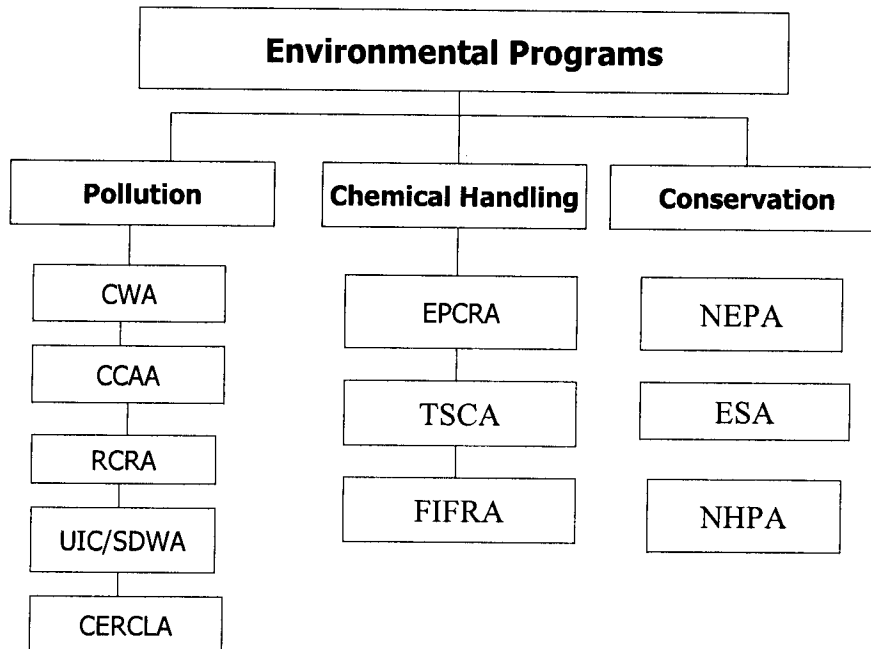
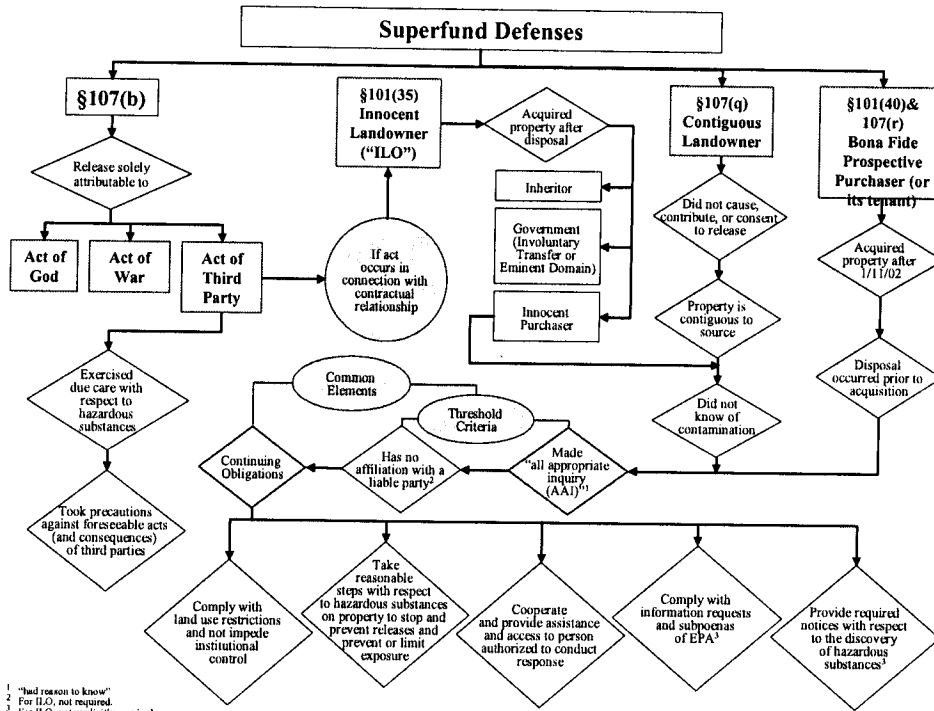


Exhibit B



- CWA – Clean Water Act
- CAA – Clean Air Act
- RCRA – Resource Conservation and Recovery Act
- UIC/SWDA – Underground Injection Control Program of the Safe Drinking Water Act
- CERCLA – Comprehensive Environmental Response, Compensation and Liability Act
- EPCRA – Emergency Planning and Community Right to Know Act
- TSCA – Toxic Substances Control Act
- FIFRA – Federal Insecticide, Fungicide and Rodenticide Act
- NEPA – National Environmental Policy Act
- ESA – Endangered Species Act
- NHPA – National Historic Preservation Act

Exhibit C



¹ "had reason to know"
² For ILO, not required.
³ For ILO, not explicitly required.

Exhibit D

ENVIRONMENTAL CONCERNS

- Cost of Compliance (Time and Money) – To attain and maintain compliance with present and future regulatory requirements
- Cost of Noncompliance – Costs associated with penalties and injunctive relief
 - Penalties include civil and criminal fines and, for criminal violations, the possibility of imprisonment
 - Injunctive Relief includes:
 - Mandatory - compelling certain actions to attain compliance or to remediate conditions resulting from noncompliance
 - Prohibitory - preventing operation in violation of law
- Cost of Investigation and Remediation – Superfund type liabilities that arise offsite as well as onsite
- Damage to Natural Resources – under Superfund and related statutes
- Damage to People (Toxic Tort) and to Property and Diminution in Property Value
- Land Use Restrictions – resulting from programs such as the Endangered Species Act, National Historic Preservation Act, and Clean Air Act

Exhibit E

haynesboone
Setting precedent

Environmental Concerns -- Assets v. Stocks

	Assets Purchase	Stock Purchase
Onsite Conditions	X	X
Offsite Conditions		
Migration		
- Groundwater	X	X
- Air		X
Transport/Disposal		X
Formerly Owned		X
Land Use	X	X
Non-Compliance		
Past		X
Present	X	X

Exhibit F

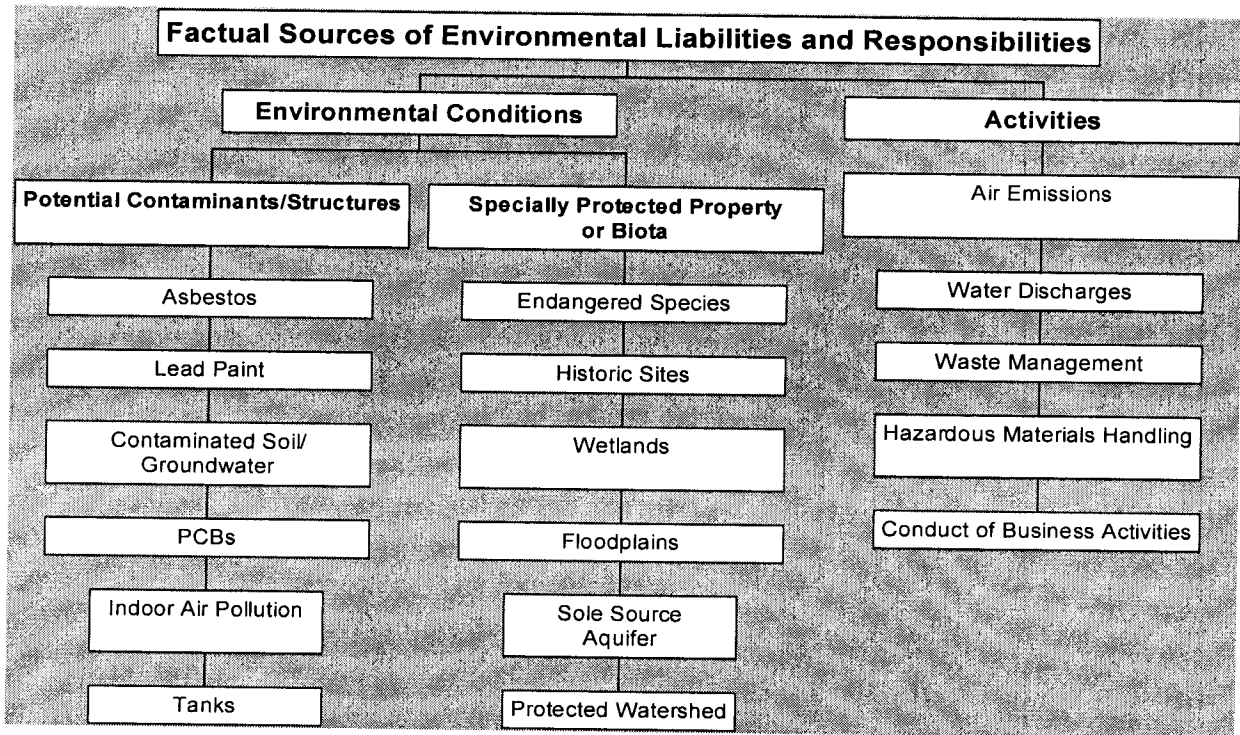
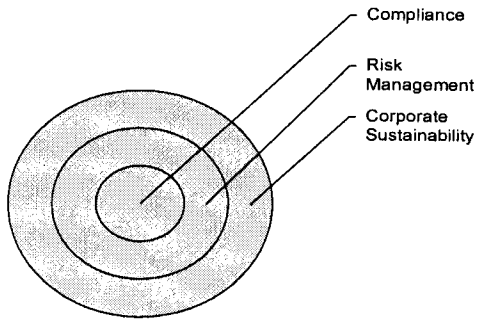


Exhibit G

Hierarchy of Environmental Policies



Compliance	focus on avoiding regulatory liability
Risk Management	focus on avoiding regulatory, common law, and Superfund-type liabilities
Corporate Sustainability	focus on integrating environmental considerations into corporate decision-making with objective of minimizing environmental footprint