

Global Climate Change and the Road to Extinction

Global Climate Change and the Road to Extinction

The Legal and Planning Response

James A. Kushner

CAROLINA ACADEMIC PRESS
Durham, North Carolina

Copyright © 2008
James A. Kushner
All Rights Reserved

Library of Congress Cataloging-in-Publication Data

Kushner, James A.

Global climate change and the road to extinction / James A. Kushner.

p. cm.

Includes bibliographical references and index.

ISBN 978-1-59460-492-8 (alk. paper)

1. Climatic changes. 2. Global warming. I. Title.

QC981.8.C5K875 2008

363.738'74—dc22

2008035205

CAROLINA ACADEMIC PRESS
700 Kent Street
Durham, North Carolina 27701
Telephone (919) 489-7486
Fax (919) 493-5668
www.cap-press.com

Printed in the United States of America

[E]ven if every SUV were downsized to a Schwinn, every truck and bus repowered to burn biodiesel, and every refrigerator retrofitted to run with solar panels, we are playing Russian roulette with the very thing that makes our life on earth possible—a steady, temperate climate.

Jeff Goodell, *Big Coal: The Dirty Secret Behind America's Energy Future* 207–08 (2006)

This book is dedicated to Al Gore, the world's spokesman and leader in addressing global climate change.

Contents

List of Figures	xiii
Preface	xv
Acknowledgments	xvii
Chapter 1 · Introduction	3
Chapter 2 · The Science and Consequences	7
Chapter 3 · Agriculture and Food Policy	19
1. Local Response	27
2. Regional Response	29
3. State Response	30
4. Federal Response	31
5. International Response	31
Chapter 4 · Brownfield Development	35
1. Local Response	37
2. Regional Response	37
3. State Response	38
4. Federal Response	38
5. International Response	39
Chapter 5 · Consumption and Conservation	41
1. Local Response	53
2. Regional Response	55
3. State Response	55
4. Federal Response	56
5. International Response	56
Chapter 6 · Economic Development	59
1. Local Response	62
2. Regional Response	63
3. State Response	64

4. Federal Response	64
5. International Response	66
Chapter 7 · Education	69
1. Local Response	71
2. Regional Response	72
3. State Response	72
4. Federal Response	72
5. International Response	73
Chapter 8 · Emergency Preparedness	75
1. Local Response	83
2. Regional Response	84
3. State Response	84
4. Federal Response	85
5. International Response	87
Chapter 9 · Energy	89
1. Local Response	102
2. Regional Response	103
3. State Response	103
4. Federal Response	111
5. International Response	112
Chapter 10 · Housing and Construction	115
1. Local Response	120
2. Regional Response	124
3. State Response	124
4. Federal Response	125
5. International Response	126
Chapter 11 · Management of Federal Lands and Agencies	127
1. Local Response	128
2. Regional Response	128
3. State Response	129
4. Federal Response	129
5. International Response	129
Chapter 12 · Oceans and Seas	131
1. Local Response	133
2. Regional Response	133
3. State Response	134

4. Federal Response	134
5. International Response	134
Chapter 13 · Population	135
1. Local Response	138
2. Regional Response	138
3. State Response	138
4. Federal Response	138
5. International	139
Chapter 14 · Smart Growth	141
1. Local Response	147
2. Regional Response	148
3. State Response	149
4. Federal Response	152
5. International Response	152
Chapter 15 · Species Protection	153
1. Local Response	155
2. Regional Response	155
3. State Response	156
4. Federal Response	156
5. International Response	156
Chapter 16 · Technology	157
1. Local Response	157
2. Regional Response	158
3. State Response	159
4. Federal Response	159
5. International Response	159
Chapter 17 · Transportation	161
1. Local Response	182
2. Regional Response	186
3. State Response	186
4. Federal Response	189
5. International Response	191
Chapter 18 · Water Management	195
1. Local Response	198
2. Regional Response	199
3. State Response	199

4. Federal Response	200
5. International Response	201
Chapter 19 · Conclusion	203
Chapter 20 · Afterword	207
Table of Authorities	211
Table of Statutes, Constitutional Provisions, Regulations, and Executive Orders	243
Table of Cases	251
Index	253

List of Figures

Polar bears. Source: istockphoto.com/Thomas Pickard.	front cover
Flooding from Hurricane Katrina, New Orleans, Sept. 4, 2005. Source: FEMA/Liz Roll.	5
U.S. Carbon Dioxide Emissions 2005 to 2030. Source: Department of Energy.	10
Tornado, Union City, Oklahoma. Source: National Oceanic & Atmospheric Administration.	13
Cattle Feed Yard. Source: USDA.	21
Poultry Production. Source: USDA/Larry Rana.	26
Millennium Housing, dockyards to wetlands and housing, London. Source: James A. Kushner.	36
Energy Star compact fluorescent light bulb (CFL). Source: EPA/DOE.	54
Bluewater Mall in Kent, UK. Source: James A. Kushner.	57
Tram in Budapest, Hungary. Source: James A. Kushner.	62
Student. Source: U.S. Census Bureau, Public Information Office.	71
Superdome line, New Orleans, Aug. 28, 2005. Source: FEMA/Marty Bahamonde.	77
Evacuation from Galveston for Hurricane Rita, Sept. 21, 2005. Source: FEMA/Ed Edahl.	79
Thames Barrier, London. Source: James A. Kushner.	82
Geysers Geothermal Power Plant, California. Source: DOE.	92
Heliostats at the Solar Two Power Plant, Daggett, California. Source: DOE.	98
Flowind, Altamont Pass, California. Source: DOE.	99
Bio-01 sustainable community (West Harbor), Malmö, Sweden. Source: James A. Kushner.	117
Autofreie Siedlung carfree housing, Munster, Germany. Source: James A. Kushner.	119
WGL-Terrein car-free housing, Amsterdam, NL. Source: James A. Kushner.	121

Zero Energy Houses, The Vauban, Freiburg, Germany. Source: James A. Kushner.	123
Wind Generators on Federal Lands in Palm Springs, California. Source: U.S. Bureau of Land Management.	128
Huge surf with offshore wind North Shore, Oahu, Hawaii. Source: National Oceanic & Atmospheric Administration.	133
World population projection. Source: U.S. Census Bureau.	136
French Quarter, New Urbanist village, Tübingen, Germany. Source: James A. Kushner.	146
Polar bear. Source: NOAA Climate Program Office NABOS 2006 Expedition/Mike Dunn	154
University of Minnesota Solar car, passes through Lake Benton, Minnesota. Source: U.S. Department of Energy.	158
Traffic, Los Angeles. Source: Richard Riesemberg, www.rickrise.com .	162
Hydrogen-fueled bus, Estoril, Portugal. Source: Carfree.com .	163
Tram in Bratislava, Slovakia. Source: James A. Kushner	166
Double articulated bus on dedicated busway at Utrecht University in The Netherlands. Source: James A. Kushner.	170
Bicycles, Amsterdam, NL. Source: James A. Kushner.	171
Smart Car, Wurtzburg, Germany. Source: James A. Kushner.	173
Bike Rental, Vienna, Austria. Source: James A. Kushner.	175
Richshaw bicycle, Copenhagen, Denmark. Source: James A. Kushner.	177
Articulated bus, Nuremberg, Germany. Source: James A. Kushner.	181
Tram, Freiburg, Germany. Source: James A. Kushner.	184
New Orleans, Sept. 6, 2005. Source: FEMA/Jocelyn Augustino.	204
Marble Road, Ephesus, Turkey. Source: James A. Kushner.	205
New Orleans, Sept. 6, 2005. Source: FEMA/Jocelyn Augustino.	back cover

Preface

In the spring of 2007, while living and teaching again in the Netherlands, I went to see “An Inconvenient Truth,” Nobel Peace Prize recipient Al Gore’s Academy Award winning film on global warming and climate change. While watching the film, I had an epiphany: global warming is a threat to life as we know it, eclipsing all other global, national, and local concerns and that urban planning and urban redesign can significantly mitigate the effects of climate change. I had been aware of global warming for some years, particularly as to the danger to low-lying lands from rising seas. But as I began to read everything I could find on warming and greenhouse gases, starting with Al Gore’s book *An Inconvenient Truth*, I realized that Earth is on a destructive path and with it, mankind is heading for early extinction. In this book, I do critique Al Gore’s support for the Kyoto Protocol and his modest prescriptive and normative response to climate change. In fairness, we are moving quickly toward a crisis and our knowledge of the effects of warming is expanding rapidly. I am sure that Al Gore also recognizes that more recent information calls for even more aggressive policies to mitigate the effects of our ever-increasing emissions of greenhouse gases. I applaud his leadership and am proud to acknowledge that I have joined his army of fighters for sustainability and survival.

I am not a scientist, but even the most moderate experts are predicting a scenario that has already adversely affected species, changed disease patterns, and increased flooding and, in the coming decade, will cause water and food shortages, hundreds of millions of deaths, and climate refugees to be followed by climate conditions and economic chaos that will threaten the quality of life and the very life of our children and grandchildren. I do not believe that political leaders in the United States and abroad want to face the threat of climate change because they fear that such honesty would shake economies and political futures. Instead, the response is a mild commitment to increase miles per gallon automobile efficiency and efforts to stimulate alternatives to fossil fuel-based economies. Many people assume that scenarios of devastation are science fiction and thus respond by ignoring scientific forecasts. The premise

of this volume is that the risk forecasted is so grave that it is only prudent to look to the future and make the changes in urban design and consumption necessary to avert extinction and move to a more sustainable existence. Few dispute the existence of peak oil and the coming crisis of insufficient supply and escalating costs of oil, natural gas, coal, and nuclear energy and that we should plan to convert to renewable energy. No one should dispute that our current policies are subsidizing pollution and carbon emissions. No one should dispute that we could generate an economy based on conservation, creating a new generation of jobs and opportunities. The point of this book is not only to avert extinction should dire predictions be correct, but to take the crisis of global climate change and treat it as an opportunity to launch the sustainable lifestyle and economy as a gift to our progeny. It would be ironic and tragic if this generation, a generation which has been more protective of its children than any generation before it, would also ignore the greatest threat to them.

Acknowledgments

I would like to thank Bryant Garth, the dean of Southwestern Law School for his support and encouragement. I would also like to thank the wonderful family of Carolina Academic Press: Keith Sipe, Linda Lacy, Bob Conrow, Tim Colton and Jennifer Gilchrist for their continued support of my work and for publishing my fifth book with them. The CAP family is consistently enthusiastic about my interdisciplinary work and is the most nurturing and innovative law and textbook publisher. I also appreciate the careful reading and comments on the manuscript by Austen Parrish and Nick Tackes.