A Practical Introduction to Environmental Law
A Practical Introduction to Environmental Law

Joel A. Mintz
Professor of Law
Nova Southeastern University Shepard Broad College of Law

John C. Dernbach
Commonwealth Professor of Environmental Law and Sustainability
Widener University Commonwealth Law School

Steve C. Gold
Professor of Law and Judge Raymond J. Dearie Scholar
Rutgers Law School

Kalyani Robbins
Associate Professor of Law
Florida International University College of Law

Clifford Villa
Assistant Professor of Law
University of New Mexico School of Law

Wendy Wagner
Contributing Author
Joe A. Worsham Centennial Professor in Law
University of Texas School of Law

CAROLINA ACADEMIC PRESS
Durham, North Carolina
For my grandsons, Sam and Karl, and future generations.
J.A.M.

For Becky, Tess, and Ethan, and all who will inherit this world.
J.C.D.

To the memory of Jack and Annette, who made sure that their children received the education that they themselves were denied, and for Jenny, in gratitude for her constant love and support.
S.C.G.

For Skyler, Max, and the planet they will one day share with their children.
K.R.

For Olivia and Julian, as always; para Angelica, el comienzo…
C.V.
# Contents

Table of Principal Cases ................................................................. xvii
Preface ............................................................................................. xix
Acknowledgments ........................................................................... xxix

Chapter 1 · Approaching Environmental Law: Some Theories and Perspectives ......................................................... 3

I. Some Sources Informing Environmental Laws and Policies 4

A. Ethical Perspectives 4
   Aldo Leopold, *A Sand County Almanac* ........................................ 4
   Rachel Carson, *Silent Spring* ....................................................... 9

B. Conflicting Economic Approaches 10
   Mark Sagoff, “We Have Met the Enemy and He Is Us or Conflict and Contradiction in Environmental Law” 11
   Garrett Hardin, “The Tragedy of the Commons” 13
   Frank Ackerman and Lisa Heinzerling, *Priceless: On Knowing the Price of Everything and the Value of Nothing* 15
   Terry L. Anderson and Donald R. Leal, *Free Market Environmentalism* 17

C. Alternative Approaches: Science, Pragmatism, and Sustainability 19
   Dan Tarlock, “Environmental Law: Ethics or Science?” 19
   Joel A. Mintz, “Some Thoughts on the Merits of Pragmatism as a Guide to Environmental Protection” 20
   John C. Dernbach, *Acting as If Tomorrow Matters* 22

II. Seeking Environmental Justice through the Law 26
   Robert R. Kuehn, “A Taxonomy of Environmental Justice” 26

III. Setting Environmental Policy: A Practical Problem 33
   The Plastic Bag Problem ............................................................. 33

Chapter 2 · Environmental Agencies and the Courts: Pertinent Principles of Administrative Law and Remedies 37

I. Introduction .................................................................................... 37

II. Judicial Review of Agency Action ................................................ 38
Scenic Hudson Preservation Conference v. Federal Power Commission 38
Citizens to Preserve Overton Park v. Volpe 47
III. Standing-to-Sue in Environmental Lawsuits 58
   Sierra Club v. Morton 58
   Lujan v. Defenders of Wildlife 62
   Bennett v. Spear 66
   Friends of the Earth v. Laidlaw Environmental Services (TOC) 70
   Massachusetts v. Environmental Protection Agency 76
IV. Attorneys’ Fees in Environmental Litigation 78
   Ruckelshaus v. Sierra Club 78
   City of Burlington v. Dague 81
V. Injunctive Relief in Environmental Law Suits 83
   Weinberger v. Romero-Barcelo 83

Chapter 3 · Taking the Environment into Account:
The National Environmental Policy Act 93
I. Introduction 93
II. The Nature of NEPA 94
   A. Enforceability of NEPA 97
   B. Substance versus Procedure in NEPA Compliance 108
      Vermont Yankee Nuclear Power Corp. v. Natural Resources Defense Council, Inc. 108
      Strycker’s Bay Neighborhood Council, Inc. v. Karlen 114
      Robertson v. Methow Valley Citizens Council 118
      Joel A. Mintz, “Taking Congress’s Words Seriously: Towards a Sound Construction of NEPA’s Long Overlooked Interpretation Mandate” 120
III. Triggering the Requirement to Prepare an Environmental Impact Statement 123
   A. Major Federal Action 125
      Southwest Williamson County Community Ass’n, Inc. v. Slater 126
   B. Significantly Affecting the Quality of the Human Environment 134
      Hanly v. Kleindienst (“Hanly II”) 134
      Regulations of the Council on Environmental Quality 142
      Metropolitan Edison Co. v. People Against Nuclear Energy 146
      Thomas v. Peterson 151
      California v. Norton 158
IV. Adequacy of the Environmental Impact Statement 170
   Utahns for Better Transportation v. U.S. Department of Transportation 173
   Marsh v. Oregon Natural Resources Council 190
## CONTENTS

V. Remedies for NEPA Violations  
*Monsanto Co. v. Geertson Seed Farms*  
198

VI. Evaluating NEPA  
Michael R. Greenberg, *The Environmental Impact Statement after Two Generations*  
206  
Council on Environmental Quality, *Environmental Justice: Guidance Under the National Environmental Policy Act*  
212

### Chapter 4 · Preventing Species and Ecosystem Loss:

#### Biodiversity Law and Policy

I. Introduction to Biodiversity  
Jonathan S. Adams, Bruce A. Stein & Lynn S. Kutner, “Biodiversity: Our Precious Heritage”  
218

II. History of U.S. Wildlife Law  
Kalyani Robbins, “Coordinating the Overlapping Regulation of Biodiversity and Ecosystem Management”  
221

III. The Endangered Species Act  
225

A. The Species Listing Process  
Kalyani Robbins, “Strength in Numbers: Setting Quantitative Criteria for Listing Species under the Endangered Species Act”  
226  
*Northern Spotted Owl v. Hodel*  
231  
*Western Watersheds Project v. U.S. Fish & Wildlife Service*  
234

B. Critical Habitat Designation  
237  
*Natural Resources Defense Council v. U.S. Department of the Interior*  
239  
*Gifford Pinchot Task Force v. U.S. Fish & Wildlife Service*  
244

C. Consultation Requirement  
248  
*Tennessee Valley Authority v. Hill*  
249

D. The Take Prohibition  
258  
*Babbitt v. Sweet Home Chapter of Communities for a Great Oregon*  
259

E. Recovery Planning  
268  
*Strahan v. Linnon*  
269

F. Applying the ESA Abroad  
272  
*Defenders of Wildlife v. Lujan*  
272

IV. International Law  
276  
*Castlewood Products, L.L.C. v. Norton*  
276  
United Nations Conference on Environment and Development Convention on Biological Diversity  
284  
Aichi Biodiversity Targets  
293
V. The Future of Biodiversity  
   James Salzman, “Valuing Ecosystem Services” 302  

Chapter 5 · Protecting the Air We Breathe: The Clean Air Act 305  
I. Introduction 305  
II. Common Law Approaches to Air Pollution Control  
   Boomer v. Atlantic Cement Co. 306  
III. National Ambient Air Quality Standards and State Implementation Plans 311  
   A. What Must a State Implementation Plan Contain? 313  
      Union Electric Co. v. EPA 313  
   B. Setting National Ambient Air Quality Standards 318  
      Whitman v. American Trucking Association, Inc. 318  
      Lead Industries Association, Inc. v. EPA 320  
      Environmental Protection Agency v. EME Homer Generation 325  
IV. Hazardous Air Pollutant Standards 329  
   National Mining Association v. United States Environmental Protection Agency 331  
   Michigan v. Environmental Protection Agency 336  
V. Requirements that Apply to New Air Pollution Sources 344  
   ASARCO, Inc. v. EPA 345  
   Environmental Defense v. Duke Energy Corporation 349  
   Citizens Against the Refinery’s Effects, Inc. v. United States Environmental Protection Agency 354  
VI. The Control of New Sources of Air Pollution in Clean Air Areas 359  
   Alaska Department of Environmental Conservation v. Environmental Protection Agency 360  
VII. Controls on Air Pollution from Motor Vehicles 369  

Chapter 6 · The Race to Mitigate and Adapt: Climate Change Law and Policy 371  
I. Anthropogenic Climate Change 371  
   R.T. Pierrehumbert, “Climate Change: A Catastrophe in Slow Motion” 373  
II. Global Efforts to Address Climate Change 380  
   A. The Science 380  
      Climate Change 2014 Synthesis Report Summary for Policymakers 381  
   B. Precursors to the Paris Agreement: A Little History 391  
      Summary of the United Nations Conference on Sustainable Development 391  
   C. The Paris Agreement 394  
      Fiona Harvey, “Paris Climate Change Agreement: The World’s Greatest Diplomatic Success” 394
CONTENTS

Robert Stavins, “Paris Agreement — A Good Foundation for Meaningful Progress” 399

III. United States Climate Change Law and Policy 404
National Research Council, “Limiting the Magnitude of Future Climate Change” 404
A. Federal Agency Policy Guidance Relating to Climate Change 415
President Obama's Climate Action Plan 415
U.S. Fish & Wildlife Service, “Rising to the Urgent Challenge: Strategic Plan for Responding to Accelerating Climate Change” 418
Natural Resources Defense Council v. Kempthorne 421
Memorandum of May 14, 2008, U.S. Fish and Wildlife Service 425
B. The Clean Air Act and Climate Change 428
Massachusetts v. Environmental Protection Agency 428
Utility Air Regulatory Group v. EPA 439
C. United States Adaptation Policy 449
William E. Easterling III, Brian H. Hurd & Joel B. Smith, “Coping with Global Climate Change: The Role of Adaptation in the United States” 449
Alejandro E. Camacho, “Adapting Governance to Climate Change: Managing Uncertainty through a Learning Infrastructure” 452
U.S. Global Change Research Program (USGCRP), “Preliminary Review of Adaptation Options for Climate-Sensitive Ecosystems and Resources” 457
D. Creative Litigation Strategies to Address Climate Change 462
Alexandra Klass, “Federalism at Work: Recent Developments in Public Trust Lawsuits to Limit Greenhouse Gas Emissions” 462
Juliana v. United States 464

IV. Existing Challenges Aggravated by Climate Change 477
A. Human Rights 477
Michelle Leighton, “Climate Change and Migration: Key Issues for Legal Protection of Migrants and Displaced Persons” 477
B. Biodiversity 486
Kalyani Robbins, “The Biodiversity Paradigm Shift: Adapting the Endangered Species Act to Climate Change” 486
Ahmed Djoghlafa, “Climate Change and Biodiversity in Polar Regions” 491

V. Geoengineering 493
Michael Specter, “The Climate Fixers: Is There a Technological Solution to Global Warming?” 494
Chapter 7 · Protecting Our Nation’s Waters: The Clean Water Act

I. Introduction

II. Private Litigation

Middlesex County Sewerage Authority v. National Sea Clammers Ass’n

III. Evolution of the Clean Water Act

IV. Clean Water Act Jurisdiction

A. Pollutant

Train v. Colorado Public Interest Research Group

B. Addition of Any Pollutant

C. Point Source

United States v. Plaza Health Laboratories, Inc.

D. Navigable Waters

V. Waters of the United States

Solid Waste Agency of Northern Cook County v. U.S. Army Corps of Engineers

Rapanos v. United States

After Rapanos: The Clean Water Rule

VI. Clean Water Act Administration

A. EPA and the Corps of Engineers

Coeur Alaska, Inc. v. Southeast Alaska Conservation Council

B. State Implementation

1. How States and Tribes Obtain Authority

Natural Resources Defense Council, Inc. v. U.S. EPA

2. How State and Tribal Implementation Is Overseen

VII. Protection of Wetlands

A. Introduction

B. Wetlands Determinations

U.S. Army Corps of Engineers v. Hawkes Co. Inc.

C. Dredge- and- Fill Requirements

VIII. Substantive Standards

A. Technology-Based Standards

Weyerhaeuser Co. v. Costle

B. Water Quality-Based Standards

1. How Water-Quality Standards Are Established

Idaho Mining Ass’n v. Browner

2. How Water Quality Standards Are Implemented

Arkansas v. Oklahoma

IX. Other Water-Quality Based Programs

A. 319 Grants

B. 401 Certification

PUD No. 1 Of Jefferson County v. Washington Dept. of Ecology

C. Total Maximum Daily Loads

American Farm Bureau Fed. v. U.S. EPA
Chapter 8 · Dealing with the Detritus of Production and Consumption: The Resource Conservation and Recovery Act 629

I. Introduction 629

II. Legislating by Accretion to Address the Problem of Solid and Hazardous Waste: Origins and History of the Resource Conservation and Recovery Act 630


III. Improving Disposal of Non-Hazardous Solid Waste: RCRA Subtitle D 634


IV. “Cradle to Grave” Regulation of Hazardous Wastes: An Overview of RCRA Subtitle C 640

A. Generators 641
B. Transporters 642
C. Treatment, Storage and Disposal Facilities (TSDFs) 642
D. Corrective Action 643
E. The Role of States 643
F. Enforcement 644
G. Summary 646

V. Triggering RCRA Subtitle C: Defining and Identifying Hazardous Waste 646

A. Is It “Solid Waste”? 647

No Spray Coalition, Inc. v. City of New York 649
Connecticut Coastal Fishermen’s Ass’n v. Remington Arms Co., Inc. 650
Regulations of the Environmental Protection Agency 655
American Mining Congress v. United States Environmental Protection Agency 658
American Petroleum Inst. v. United States Environmental Protection Agency 668

B. Is It Hazardous Waste? 673

1. Listed and Characteristic Hazardous Wastes 673

United States Environmental Protection Agency “RCRA Orientation Manual” 673
United States v. Mobil Oil Corp. 678
United States v. Bethlehem Steel Corp. 683
2. The Mixture and Derived-From Rules 687
American Chemistry Council v. EPA 688
3. Exclusions from RCRA Hazardous Waste Regulation 692

VI. Implementing RCRA Subtitle C 699

A. Generators 699
B. Treatment, Storage, and Disposal Facilities (TSDFs) 701
   1. Definitions and Scope of the Regulations 702
   2. TSDF Permits 704
      Regulations of the Environmental Protection Agency 705
   3. Regulating the Operation of TSDFs 708
   4. Land Disposal Restrictions 709
   5. Corrective Action 711
   6. Closure and Post-Closure Requirements 711
   7. Avoiding TSDF Requirements 713

VII. Enforcing RCRA 714
   United States v. Waste Industries, Inc. 718
   Interfaith Community Organization v. Honeywell Int’l, Inc. 725

Chapter 9 · Addressing a Legacy of Contamination: The Comprehensive Environmental Response, Compensation and Liability Act 735

I. Introduction 735
II. Response Authority
      United States v. W.R. Grace & Co. 748
   B. Response Action Orders
      General Electric Co. v. Jackson 761

III. Liability 765
   A. The Structure of CERCLA Liability 766
      United States v. Monsanto Co. 766
      United States v. Alcan Aluminum Corp. 774
   B. The Common Elements of CERCLA Liability 779
   C. Responsible Parties
      1. Owners and Operators 781
         New York v. Shore Realty Corp. I 781
         New York v. Shore Realty Corp. II 784
      2. Owners and Operators at the Time of Disposal 785
         United States v. Bestfoods 786
      3. Arrangers 797
         Burlington Northern and Santa Fe Railway Co. v. United States 797
         United States v. General Electric Co. 805
      4. Transporters 810
         Tippins Inc. v. USX Corp. 810
   D. Liability for What?
      1. Government Response Costs 815
         United States v. American Cyanamid Co. 815
      2. Response Costs of Others 821
      3. Natural Resource Damages 822
      4. Health Assessment Costs 826
E. Liability of Multiple Responsible Parties 826
   United States v. Chem-Dyne Corp. 826
   Burlington Northern and Santa Fe Railway Co. v. United States 833
F. Contribution and Private Cost Recovery Actions 846
   United States v. Consolidation Coal Co. 848
   Cooper Industries, Inc. v. Aviall Services, Inc. 855
   United States v. Atlantic Research Corp. 859
G. Settlements 866

Chapter 10 · The Regulation of Toxic Products: The Federal
   Insecticide, Fungicide and Rodenticide Act and the
   Toxic Substances Control Act 871
I. The History and Justification for Regulation of Toxic Products 872
   Angela Logomasini and Jennifer Zambone,
   Pesticides and Agriculture 873
II. Regulatory Design Challenges Governing Toxic Products 875
   A. Identifying an End Point for Regulation 875
   B. Implementing a Licensing Program 877
   C. Summary 878
III. The Regulation of Pesticides 878
   A. The Regulation of Existing Pesticides 880
      Environmental Defense Fund, Inc. v. Environmental
      Protection Agency 881
   B. Scientific Challenges in Assessing Pesticide Risks 891
      Goldie Blumenstyk, The Price of Research 891
   C. The Inaccessibility of Some Scientific Research Used for
      Pesticide Regulation 894
   D. The Broader Context of EPA's Pesticide Program:
      FIFRA and Other Statutes 895
IV. The Regulation of Chemicals 899
   A. EPA's Regulation of Existing Chemicals 901
      Environmental Protection Agency, Asbestos: Manufacture,
      Importation, Processing, and Distribution in
      Commerce Prohibitions 901
      Corrosion Proof Fittings v. Environmental Protection Agency 905
   B. TSCA Regulation in Context 916
   C. The European Union's REACH 918
   D. The 2016 Amendments to TSCA 920

Chapter 11 · Enforcement: Ensuring Compliance with
   Environmental Laws 925
I. Introduction 925
II. Information Gathering 927
   Sierra Club v. Union Oil Co. 928
   Marshall v. Barlow's, Inc. 930
III. Administrative Enforcement 934
   M.A. Bruder and Sons, Inc. 953
   United States v. Metropolitan District Commission 956
   Sackett v. Environmental Protection Agency 960
IV. Civil Enforcement 964
   United States v. Sharon Steel Corporation 964
   General Electric Co. v. U.S. Environmental Protection Agency 968
V. Criminal Enforcement 972
   United States v. Sinskey 973
   United States v. Wasserson 978
VI. Citizen Enforcement 984
   Hallstrom v. Tillamook County 985
   Gwaltney of Smithfield v. Chesapeake Bay Foundation 991
VII. Federal Facilities Enforcement 996
   Department of Energy v. Ohio 997
VIII. International Enforcement 1007

Chapter 12 · Implementing Environmental Requirements:
The Fundamentals of Environmental Permitting 1015
I. A Conceptual Overview of Environmental Permitting 1019
   A. What Is a Permit? 1019
   B. Specific Permits 1021
      1. Applicability Determination 1021
      2. Operating Requirements 1022
      3. Permit Application Requirements 1022
      4. Public Notice and Opportunity to Comment 1024
      5. Approval or Denial Criteria 1027
      6. Permit Terms and Conditions 1028
      7. Judicial Review 1030
      8. Enforcement 1030
   C. General Permits 1031
   D. Role of Lawyers in the Permitting Process 1032
II. Specific Permitting Programs 1033
   A. Endangered Species Act Incidental Take Permits 1034
   B. Clean Air Act Prevention of Significant Deterioration (PSD) Program for Attainment or Unclassifiable Areas 1035
   C. Clean Air Act Program for Nonattainment Areas 1039
   D. Clean Water Act NPDES Program 1042
   E. Clean Water Act Dredge-and-Fill Permitting Program 1044
   F. RCRA Permitting Program for Treatment, Storage, and Disposal (TSD) Facilities 1049

Index 1055
## Table of Principal Cases

<table>
<thead>
<tr>
<th>Case</th>
<th>Volume</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alaska Department of Environmental Conservation v. Environmental Protection Agency</td>
<td>360</td>
</tr>
<tr>
<td>Alcan Aluminum Corp., United States v.</td>
<td>774</td>
</tr>
<tr>
<td>American Chemistry Council v. EPA</td>
<td>688</td>
</tr>
<tr>
<td>American Cyanamid Co., United States v.</td>
<td>815</td>
</tr>
<tr>
<td>American Farm Bureau Fed. v. U.S. EPA</td>
<td>620</td>
</tr>
<tr>
<td>American Mining Congress v. United States Environmental Protection Agency</td>
<td>658</td>
</tr>
<tr>
<td>American Petroleum Inst. v. United States Environmental Protection Agency</td>
<td>668</td>
</tr>
<tr>
<td>Arkansas v. Oklahoma</td>
<td>608</td>
</tr>
<tr>
<td>ASARCO, Inc. v. EPA</td>
<td>345</td>
</tr>
<tr>
<td>Atlantic Research Corp., United States v.</td>
<td>859</td>
</tr>
<tr>
<td>Babbitt v. Sweet Home Chapter of Communities for a Great Oregon</td>
<td>259</td>
</tr>
<tr>
<td>Bennett v. Spear</td>
<td>66</td>
</tr>
<tr>
<td>Bestfoods, United States v.</td>
<td>786</td>
</tr>
<tr>
<td>Bethlehem Steel Corp., United States v.</td>
<td>683</td>
</tr>
<tr>
<td>Boomer v. Atlantic Cement Co.</td>
<td>306</td>
</tr>
<tr>
<td>Burlington Northern and Santa Fe Railway Co. v. United States</td>
<td>797, 833</td>
</tr>
<tr>
<td>California v. Norton</td>
<td>158</td>
</tr>
<tr>
<td>Castlewood Products, L.L.C. v. Norton</td>
<td>276</td>
</tr>
<tr>
<td>Chem-Dyne Corp., United States v.</td>
<td>826</td>
</tr>
<tr>
<td>Citizens Against the Refinery's Effects, Inc. v. United States Environmenal Protection Agency</td>
<td>354</td>
</tr>
<tr>
<td>Citizens to Preserve Overton Park v. Volpe</td>
<td>47</td>
</tr>
<tr>
<td>City of Burlington v. Dague</td>
<td>81</td>
</tr>
<tr>
<td>Coeur Alaska, Inc. v. Southeast Alaska Conservation Council</td>
<td>558</td>
</tr>
<tr>
<td>Connecticut Coastal Fishermen's Ass'n v. Remington Arms Co., Inc.</td>
<td>650</td>
</tr>
<tr>
<td>Consolidation Coal Co., United States v.</td>
<td>848</td>
</tr>
<tr>
<td>Cooper Industries, Inc. v. Aviall Services, Inc.</td>
<td>855</td>
</tr>
<tr>
<td>Corrosion Proof Fittings v. Environmental Protection Agency</td>
<td>905</td>
</tr>
<tr>
<td>Defenders of Wildlife v. Lujan</td>
<td>272</td>
</tr>
<tr>
<td>Department of Energy v. Ohio</td>
<td>997</td>
</tr>
<tr>
<td>Environmental Defense Fund, Inc. v. Environmental Protection Agency</td>
<td>881</td>
</tr>
<tr>
<td>Environmental Defense v. Duke Energy Corporation</td>
<td>349</td>
</tr>
<tr>
<td>Environmental Protection Agency v. EME Homer Generation</td>
<td>325</td>
</tr>
<tr>
<td>Friends of the Earth v. Laidlaw Environmental Services (TOC)</td>
<td>70</td>
</tr>
<tr>
<td>General Electric Co. v. Jackson</td>
<td>761</td>
</tr>
<tr>
<td>General Electric Co. v. U.S. Environmental Protection Agency</td>
<td>968</td>
</tr>
<tr>
<td>General Electric Co., United States v.</td>
<td>805</td>
</tr>
<tr>
<td>Gifford Pinchot Task Force v. U.S. Fish &amp; Wildlife Service</td>
<td>244</td>
</tr>
<tr>
<td>Case</td>
<td>Page</td>
</tr>
<tr>
<td>----------------------------------------------------------------------</td>
<td>------</td>
</tr>
<tr>
<td>Gwaltney of Smithfield v. Chesapeake Bay Foundation</td>
<td>991</td>
</tr>
<tr>
<td>Hallstrom v. Tillamook County</td>
<td>985</td>
</tr>
<tr>
<td>Hanly v. Kleindienst (&quot;Hanly II&quot;)</td>
<td>134</td>
</tr>
<tr>
<td>Idaho Mining Ass'n v. Browner</td>
<td>599</td>
</tr>
<tr>
<td>Interfaith Community Organization v. Honeywell Int'l, Inc.</td>
<td>725</td>
</tr>
<tr>
<td>Juliana v. United States</td>
<td>464</td>
</tr>
<tr>
<td>Lead Industries Association, Inc. v. EPA</td>
<td>320</td>
</tr>
<tr>
<td>Lujan v. Defenders of Wildlife</td>
<td>62</td>
</tr>
<tr>
<td>M.A. Bruder and Sons, Inc.</td>
<td>953</td>
</tr>
<tr>
<td>Marsh v. Oregon Natural Resources Council</td>
<td>190</td>
</tr>
<tr>
<td>Marshall v. Barlow's, Inc.</td>
<td>930</td>
</tr>
<tr>
<td>Massachusetts v. Environmental Protection Agency</td>
<td>76,8,</td>
</tr>
<tr>
<td>Metropolitan District Commission, United States v.</td>
<td>956</td>
</tr>
<tr>
<td>Metropolitan Edison Co. v. People Against Nuclear Energy</td>
<td>146</td>
</tr>
<tr>
<td>Michigan v. Environmental Protection Agency</td>
<td>336</td>
</tr>
<tr>
<td>Middlesex County Sewerage Authority v. National Sea Clammers Ass'n</td>
<td>508</td>
</tr>
<tr>
<td>Mobil Oil Corp., United States v.</td>
<td>678</td>
</tr>
<tr>
<td>Monsanto Co. v. Geertson Seed Farms</td>
<td>198</td>
</tr>
<tr>
<td>Monsanto Co., United States v.</td>
<td>766</td>
</tr>
<tr>
<td>National Mining Association v. United States Environmental Protection Agency</td>
<td>331</td>
</tr>
<tr>
<td>Natural Resources Defense Council v. Kemphorne</td>
<td>421</td>
</tr>
<tr>
<td>Natural Resources Defense Council v. U.S. Department of the Interior</td>
<td>239</td>
</tr>
<tr>
<td>Natural Resources Defense Council, Inc. v. U.S. EPA</td>
<td>568</td>
</tr>
<tr>
<td>New York v. Shore Realty Corp.</td>
<td>781,784</td>
</tr>
<tr>
<td>No Spray Coalition, Inc. v. City of New York</td>
<td>649</td>
</tr>
<tr>
<td>Northern Spotted Owl v. Hodel</td>
<td>231</td>
</tr>
<tr>
<td>Plaza Health Laboratories, Inc., United States v.</td>
<td>525</td>
</tr>
<tr>
<td>PUD No. 1 Of Jefferson County v. Washington Dept. of Ecology</td>
<td>614</td>
</tr>
<tr>
<td>Rapanos v. United States</td>
<td>543</td>
</tr>
<tr>
<td>Robertson v. Methow Valley Citizens Council</td>
<td>118</td>
</tr>
<tr>
<td>Ruckelshaus v. Sierra Club</td>
<td>78</td>
</tr>
<tr>
<td>Sackett v. Environmental Protection Agency</td>
<td>960</td>
</tr>
<tr>
<td>Scenic Hudson Preservation Conference v. Federal Power Commission</td>
<td>38</td>
</tr>
<tr>
<td>Sharon Steel Corporation, United States v.</td>
<td>964</td>
</tr>
<tr>
<td>Sierra Club v. Morton</td>
<td>58</td>
</tr>
<tr>
<td>Sierra Club v. Union Oil Co., Inc.</td>
<td>928</td>
</tr>
<tr>
<td>Sinskey, United States v.</td>
<td>973</td>
</tr>
<tr>
<td>Solid Waste Agency of Northern Cook County v. U.S. Army Corps of</td>
<td>536</td>
</tr>
<tr>
<td>Engineers</td>
<td></td>
</tr>
<tr>
<td>Southwest Williamson County Community Ass’n, Inc. v. Slater</td>
<td>126</td>
</tr>
<tr>
<td>Strahan v. Linnon</td>
<td>269</td>
</tr>
<tr>
<td>Strycker’s Bay Neighborhood Council</td>
<td></td>
</tr>
<tr>
<td>Thomas v. Peterson</td>
<td>151</td>
</tr>
<tr>
<td>Tippins Inc. v. USX Corp., Inc.</td>
<td>810</td>
</tr>
<tr>
<td>Train v. Colorado Public Interest Research Group</td>
<td>517</td>
</tr>
<tr>
<td>U.S. Army Corps of Engineers v. Hawkes Co., Inc.</td>
<td>575</td>
</tr>
<tr>
<td>Union Electric Co. v. EPA</td>
<td>313</td>
</tr>
<tr>
<td>United States v., See Name of Defendant Utahns for Better Transportation v. U.S. Department of Transportation</td>
<td>173</td>
</tr>
<tr>
<td>Utility Air Regulatory Group v. EPA</td>
<td>439</td>
</tr>
<tr>
<td>Vermont Yankee Nuclear Power Corp. v. Natural Resources Defense Council, Inc.</td>
<td>108</td>
</tr>
<tr>
<td>W.R. Grace &amp; Co. United States v.</td>
<td>748</td>
</tr>
<tr>
<td>Wasserson, United States v.</td>
<td>978</td>
</tr>
<tr>
<td>Waste Industries, Inc., United States v.</td>
<td>718</td>
</tr>
<tr>
<td>Weinberger v. Romero-Barcelo</td>
<td>83</td>
</tr>
<tr>
<td>Western Watersheds Project v. U.S. Fish &amp; Wildlife Service</td>
<td>234</td>
</tr>
<tr>
<td>Weyerhaeuser Co. v. Costle</td>
<td>587</td>
</tr>
<tr>
<td>Whitman v. American Trucking Association, Inc.</td>
<td>318</td>
</tr>
</tbody>
</table>
Preface

For many people Environmental Law is a difficult subject to learn—and to teach—yet fascinating, engaging, and satisfying to practice. This book is intended to make the subject accessible for the beginning student, and less burdensome for the instructor, while providing a fair sampling of the practical challenges faced by environmental attorneys. Its five co-authors and contributing author have all had significant experience in environmental practice as well as in teaching the subject. We have included practice problems throughout the book that reflect our own practice and classroom teaching experiences and those of others. That emphasis is obviously reflected in the title of the book. It is, indeed, a “practical” introduction.

In some respects, this book includes basic topics covered by other casebooks in the field. After providing an introduction grounded in a varied set of the philosophies and perspectives that undergird the field, the book considers some administrative law doctrines particularly relevant to Environmental Law. It then surveys a number of the statutes, regulations, and judicial opinions widely seen as the “canon” of the field. Thus, it focuses in turn on such fundamental legislative enactments as the National Environmental Policy Act, the Endangered Species Act, the Clean Air Act, the Clean Water Act, the Resource Conservation and Recovery Act, CERCLA (or Superfund), the Federal Insecticide, Fungicide and Rodenticide Act, and the Toxic Substances Control Act, and a selection of the key judicial opinions and regulations those major statutes have spawned.

At the same time, however, this book differs from other casebooks in important respects. Beyond its practice problem orientation, we have included substantive coverage of environmental permitting—a facet of practice often engaged in by environmental lawyers. We have also included considerable material on the immense global challenges of climate change resulting from human emissions of greenhouse gasses, for which there is a striking and regrettable paucity of federal law. We focus therefore on various scientific and policy aspects of the issue, which we believe is in urgent need of both mitigation and adaptation. This book also pays more attention than most other textbooks to enforcement, a crucial aspect of environmental regulation; and it treats the most crucial components of the important amendments to the Toxic Substances Control Act passed by Congress in 2016.
An explanation of the editing conventions we have employed seems in order. Nearly all of the judicial opinions, passages from books and articles, and other materials included in this work have been edited for the sake of brevity and clarity. Although some dissenting and concurring judicial opinions have been included in part or whole, others have been entirely omitted. We have also edited out selected language and citations from published decisions and other materials. Where materials in original texts were not included we have indicated this by adding ellipses immediately before the excised materials. We also sometimes added words, phrases or brief summaries of extended passages that otherwise were omitted. These editor—added materials are surrounded in the text by brackets.

As this book goes to press, Environmental Law has entered a period of tumult and potential change. The precise nature and full extent of that change cannot now be predicted. We plan to carefully follow any and all significant changes in the field and to supplement this book as frequently as necessary to reflect them.

The co-authors have enjoyed working together to produce this book and we have learned much from one another in the process. We believe that competent environmental lawyers are now needed more than ever. We earnestly hope that this book will provide a valuable tool for effective instruction, and a useful foundation for the training of ethical, knowledgeable, and effective environmental lawyers. Much will be at stake in their professional efforts.

Joel A. Mintz
John C. Dernbach
Steve C. Gold
Kalyani Robbins
Clifford Villa
Wendy Wagner (contributing author)
Acknowledgments

The authors wish to thank the following individuals and institutions for their help in the preparation of this book.

Nova Southeastern University law librarian Becka Rich provided persistent, invaluable help in securing the consent of copyright holders to republish excerpts of their writings. Librarian Judith Simms of Rutgers Law School also went beyond the call of duty to assist with permissions and research.

Seattle University School of Law graduate Tyler Stewart provided stellar research support for the chapter on the Clean Water Act. University of New Mexico School of Law graduate Benjamin Guevara provided thorough editing and proofreading for the same. Rutgers Law School student Kylie Huff assisted immeasurably with the design, planning, and case selection for several chapters. Rutgers Law School students Jaimee Glinn, Christina Stripp, and Christopher Taillefer provided vital research assistance, cite checking and proofreading. Sylviane Gold brought her formidable editorial skills to bear at several critical junctures. Jennifer Aley carefully read and re-read portions of the manuscript, making improvements with each reading. Karen Rose, faculty assistant at Nova Southeastern University provided prompt and skillful typing and proofreading assistance.

Though he passed away before this book was written, Professor Emeritus Frank Grad of Columbia Law School selected some of the cases that form parts of chapter two of this book. His life’s work was a guide and inspiration to generations of public interest environmental lawyers and we honor his memory.

The drafting of some practice problems was materially assisted by some members of the American Bar Association Section on Environment, Energy and Natural Resources—active environmental law practitioners who graciously responded to an online request for their own practice-based problems. In particular, we thank the following environmental lawyers for their thoughtful contributions: Scott Badenoch (who contributed the Drinking Water problem described in note 2 on pages 513 and 514), Ghislaine Bruner (Steptoe and Johnson), Pamela Elkow (Carmody, Torrance, Sandak, and Hennessey) and Sorrell Negro (Robinson and Cole).

We also acknowledge, with gratitude, the following permissions to republish segments from the works of other authors:


William Easterling, III, Brian H. Hurd and Joel B. Smith, “Coping with Global Climate Change: The Role Of Adaptation in the United States,” 2004, reprinted with permission by courtesy of Center for Climate and Energy Solutions (formerly the Pew Center on Global Climate Change).


UNFCCC, United Nations, “Framework Convention on Climate Change,” reprinted with permission.


Rachel Carson, Silent Spring (Houghton Mifflin, 1962 and subsequently), reprinted with permission.

Terry L. Anderson and Donald R. Leal, Free Market Environmentalism (Palgrave, 2001), reprinted with permission.

Frank Ackerman and Lisa Heinzerling, Priceless (The New Press, 2004), reprinted with permission.


