

# Contents

*List of Tables*, xv

*Preface*, xvii

## **1 Background and History, 1**

Problems in Defining and Measuring Waste, 4

Types and Sources of Waste, 5

Household Waste, 5

Commercial Waste, 5

E-Waste, 6

Hazardous Waste, 6

Industrial Waste, 7

Building Waste, 7

Medical Waste, 7

Agricultural Waste, 8

Universal Waste, 9

Waste Management Options, 10

Collection, 10

Composting, 10

Incineration, 11

Integrated Waste Management, 12

Landfills, 12

Mechanical Biological Treatment, 13

Phytoremediation, 13

Recycling, 14

Source Reduction, 15

Waste Transfer Stations, 16

History of Waste Management, 16

Federal Legislation and Regulation, 22

## **x Contents**

Environmental Justice and Waste Management, 31  
References, 34

### **2 Problems, Controversies, and Solutions, 37**

Paper or Plastic? 37  
So Which Bag Do You Choose? 40  
Reducing the Amount of Waste, 41  
Enhancing and Improving Recycling, 43  
Dealing with Beverage Cans and Bottles, 47  
More Trash, Shrinking Landfills, 52  
Paying for the "Real" Cost of Waste, 54  
Specialized Waste Management Challenges, 55  
Super Problems, Superfund, 56  
Radioactive Waste and Yucca Mountain, 60  
Debris from Disasters, 64  
Siting Waste Management Facilities, 68  
Is Help on the Way? 72  
Technological Advances, 74  
References, 77

### **3 Worldwide Perspective, 83**

Global Waste Management Efforts, 85  
    Africa, 85  
    Asia, 87  
    European Union, 91  
    Latin America, 96  
    Middle East, 98  
    Oceania and Micronesia, 100  
International Waste Management Regimes, 102  
    Hazardous Waste Trading, 102  
    Basel Convention, 103  
Regional Agreements on Hazardous Waste, 106  
Radioactive Waste, 107  
Continuing Waste Management Issues, 108  
    Electronic Waste, 108  
    Shipbreaking, 110  
    Uncontrolled Landfills and Scavenging, 111  
References, 112

### **4 Chronology, 117**

### **5 Biographical Sketches, 143**

Robert Bullard, 143  
 Dean Buntrock, 144  
 Joseph R. Cerrell, 145  
 Rev. Benjamin Chavis Jr., 146  
 Yvon Chouinard, 147  
 Barry Commoner, 148  
 Paul Connett, 149  
 Lois Gibbs, 150  
 Pete Grogan, 151  
 Kenny Guinn, 152  
 Alice Hamilton, 153  
 H. Wayne Huizenga, 154  
 Mary McDowell, 155  
 Martin Melosi, 156  
 Penny Newman, 157  
 Paul Palmer, 158  
 William Rathje, 159  
 Florence Robinson, 160  
 Elizabeth Royte, 161  
 William Sanjour, 161  
 Wilma Subra, 163  
 Terri Swearingen, 163  
 Mike Synar, 164  
 Will Toor, 165  
 Jean Lacey Vincenz, 166  
 George E. Waring Jr., 167  
 Craig E. Williams, 168

## **6 Data and Documents, 171**

Early Efforts to Manage Waste, 171  
     Excerpts from a Special Message to the Congress  
     on Conservation, "To Renew a Nation," President  
     Lyndon B. Johnson (March 8, 1968), 172  
 Waste Management Legislation, 175  
     The Resource Conservation and Recovery Act  
     of 1976 (excerpts), 175  
 Municipal Solid Waste Recycling, 176  
 Creating a Market for Recycled Products, 178  
     EPA Comprehensive Procurement Guidelines  
     Products, 179  
 Global Municipal and Hazardous Waste Generation,  
     Collection, and Treatment, 180

- The Basel Convention, 180
- Preamble to the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal (March 1989), 182
- Hazardous Waste Dumping, 185
  - Speech by Achim Steiner to the Opening of the Eighth Conference of the Parties to the Basel Convention, Nairobi, Kenya (November 27, 2006), 186
- National Priorities List of Waste Site Actions, 187
- “Seven New (Garbage) Wonders of the World,” 187
- World’s Most Polluted Places, 2006, 190
  - How Much Paper Is Recycled? What Happens to Old Newspapers? 195
- What Do You Do with Waste Carpet? 195
- Recycling Fun Facts, 196
- U.S. Beverage Container Recycling Scorecard, 198
- The Nuclear Waste Debate, 199
  - Yucca Mountain, 200
    - Excerpts from a Letter from the President to the Speaker of the House of Representatives and the President of the Senate, February 15, 2002, 201
    - Excerpts from the Statement of Kenny G. Guinn, Governor of the State of Nevada, before the U.S. House of Representatives, Committee on Transportation and Infrastructure Subcommittees on Railroads and Transportation and Hazardous Materials, April 25, 2002, 202
    - Nye County Resolution No. 2004-25, 204
    - Nuclear Age Peace Foundation’s Top Ten Reasons to Oppose the DoE’s Yucca Mountain Plan, David Krieger and Marissa Zubia, August 23, 2002, 205
- 7 Directory of Organizations, Associations, and Agencies, 209**
  - U.S. Government Agencies, 209
  - State Agencies, 215
  - Industry and Trade Associations and Nongovernmental Organizations, 225
- 8 Resources, 253**
  - Print Resources, 253

Books and Monographs, 253  
Articles, 277  
Journals, 286  
Nonprint Resources, 288  
CD-ROMS/DVD-ROMS/DVDs/Videos, 288

*Glossary*, 293  
*Index*, 299  
*About the Author*, 311

# List of Tables

- 6.1 Scope of Materials Included in the Standard MSW Recycling Rate, 177
- 6.2 Municipal Waste Collection, by Selected Country, 181
- 6.3 Municipal Waste Treatment, by Selected Country, 182
- 6.4 Hazardous Waste Generation, by Selected Country, 183
- 6.5 National Priorities List Site Actions, by Year, 188
- 6.6 Supply and Recovery of Paper and Paperboard, 1993–2006, 195
- 6.7 Use Statistics for Old Newspapers, 2006, 196
- 6.8 Postconsumer Carpet Recycling and Diversion, 2002–2006, 196
- 6.9 U.S. Beverage Container Recycling Scorecard and Report, 2006, 199
- 6.10 Locations of U.S. Independent Spent Fuel Storage Installations, 200