
TABLE OF CONTENTS

PREFACE TO THE FOURTH EDITION.....	V
ACKNOWLEDGMENTS.....	IX
TABLE OF CASES.....	XXV

INTRODUCTION TO ENVIRONMENTAL PRACTICE AND POLICY

Chapter 1. An Introduction to Environmental Law in Practice	1
I. Environmental Protection in Context—The View from the Trenches ...	2
Fracking Along the Susquehanna River	3
Development and the Delhi Sands Flower-Loving Fly.....	6
Questions and Discussion.....	15
II. The Drivers of Environmental Conflicts	17
A. Scientific Uncertainty	18
B. Market Failures	20
1. Public Goods	21
2. The Tragedy of the Commons.....	21
3. Collective Action and Free Riders	22
4. Externalities	23
C. Mismatched Scales.....	24
D. Conflicting Values	26
E. Environmental Justice.....	30
Questions and Discussion.....	34
III. Tools for Environmental Protection—“The Five P’s”.....	36
A. Prescriptive Regulation	36
B. Property Rights	37
C. Penalties	39
D. Payments	40
E. Persuasion	40
Questions and Discussion.....	41
IV. What Do Environmental Lawyers Do?	42
A. An Evolving Field of Law	43
B. An Evolving Practice of Law	46

PART 1. APPROACHES TO ENVIRONMENTAL LAW

Chapter 2. Protecting Endangered Species.....	51
I. Identifying Which Species to Protect.....	54
A. Eligibility for Listing.....	57
Northwest Ecosystem Alliance v. United States Fish and Wildlife Service.....	57
Questions and Discussion.....	65
B. Determining Whether a Species Is Endangered or Threatened.....	69
Tucson Herpetological Society v. Salazar	69
Questions and Discussion.....	77
Problem Exercise: Listing the Cow Knob Salamander.....	79

II.	Federal Government Responsibilities Under the Endangered Species Act.....	81
A.	Listing Agency Responsibilities Under the ESA.....	81
1.	Critical Habitat	81
	Markle Interests v. United States Fish & Wildlife Service	82
	Questions and Discussion	90
2.	Recovery Plans	94
B.	Responsibilities of All Federal Agencies Under the ESA	96
1.	The Consultation Duty	98
	Karuk Tribe of California v. United States Forest Service	98
	Notes & Questions.....	109
2.	The Jeopardy Prohibition	111
	Tennessee Valley Authority v. Hill	111
	Questions and Discussion	121
III.	Private Party Responsibilities Under the Endangered Species Act.....	125
A.	The Scope of the “Take” Prohibition	126
	Babbitt v. Sweet Home Chapter of Communities for a Great Oregon.....	126
	Questions and Discussion	130
B.	Constitutional Objections to the “Take” Prohibition	133
1.	Congressional Power to Protect Endangered Species.....	133
	Rancho Viejo, LLC v. Norton.....	133
	Questions and Discussion	137
2.	Duties to Compensate Property Owners Affected by Endangered Species Regulations	139
	Good v. United States	139
	Questions and Discussion	144
C.	Incidental Take Permits and Habitat Conservation Plans	148
	Problem Exercise.....	152
	Chapter 3. The Clean Air Act	155
I.	Air Pollution Regulation Before 1970.....	157
	Madison v. Ducktown Sulphur Copper & Iron Co.	157
	Georgia v. Tennessee Copper Co.....	160
	Questions and Discussion.....	162
II.	Overview of the Clean Air Act	165
III.	National Ambient Air Quality Standards (NAAQS)	170
A.	Establishing NAAQS	174
	Questions and Discussion.....	175
B.	Revising NAAQS	177
	Whitman v. American Trucking Associations, Inc.	178
	Questions and Discussion.....	182
	National Environmental Development Association’s Clean Air Project v. EPA.....	183
	Questions and Discussion.....	188

- IV. State Implementation Plans (SIPs) 189
 - A. Overview 189
 - B. EPA Review and Approval of SIPs..... 190
 - Environmental Protection Agency v. EME Homer City
Generation 191
 - Questions and Discussion 200
 - C. Nonattainment of NAAQS and the SIP Process 201
- V. Regulating and Permitting New and Modified Sources of Air
Pollution 204
 - A. New Source Performance Standards 204
 - B. New Source Review 207
 - Utility Air Regulatory Group v. Environmental Protection
Agency, et al..... 209
 - Questions and Discussion 215
- VI. Title V Operating Permits 216
- VII. Alternative Regulatory Approaches..... 217
 - A. Motor Vehicles 218
 - Central Valley Chrysler-Jeep, Inc. v. Goldstene 220
 - Questions and Discussion 229
 - B. Acid Rain Emissions Trading 230
 - Alliance for Clean Coal v. Bayh 231
 - Questions and Discussion 234

Chapter 4. Protecting Water Resources237

- I. Regulation of Point and Nonpoint Source Water Pollution 237
 - A. History and Development of Water Pollution Law 237
 - B. Clean Water Act Overview 239
 - C. Regulated Point Source Discharges 240
 - Friends of the Everglades v. South Florida Water
Management District 241
 - Questions and Discussion 249
 - Natural Resources Defense Council, Inc. v. U.S. EPA 251
 - Questions and Discussion 257
 - D. The Nonpoint Source Pollution Problem 257
 - Questions and Discussion 261
 - E. Water Quality Standards and Total Maximum Daily Load
(TMDL) Programs 265
 - Pronsolino v. Nastri 267
 - Friends of Pinto Creek v. EPA 272
 - Questions and Discussion 276
 - F. The Safe Drinking Water Act (SDWA) 283
 - Questions and Discussion 285
- II. Wetlands Protection..... 287
 - A. Jurisdictional Wetlands: *Riverside Bayview Homes*,
SWANCC, and *Rapanos*..... 290
 - United States v. Cundiff 294
 - Questions and Discussion 303

B.	Regulated Discharges	309
	National Association of Home Builders v. U.S. Army Corps of Engineers	309
	Questions and Discussion	313
C.	Permitting and Mitigation	314
	1. The Permitting Process	314
	Coeur Alaska, Inc. v. Southeast Alaska Conservation Council	316
	Questions and Discussion	322
	2. Wetland Mitigation	323
	Questions and Discussion	327
III.	The Public Trust Doctrine	329
	National Audubon Society v. Superior Court of Alpine County	331
	Questions and Discussion	335
	Note on Water Rights	342

Chapter 5. Regulating and Remediating Hazardous Substances and Waste

	and Waste	349
I.	The Resource Conservation and Recovery Act (RCRA)	349
	A. What Is It? The Definitions of Solid and Hazardous Waste	351
	1. Solid Waste and Strategic Behavior	351
	United States v. Interstate Lead Company, Inc.	354
	Questions and Discussion	358
	2. Solid Hazardous Waste and Closing Loopholes	359
	Hazardous Waste Identification Flowchart	361
	Questions and Discussion	367
	B. Who am I? Generators, Transporters, and TSDFs	367
	Questions and Discussion	371
II.	The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)	376
	Remarks of President Carter on Signing Public Law 96–510, Dec. 11, 1980	377
	Questions and Discussion	378
	A. The CERCLA Cleanup Process	380
	1. Overview of CERCLA Cleanups	380
	United States v. E.I. DuPont de Nemours and Company	381
	Questions and Discussion	384
	2. The National Priorities List (NPL)	385
	B & B Tritech, Inc. v. United States Environmental Protection Agency	386
	Questions and Discussion	390
	B. Which Cleanup Costs May Be Recovered?	391
	Regional Airport Authority of Louisville and Jefferson County v. LFG, LLC	393
	Questions and Discussion	401
	Problem Exercise	404

C.	Who Pays for CERCLA Cleanups?.....	405
1.	Responsible Parties: Owners, Operators, Transporters, Arrangers, and Generators.....	405
	New York v. Shore Realty Corp.....	406
	Questions and Discussion.....	413
	American Cyanamid Company v. Capuano.....	417
	Questions and Discussion.....	421
	Burlington Northern & Santa Fe Railway Co. v. United States.....	423
	Questions and Discussion.....	428
2.	Allocating Liability Among Responsible Parties.....	429
	Burlington Northern and Santa Fe Railway Co. v. United States.....	429
	Questions and Discussion.....	432
3.	Government Liability.....	434
	Cadillac Fairview/California, Inc. v. Dow Chemical Company.....	434
	Questions and Discussion.....	443
4.	Settlements.....	444
	United States v. Southeastern Pennsylvania Transportation Authority.....	444
	Questions and Discussion.....	452
	Problem Exercise.....	453
D.	Private Cost Recovery and Contribution Under CERCLA.....	454
	Cooper Industries, Inc. v. Aviall Services, Inc.	455
	Questions and Discussion.....	461
	United States v. Atlantic Research Corporation.....	462
	Questions and Discussion.....	468

Chapter 6. Information Disclosure.....471

I.	The National Environmental Policy Act.....	472
A.	Introduction.....	472
B.	Is an EIS Required?.....	478
1.	Major Actions.....	478
	Thomas v. Peterson.....	480
	Questions and Discussion.....	484
2.	Significantly Affecting the Human Environment.....	486
3.	Timing and Tiering.....	487
4.	Categorical Exclusions.....	490
	Deep Water: The Gulf Oil Disaster and the Future of Offshore Drilling.....	491
	Questions and Discussion.....	493
a.	Foreign Actions.....	496
	Questions and Discussion.....	497
5.	Mitigation.....	498
	Cabinet Mountains Wilderness v. Peterson.....	498
	Questions and Discussion.....	500
	Problem Exercise: Developing the Squaw Valley Resort.....	503

C.	Is the EIS Adequate?	504
1.	Sufficiency of Analysis	504
2.	Alternatives Analysis	506
	Simmons v. U.S. Army Corps of Engineers	507
	WildEarth Guardians v. National Park Service	513
	Questions and Discussion	519
	Problem Exercise: Supplementation of Environmental Analyses	520
D.	Chipping Away at NEPA	521
1.	NEPA and National Security	521
	Washington County, North Carolina v. U.S. Department of the Navy	521
	Questions and Discussion	529
	Problem Exercise: NRDC v. Winter	532
2.	Energy, Forests, Grazing, and Water	535
E.	Does NEPA Work?	537
II.	Private Information Disclosure Statutes	540
A.	The Toxics Release Inventory	541
	Bradley C. Karkkainen, <i>Information as Environmental Regulation: TRI and Performance Benchmarking, Precursor to a New Paradigm?</i>	542
	Questions and Discussion	548
B.	California's Proposition 65	552
	James Salzman and Barton H. Thompson, Jr.	553
	Questions and Discussion	554
C.	Information and Climate Change	556
	Michael P. Vandenbergh and Jonathan Gilligan, <i>Beyond Gridlock</i>	556
	Questions and Discussion	559
	Chapter 7. Public Lands	561
I.	Multiple Use Management: The National Forests	563
	Questions and Discussion.....	570
	U.S. Forest Service, Department of Agriculture, National Forest System Land and Resource Management Planning; Final Rule	576
	Questions and Discussion.....	578
	Ecology Center, Inc. v. Austin	580
	The Lands Council v. McNair	583
	Questions and Discussion.....	591
II.	Dominant Use Management: National Parks.....	592
	River Runners for Wilderness v. Martin	593
	Questions and Discussion.....	599
	National Parks & Conservation Association v. Babbitt	601
	Questions and Discussion.....	608
III.	Single Use Management: Wilderness Areas	612
	Wilderness Watch and Public Employees for Environmental Responsibility v. Mainella	613
	Questions and Discussion.....	620

Norton v. Southern Utah Wilderness Alliance 622
 Questions and Discussion..... 629

Chapter 8. Climate Change.....633

I. The Problem of Climate Change 633
 A. Climate Science 633
 B. Impacts of Climate Change 639
 C. Attitudes Toward Climate Change 644

II. Responding to Climate Change..... 647
 A. The Clean Air Act..... 653
 Massachusetts v. Environmental Protection Agency 653
 Questions and Discussion..... 665
 Utility Air Regulatory Group v. EPA..... 665
 Questions and Discussion..... 676
 Problem Exercise..... 676
 B. The Endangered Species Act 677
 Safari Club International v. Salazar 678
 Questions and Discussion..... 685
 C. National Environmental Policy Act 686
 Center for Biological Diversity v. Kempthorne 687
 Questions and Discussion..... 691
 D. Federal Common Law & Other Federal Laws 692
 Native Village of Kivalina v. ExxonMobil Corporation 692
 Questions and Discussion..... 696
 E. State and Local Laws..... 698
 In re Otter Tail Power Company..... 698
 Questions and Discussion..... 708
 Association of Irrigated Residents v. California Air Resources
 Board..... 709
 Questions and Discussion..... 719
 F. Developing Renewable Energy..... 719
 Zimmerman v. Board of County Commissioners 720
 Questions and Discussion..... 727
 Oregon Natural Desert Association v. Jewell 728
 Protect Our Communities Foundation v. Jewell..... 735
 Questions and Discussion..... 744
 G. International Legal Responses..... 746
 Adoption of the Paris Agreement 749
 Questions and Discussion..... 751

PART 2. THE PRACTICE OF ENVIRONMENTAL LAW

Chapter 9. Administrative Rulemaking and Permitting.....757

I. Introduction to the Administrative State..... 757
 A. The Source and Scope of Agency Authority..... 760
 Kelley v. Environmental Protection Agency..... 761
 Questions and Discussion..... 767
 B. Judicial Review of Agency Action 768
 Citizens to Preserve Overton Park, Inc. v. Volpe..... 770

II.	Rulemaking Proceedings	778
	U.S. Environmental Protection Agency, Developing Regulations:	
	From Start to Finish	779
A.	The Notice and Comment Process	782
	Department of the Interior, Fish and Wildlife Service, and	
	Department of Commerce, National Oceanic and	
	Atmospheric Administration, Notice of Availability of	
	Final Handbook for Habitat Conservation Planning and	
	Incidental Take Permitting Process.....	782
	Questions and Discussion	785
	Department of the Interior, Fish and Wildlife Service, and	
	Department of Commerce, National Oceanic and	
	Atmospheric Administration, No Surprises Policy,	
	Proposed Rule	787
	Questions and Discussion	792
	National Association of Home Builders, Letter to Laverne	
	Smith, Chief, Division of Endangered Species, U.S. Fish	
	and Wildlife Service	792
	Spirit of the Sage Council, Letter to Laverne Smith, Chief,	
	Division of Endangered Species, U.S. Fish and Wildlife	
	Service.....	796
	Questions and Discussion	801
B.	Post-Promulgation Litigation.....	803
	Spirit of the Sage Council v. Norton	804
	Questions and Discussion	810
III.	Permitting Proceedings	812
	U.S. Army Corps of Engineers, Regulatory Program Overview	812
A.	The Permitting Process	815
	National Wind Coordinating Committee, Handbook on	
	Permitting of Wind Energy Facilities	816
	Questions and Discussion	825
B.	Individual Permits	827
	Airport Communities Coalition v. Graves	828
	Questions and Discussion	836
	Note on Mitigation Policy	837
C.	General Permitting	840
	National Association of Home Builders v. United States Army	
	Corps of Engineers	840
	Questions and Discussion	846
	Chapter 10. Compliance Counseling	849
I.	Interpreting Statutes and Regulations	850
A.	Overview of Statutory Interpretation	851
	BedRoc Limited, LLC v. United States	851
	Questions and Discussion	858
B.	A Green Canon of Statutory Interpretation	861
	Daniel A. Farber, <i>Eco-pragmatism</i>	861
	Questions and Discussion	863

C.	Agency Interpretations of Environmental Statutes	864
	Chevron U.S.A. Inc. v. Natural Resources Defense Council, Inc.	864
	Questions and Discussion	871
II.	Stages of Compliance	873
A.	Planning: Identifying Compliance Issues and Options	873
	National Wind Coordinating Committee, Handbook on Permitting of Wind Energy Facilities	873
	Questions and Discussion	878
	United States Fish and Wildlife Service, Wildlife Laws Relevant To Wind Power Development Projects	879
	Questions and Discussion	882
	United States Fish and Wildlife Service, Land-Based Wind Energy Guidelines	883
	Questions and Discussion	886
	Animal Welfare Institute v. Beech Ridge Energy LLC	888
	Questions and Discussion	897
B.	Monitoring: Assessing Compliance Status	897
	J.B. Ruhl, James Salzman, Kai-Sheng Song, & Han Yu, <i>Environmental Compliance: Another Corporate Integrity Crisis or Too Many Traps for the Unwary?</i>	898
	Questions and Discussion	908
	U.S. Environmental Protection Agency, Protocol for Conducting Environmental Compliance Audits for Hazardous Waste Generators under RCRA	910
	Questions and Discussion	914
C.	Disclosing: Reporting Noncompliance	914
1.	Compliance Audit Result Disclosures	915
	Texas Council on Environmental Quality, Guidance on the Texas Environmental, Health, and Safety Audit Privilege Act	916
	Questions and Discussion	921
	EPA Summary of Audit Policy	922
	Questions and Discussion	924
2.	Securities Registration Disclosures	927
	Environmental Protection Agency, Guidance on Distributing the “Notice of SEC Registrants’ Duty to Disclose Environmental Legal Proceedings” in EPA Administrative Enforcement Actions	928
	Questions and Discussion	930
III.	Compliance Strategies	933
A.	Environmental Management Systems	934
	New York Department of Environmental Conservation, Environmental Management Systems	934
	Environmental Protection Agency, Position Statement on Environmental Management Systems	935
	Questions and Discussion	937

B.	Compliance Incentive Programs	939
	Dennis D. Hirsch, <i>Lean and Green? Environmental Law and Policy and the Flexible Production Economy</i>	940
	Questions and Discussion	944
	Chapter 11. Enforcement	947
I.	Overview of the Enforcement Process	948
A.	Introduction	948
B.	Who Are the Players?.....	950
	Joel A. Mintz, <i>Civil Enforcement</i> , in PRACTICAL GUIDE TO ENVIRONMENTAL LAW (Michael Gerrard, ed.)	951
	Questions and Discussion	954
1.	Federal-State Tensions	956
	J.B. Ruhl, James Salzman, and Kai-Sheng Song <i>Regulatory Traffic Jams</i>	957
	Statement of Christophe A.G. Tulou, Secretary, DELAWARE DEPT. OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL BEFORE THE SENATE COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS	960
2.	Overfiling	961
	Harmon Industries, Inc. v. Browner	962
	Questions and Discussion	965
II.	The Enforcement Process	967
A.	Monitoring and Detecting Noncompliance	967
	Questions and Discussion	969
	Problem Exercise: Audit Immunity Policies	971
B.	Civil Enforcement	972
1.	Administrative Proceedings	972
2.	Civil Proceedings	974
3.	Remedies.....	975
	a. Civil Penalty Policies	976
	Joel A. Mintz, <i>Civil Enforcement</i> , in MICHAEL GERRARD, ED. PRACTICAL GUIDE TO ENVIRONMENTAL LAW	977
	b. Enforcement Against Federal Facilities	979
	c. Injunctions	979
	Weinberger v. Romero-Barcelo	980
	Questions and Discussion	984
	d. Supplemental Projects and Nontraditional Remedies	986
	EPA, Final Supplemental Environmental Projects Policy	987
	Questions and Discussion	989
C.	Criminal Enforcement	991
1.	Intent	992
	United States v. Ahmad.....	992
	Questions and Discussion	997
2.	Responsible Corporate Officer Doctrine	998
	Questions and Discussion	1000

Problem Exercise: Prosecuting an Environmental Crime	1001
Problem Exercise: Prosecutorial Discretion	1003
Lois J. Schiffer and James Simon, <i>The Reality of Prosecuting Environmental Criminals: A Response to Professor Lazarus</i>	1003
Richard J. Lazarus, <i>The Reality of Environmental Law in the Prosecution of Environmental Crimes: A Reply to the Department of Justice</i>	1005
Questions and Discussion	1006
III. Citizen Suits	1007
James R. May, <i>Now More Than Ever: Trends In Environmental Citizen Suits At 30</i>	1008
Questions and Discussion.....	1010
A. When Can You Sue?.....	1012
Gwaltney of Smithfield, Ltd. v. Chesapeake Bay Foundation.....	1013
Questions and Discussion.....	1018
B. Standing.....	1021
1. Injury in Fact.....	1022
2. Zone of Interests	1024
3. Redressability	1025
Friends of the Earth v. Laidlaw Environmental Services	1025
Questions and Discussion	1033
Problem Exercise: Clean Air Act Violations and the Wood Products Industry.....	1035
IV. Certification and Private Governance	1052
Michael P. Vandenberg, <i>Private Environmental Governance</i>	1052
Questions and Discussion.....	1057
Chapter 12. Private Litigation	1059
I. Common Law Causes of Action.....	1059
A. The Case for the Common Law	1059
Richard Epstein, <i>Environmental Law 101</i>	1062
Questions and Discussion.....	1066
B. Property Damage Litigation.....	1067
1. Liability for Improper Land Use	1067
Corvello v. New England Gas Co., Inc.	1067
Questions and Discussion	1078
2. Products Liability	1079
United States v. Union Corp.	1080
Questions and Discussion	1086
C. Personal Injury Litigation	1086
Lockheed Martin Corp. v. Carrillo	1087
Questions and Discussion.....	1094
Problem Exercise.....	1096
D. Fraud Claims Litigation	1097
Keywell Corp. v. Weinstein	1098

	Questions and Discussion	1103
E.	Ecological Injury Litigation.....	1103
	J.B. Ruhl, <i>Ecosystem Services and the Common Law of “The Fragile Land System”</i>	1104
	Questions and Discussion.....	1110
F.	Common Law Claims Against the Government.....	1112
	San Carlos Apache Tribe v. United States	1112
	Questions and Discussion.....	1117
G.	Expert Testimony and the Burden of Proof.....	1118
	Martin v. Shell Oil Co.	1119
	Questions and Discussion	1125
II.	Insurance Recovery Litigation	1126
A.	Legal Claims and Obligations	1128
	Northern Illinois Gas Co. v. Home Ins. Co.	1128
	Questions and Discussion.....	1134
B.	Accidents and Occurrences.....	1135
	EnergyNorth Natural Gas, Inc. v. Underwriters at Lloyd’s.....	1135
	Questions and Discussion.....	1143
C.	Pollution Exclusion Clauses	1144
	Travelers Casualty and Surety Co. v. Ribl Immunochem Research, Inc.	1144
	Questions and Discussion.....	1151
	Nav-Its, Inc. v. Selective Insurance Company of America	1152
	Questions and Discussion.....	1156
	Problem Exercise.....	1158
	Chapter 13. Business Transactions	1159
I.	Environmental Due Diligence in Business Transactions.....	1161
A.	Protecting Buyer and Seller in Stock and Asset Acquisitions	1162
	Sara Beth Watson and Kristina M. Woods, <i>Environmental Issues in Transactions: Old Swamps and New Bridges</i>	1164
	Keywell Corporation v. Piper & Marbury, L.L.P.	1171
	Questions and Discussion.....	1176
	Problem Exercise.....	1179
B.	Satisfying Liability Exemption Conditions Through “All Appropriate Inquiry”.....	1180
	Environmental Protection Agency, Standards and Practices for All Appropriate Inquiries, Final Rule	1181
	Questions and Discussion.....	1188
II.	Drafting Environmental Contract Provisions.....	1191
	Keywell Corporation v. Weinstein	1195
	Questions and Discussion.....	1200
	Problem Exercise	1201
	INDEX	1203