

TABLE OF CONTENTS

PREFACE	V
TABLE OF CASES	XXI
TABLE OF ACRONYMS	XXIX
Chapter 1. Introducing Environmental Law	1
A. Environmental Protection: An Overview.....	2
1. Major Themes	2
Jonathan Cannon, Environmentalism and the Supreme Court: A Cultural Analysis.....	4
Notes.....	7
Dan Tarlock, Is There a There There in Environmental Law?	7
Note	11
Gerald Torres, Environmental Justice: The Legal Meaning of a Social Justice Movement.....	12
Note	17
2. The History of Environmental Law.....	18
Richard J. Lazarus, The Greening of America and the Graying of United States Environmental Law: Reflections on Environmental Law’s First Three Decades in the United States.....	18
Note on U.S. Environmental Law Since 2000	23
B. The Environment as Commons	26
1. Environmental Protection and the Dynamics of Collective Action	26
2. Applying Commons Analysis: Fisheries.....	30
Pacific Coast Federation v. Blank	31
Notes.....	35
3. The Case of Global Climate Change.....	35
Green Mountain Chrysler Plymouth Dodge Jeep v. Crombie	36
Climate Science and Impacts of Climate Change	39
The Global Response to Climate Change.....	43
Chapter 2. Approaches to Risk Regulation.....	47
A. Risk-Based Approaches.....	48
Environmental Protection Agency, Guidelines for Carcinogen Risk Assessment and Supplemental Guidance for Assessing Susceptibility from Early-Life Exposure to Carcinogens.....	50
Notes	53
Reserve Mining Co. v. Environmental Protection Agency.....	55
Notes	61
Industrial Union Department, AFL-CIO v. American Petroleum Institute	63

	Notes	74
B.	Economic Approaches.....	77
	American Textile Manufacturers Institute, Inc. v. Donovan	80
	Notes	82
	Steve P. Calandrillo, Responsible Regulation: A Sensible Cost-Benefit, Risk versus Risk Approach to Federal Health and Safety Regulation	84
	Notes	87
	Frank Ackerman and Lisa Heinzerling, Pricing the Priceless: Cost- Benefit Analysis of Environmental Protection	88
	Notes	92
	Daniel H. Cole, The Stern Review and Its Critics: Implications for the Theory and Practice of Benefit-Cost Analysis	93
	Notes on Cost-Benefit Analysis and Climate Change.....	99
C.	Equity-Based Approaches.....	100
	1. Evidence of Unequal Risk Levels	100
	Richard J. Lazarus, Pursuing “Environmental Justice”: The Distributional Effects of Environmental Protection	100
	Omar Saleem, Overcoming Environmental Discrimination: The Need for a Disparate Impact Test and Improved Notice Requirements in Facility Siting Decisions.....	103
	Notes.....	106
	2. The Legal Implementation of Environmental Justice	108
	3. Equity Issues and Global Climate Change.....	111
	Eric Posner and Cass Sunstein, Climate Justice	111
	Notes.....	116
D.	Tort Law and the Environment.....	117
	Albert C. Lin, Beyond Tort: Compensating Victims of Environmental Toxic Injury.....	118
	Notes	121
	State v. Ventron Corp.	122
	Notes	125
	Ayers v. Township of Jackson.....	126
	Notes	129
	Chapter 3. Endangered Species	133
A.	Introduction to the Endangered Species Act.....	133
	John Kunich, Preserving the Womb of the Unknown Species with Hotspots Legislation.....	133
	M. Lynne Corn, Kristina Alexander, and Eugene H. Buck, The Endangered Species Act: A Primer	136
	Tennessee Valley Authority v. Hill	139
	Notes	147
B.	Listing: Section 4.....	148
	1. Listing Endangered and Threatened Species.....	148
	In re Polar Bear Endangered Species Act Listing and Section 4(d) Rule Litigation—MDL No. 1993	149

Notes.....	154
J.B. Ruhl, Climate Change and the Endangered Species Act: Building Bridges to the No-Analog Future	157
Note on Climate Change and the ESA.....	161
2. Critical Habitat.....	162
Northern Spotted Owl v. Lujan	163
Notes.....	167
Note on the Continuing Spotted Owl Controversy.....	169
C. Consultation: Section 7	172
Thomas v. Peterson	173
Notes	175
D. The Take Prohibition: Section 9.....	179
Babbitt v. Sweet Home Chapter of Communities for a Great Oregon	180
Notes	187
E. Incidental Take Statements	190
Arizona Cattle Growers' Ass'n v. United States Fish and Wildlife Service	191
Notes	194
F. Recovery of Listed Species: Section 4(f).....	195
Federico Cheever, The Road to Recovery: A New Way of Thinking about the Endangered Species Act.....	196
Notes	199
G. Habitat Conservation Plans: Section 10.....	200
Shi-Ling Hsu, The Potential and Pitfalls of Habitat Conservation Planning under the Endangered Species Act	202
Notes	206
H. Assessing the ESA.....	207
Eric Biber, The Application of the Endangered Species Act to the Protection of Freshwater Mussels: A Case Study	207
Notes	210
Chapter 4. Environmental Protection and the Constitution	213
A. Uniformity Versus Diversity in Environmental Regulation	214
Richard L. Revesz, The Race to the Bottom and Federal Environmental Regulation: A Response to Critics.....	214
Notes	217
Richard B. Stewart, Environmental Quality as a National Good in a Federal State	218
Notes	221
B. The Scope of Federal Power.....	222
Missouri v. Holland.....	222
Notes	224
Hodel v. Indiana	225
Notes	226

1.	The Revival of Limits on the Commerce Clause	227
	Solid Waste Agency of Northern Cook County [SWANCC] v. United States Army Corps of Engineers	228
	Notes.....	228
	Alabama-Tombigbee Rivers Coalition v. Kempthorne.....	229
	Notes.....	233
2.	State Sovereignty and Environmental Law	234
	New York v. United States	234
	Notes.....	238
C.	Commerce Clause Restrictions on State Power	239
	Rocky Mountain Farmers Union v. Corey	242
	Energy & Environmental Law Inst. v. Epel.....	249
	Note	252
D.	Federal Preemption of State Statutes	252
	Engine Manufacturers Ass'n and Western States Petroleum Ass'n v. South Coast Air Quality Management District.....	254
	Notes	257
	Metropolitan Taxicab Board of Trade v. City of New York	258
	Notes	260
	Note on State Regulation of Greenhouse Gases.....	261
	Note on Environmental Regulation and International Trade.....	262
E.	Regulation and Property Rights.....	267
1.	The Takings Clause.....	267
	Lucas v. South Carolina Coastal Council	269
	Notes.....	274
	Murr v. Wisconsin	275
	Notes.....	281
2.	The Public Trust Doctrine.....	282
	Illinois Central Railroad Co. v. Illinois	282
	Notes.....	283
	Marks v. Whitney	284
	Notes.....	286
	Michael C. Blumm and Lucas Ritchie, <i>Lucas's Unlikely Legacy:</i> The Rise of Background Principles as Categorical Takings Defenses	289
	Notes.....	292
	Meg Caldwell and Craig Holt Segall, <i>No Day at the Beach: Sea Level Rise, Ecosystem Loss, and Public Access along the California Coast</i>	293
	Notes.....	295
	Chapter 5. Judicial Review and Administrative Process.....	297
A.	Understanding the Administrative State.....	297
B.	Standing.....	299
1.	Injury-in-Fact.....	299
	Sierra Club v. Morton.....	299
	Notes.....	304

	Lujan v. Defenders of Wildlife	306
	Notes.....	310
	Friends of the Earth, Inc. v. Laidlaw Environmental Services (TOC), Inc.....	312
	Notes.....	315
	Massachusetts v. EPA.....	316
	Notes.....	323
	A Note on Climate-Based Standing.....	324
	Summers v. Earth Island Institute	325
	Notes.....	327
	Note on the Zone of Interests Requirement.....	328
	Note on the Complexity of Standing Doctrine.....	330
2.	Citizen Suits	332
	Mark Seidenfeld and Janna Satz Nugent, “The Friendship of the People”: Citizen Participation in Environmental Enforcement	332
	Notes on Citizen Suits.....	335
C.	Legal Bases for Challenging Agency Action	337
1.	Constitutional Challenges	337
	Whitman v. American Trucking Associations, Inc.	338
	Notes.....	340
2.	Statute-Based Challenges.....	341
	Citizens to Preserve Overton Park, Inc. v. Volpe	343
	Notes.....	347
	A Note on Judicial Review of Agency Procedures	349
	Chevron, U.S.A. Inc. v. Natural Resources Defense Council.....	351
	Notes.....	356
D.	The National Environmental Policy Act.....	357
1.	Threshold Requirements.....	359
	Metropolitan Edison Co. v. People Against Nuclear Energy	359
	Notes.....	362
	Hanly v. Kleindienst [Hanly II].....	364
	Notes.....	366
2.	Scope and Timing of the EIS	368
	Kleppe v. Sierra Club	369
	Notes.....	374
	Marsh v. Oregon Natural Resources Council	376
	Notes.....	379
	Center for Biological Diversity v. National Highway Traffic Safety Administration	380
	Notes.....	382
3.	Content of the Impact Statement.....	383
	Vermont Yankee Nuclear Power Corp. v. Natural Resources Defense Council, Inc.	383
	Notes.....	385
	Robertson v. Methow Valley Citizens Council.....	387
	Notes.....	391

4.	NEPA's Past and Future.....	392
Chapter 6. Air Pollution.....		397
A.	The Common Law	397
1.	Private Nuisance	397
	Boomer v. Atlantic Cement Company.....	398
	Notes.....	402
	Ronald Coase, The Problem of Social Cost	403
	Notes.....	406
2.	Public Nuisance	408
	Spur Industries, Inc. v. Del E. Webb Development Co.	408
	Notes.....	410
	American Electric Power Co., Inc., et al. v. Connecticut	411
	Notes.....	415
B.	Government Regulation of Air Quality	416
1.	The Clean Air Act	418
2.	History of Clean Air Legislation.....	419
3.	Helpful Distinctions Regarding the Clean Air Act.....	423
a.	Harm-Based vs. Technology-Based Regulation.....	423
b.	Stationary vs. Mobile Sources.....	424
c.	New vs. Existing Sources	424
d.	Attainment vs. Nonattainment Areas.....	425
e.	Major vs. Non-Major Sources.....	426
4.	Overview of the Clean Air Act	427
C.	The Basics of the Clean Air Act.....	431
1.	Air Quality Standards.....	431
a.	Criteria Pollutants.....	432
b.	Listing Pollutants	434
	Natural Resources Defense Council, Inc. v. Train	434
	Notes.....	437
c.	Setting Air Standards	438
	Lead Industries, Inc. v. EPA.....	439
	Notes.....	448
d.	The Role of Cost in Standard Setting.....	449
	Whitman v. American Trucking Associations, Inc.	449
	Notes.....	455
D.	Major Provisions of the CAA	456
1.	State Implementation Plans.....	456
	Union Electric Co. v. EPA.....	458
	Note	461
	Train v. Natural Resources Defense Council, Inc.	461
	Notes.....	464
	Citizens Against the Refinery's Effects, Inc. v. EPA.....	465
	Notes.....	469
2.	Hazardous Air Pollutants	470
	National Mining Association v. EPA.....	472
	Notes.....	475

	Michigan v. EPA	476
	Notes.....	482
3.	PSD Areas	483
4.	The Nonattainment Problem.....	484
	Delaney v. EPA.....	485
	Notes.....	487
	Whitman v. American Trucking Associations, Inc.	490
	Notes.....	492
5.	New Source Performance Standards.....	493
6.	New Source Review	494
	a. What Does NSR Require?	495
	b. Triggering NSR.....	495
	i. “Major Stationary Source”.....	495
	ii. “Modified Source”.....	496
	iii. The Interaction of NSPS and NSR	497
7.	Title V Permits	498
E.	Mobile Source, Spillovers and Other Special Provisions of the Clean Air Act.....	500
1.	Mobile Sources	500
	a. History of Mobile Source Provisions.....	501
	International Harvester Co. v. Ruckelshaus	502
	Notes.....	507
	b. California’s Special Status in Emissions Regulation	510
	c. Clean Fuels	512
	d. Inspection and Maintenance Programs and Transportation Controls	514
	Notes.....	515
2.	Interstate Air Pollution.....	515
	a. Overview.....	515
	b. Interstate Ozone and NO _x	517
	EPA v. EME Homer City Generation.....	519
	Notes.....	529
3.	Greenhouse Gas Emissions and the Clean Air Act.....	530
	Massachusetts v. EPA.....	530
	Notes.....	543
	Utility Air Regulatory Group v. EPA	545
	Notes.....	557
4.	Market Mechanisms to Control Air Pollution	559
	a. Banking, Bubbles, and Offsets	559
	Robert W. Hahn & Gordon L. Hester, Marketable Permits: Lessons for Theory and Practice	560
	Jody Freeman, The Story of Chevron: Environmental Law and Administrative Discretion.....	562
	Note	565
	b. Intra-State Trading Regimes	566
	c. Acid Rain	567
	d. Design of Cap-and-Trade Systems	572

Chapter 7. Water Pollution	577
A. Background.....	577
1. Historical Context	577
B. The Clean Water Act and the Common Law	579
Milwaukee v. Illinois [Milwaukee II]	579
Notes	583
International Paper Company v. Ouellette	584
Notes	587
C. Modern Regulation of Water Pollution	587
1. Federal Statutes Governing Water Pollution	587
2. Overview of the Clean Water Act	588
a. Pollutants Covered by the CWA	589
b. Effluent Limitations and Technology-Based Standards Under the NPDES System	590
c. Water Quality Standards and Nonpoint Source.....	594
d. Federal Authority to Regulate Water Pollution: “Waters of the United States”	596
e. Statutory Overview of the Clean Water Act	598
D. Issues in the Implementation of the CWA	602
1. Point Sources	602
a. Conventional and Non-Conventional (Non-Toxic) Pollutants	602
NRDC v. Costle.....	602
Notes.....	606
Sierra Club v. Abston Construction Company.....	607
Notes.....	611
Concerned Area Residents for the Environment v. Southview Farm.....	611
Notes.....	617
b. Stormwater Pollution and Point Sources.....	619
Notes.....	620
c. Litigation over the Setting of Technology-Based Effluent Limits	621
E. I. du Pont de Nemours & Co. v. Train	622
Notes.....	626
Entergy Corp. v. Riverkeeper, Inc., et al.....	627
Notes.....	634
d. Toxics	634
e. New Source Performance Standards.....	636
Chemical Manufacturers Association v. EPA.....	636
Note	640
f. Publicly Owned Treatment Works	640
g. Water Quality Standards (WQS).....	641
PUD No. 1 of Jefferson County v. Washington Department of Ecology.....	645
Notes.....	649
h. Water Quality Standards and Interstate Pollution	651

Arkansas v. Oklahoma	651
Notes	654
i. Total Maximum Daily Loads	654
i. Point Sources	655
Dioxin/Organochlorine Center v. EPA	655
ii. Nonpoint Sources	663
Pronsolino v. Nastri	664
Oliver A. Houck, The Clean Water Act TMDL Program V: Aftershock and Prelude	671
Notes	676
j. Area Planning for Non-Point Source Pollutants	676
2. Development Restrictions on Private Wetlands	679
United States v. Riverside Bayview Homes, Inc.	682
Notes	685
Solid Waste Agency of Northern Cook County [SWANCC] v. United States Army Corps of Engineers	685
Notes	690
Rapanos v. United States	691
Notes	703
J.B. Ruhl and R. Juge Gregg, Integrating Ecosystem Services into Environmental Law: A Case Study of Wetlands Mitigation Banking	706
Notes	708
Chapter 8. Hazardous Waste	711
A. Regulating the Treatment, Storage, and Disposal of Hazardous Wastes: RCRA	712
1. Background and Overview	712
a. Subtitle C: Hazardous Waste Management	714
i. What Does RCRA Subtitle C Regulate? Solid Waste and Hazardous Waste	714
ii. Who Does RCRA Subtitle C Regulate? Generators, Transporters, and TSD Facilities	715
A. Generators of Hazardous Wastes	715
B. Transporters of Hazardous Waste	716
C. Treatment, Storage, and Disposal Facilities	716
iii. Federal Delegation to States for Implementation	716
iv. Land Disposal Restrictions	717
b. Subtitle D: State or Regional Solid Waste Plans	717
c. Subtitle I: Underground Storage Tanks	718
2. Defining “Solid” and “Hazardous” Wastes	719
a. What Is a “Solid Waste”?	719
American Mining Congress v. Environmental Protection Agency	720
Notes	725
American Petroleum Institute v. EPA	727
Notes	738

b.	What Is a “Hazardous Waste”?	738
	Chemical Waste Management, Inc. v. Environmental Protection Agency	740
	Notes	744
3.	Land Disposal Restrictions	747
	Chemical Waste Management, Inc. v. EPA	749
	Notes	753
4.	Liability and Enforcement	753
	Notes	754
5.	Waste Minimization and Pollution Prevention	756
B.	Clean-up of Contaminated Sites: CERCLA	759
1.	Background and Overview	759
	U.S. Council on Environmental Quality, Environmental Quality 1981: 12th Annual Report	761
2.	Liability	762
a.	Elements of Liability	763
b.	Standard of Liability	764
c.	Potentially Responsible Parties	765
i.	Current Owners/Operators	765
ii.	Past Owners/Operators	768
iii.	Arrangers	770
	United States v. Monsanto Co.	771
	Notes	774
	Burlington Northern & Santa Fe Railway Co. v. United States	774
	Notes	779
iv.	Transporters	781
v.	Other Parties: Parent Corporations, Successors, Lenders, and Governmental Entities	782
	A. Parent Corporations	782
	B. Successor Corporations	783
	C. Lenders and Trustees	786
	D. Governmental Entities	787
d.	Defenses	789
e.	Apportionment and Allocation	793
	Burlington Northern & Santa Fe Railway Co. v. United States	797
	Note	799
f.	Cost Recovery and Contribution	799
	United States v. Atlantic Research Corporation	803
	Notes	808
g.	Settlement	810
3.	Cleaning up Contaminated Sites	813
a.	The National Priorities List	813
b.	The National Contingency Plan	814
c.	Response Actions	814
i.	Short-Term Removal Actions	816

ii. Long-Term Remedial Actions..... 817
 Casey Scott Padgett, Selecting Remedies at Superfund
 Sites: How Should ‘Clean’ Be Determined?..... 817
 Notes 820
 d. Brownfields 823
 e. The Superfund 825

Chapter 9. Regulation of Toxic Substances and Genetically

Modified Organisms 827
 A. Regulating Pesticides..... 827
 1. The Pesticide Problem..... 827
 2. Regulating the Sale and Use of Pesticides..... 828
 Environmental Defense Fund, Inc. v. Environmental Protection
 Agency [Heptachlor and Chlordane] 831
 Notes..... 840
 3. Establishing Tolerances for Pesticide Residues on Food 842
 Northwest Coalition for Alternatives to Pesticides v. EPA 845
 Notes..... 849
 B. Regulating Industrial Chemicals 852
 1. Information Gaps..... 853
 2. Regulatory Gaps 855
 Corrosion Proof Fittings v. Environmental Protection Agency 856
 Notes..... 862
 3. TSCA 2.0: Key Provisions of the Revised Statute 865
 Notes..... 867
 C. Regulating Agricultural Biotechnology and Transgenic Plants..... 868
 1. Regulating the Environmental Effects of Agricultural
 Biotechnology..... 868
 Gregory N. Mandel, Gaps, Inexperience, Inconsistencies, and
 Overlaps: Crisis in the Regulation of Genetically Modified
 Plants and Animals 868
 2. Transgenic Plants..... 874
 National Research Council, Committee on Environmental
 Impacts Associated with Commercialization of Transgenic
 Plants, Environmental Effects of Transgenic Plants: The
 Scope and Adequacy of Regulation..... 875
 Notes..... 879
 D. Mandatory Disclosure of Information Concerning Chemical Hazards
 and Related Liabilities..... 881
 Robert F. Blomquist, The Logic and Limits of Public Information
 Mandates under Federal Hazardous Waste Law: A Policy
 Analysis..... 882
 Notes 885
 Mark Cohen, Information as a Policy Instrument in Protecting the
 Environment: What Have We Learned? 887

Michelle Chan-Fishel, After Enron: How Accounting and SEC Reform Can Promote Corporate Accountability while Restoring Public Confidence	891
INDEX.....	895