
Contents

Foreword	1
Chapter 1: Introduction	3
Chapter 2: The History and Evolution of §303	11
Water Quality Standards Regulation and TMDLs	11
The Rise of Water Quality Standards in Federal Law	12
The 1972 Amendments: The States and the Regulated Community Make Their Case.	14
Congress Disposes: §303(d)	20
The Backlash: Congress Stays the Course	24
<i>The Commission Reports</i>	24
<i>The New Federalism, 1982</i>	26
<i>The Water Quality Act of 1987</i>	28
<i>The Argument Continues</i>	31
<i>Reflections on Water Quality Standards Legislation and Its Stakeholders</i>	33
Chapter 3: The Implementation of §303	49
Section 303(d): The Avoidance Years	49
The Constructive Submission Theory: Avoidance Might Not Work	51
Slow Motion	53
The Roof Falls In	55
EPA Takes the Lead	56
<i>Eligible Waters</i>	58
<i>Scientific Uncertainty</i>	58
<i>Implementation</i>	59
<i>Nonpoint Sources</i>	60
But Will Anybody Follow?	63

Chapter 4: A New Framework	75
Pieces of the Frame	75
<i>The Litigation</i>	75
<i>Further EPA Guidance</i>	77
Listings	77
TMDLs	79
<i>The FACA Committee</i>	82
<i>The Federal Family</i>	84
The Clean Water Action Plan	85
From Nonpoint to Point Source Regulation	87
Grazing and Timber on Public Lands	94
Coastal Nonpoint Programs	99
<i>Early State Responses</i>	104
Listings	105
TMDLs	106
What We Have Framed	108
Chapter 5: Toward the Final Frontier	131
Reviewing the Bidding	131
TMDLs and the Limits of Science	136
TMDLs and the Limits of Will	142
Chapter 6: The TMDL Program to Come: Aftershock and Prelude	165
The Showdown	166
The Aftermath	170
<i>Sobering News</i>	170
State Capacity	170
Supporting Science	173
Costs of the TMDL Program	176
State Enforcement	179
<i>EPA and the Regulatory Program</i>	181
The July 2000 Rule	181
The Listening Sessions	182
Monitoring and Assessment Guidance	182
The CWA §319 Program	183
Trades and Markets	184
Water Quality Standards	186
Focus Groups	187
The State of the Game	188
<i>Recent TMDL Litigation</i>	190
Prelude	193
<i>Forward Into the Past</i>	194
The Past as Prologue	194

The New TMDL Program	197
Nonpoint Sources	198
Listings	199
Source Loadings	200
Implementation Plans	201
Time Frames and Deadlines	203
Stakeholder Involvement	204
Summing Up	205
<i>Forward Into the Future</i>	206
Enhanced Ambient Management	206
Technology and Practice Standards	208
Limiting the Pollutant	210
Reflections on the Emerging Program	212
Chapter 7: Concluding Thoughts	257
Appendices	
Appendix A: §§303(d)-(e) and 319 of the CWA	271
Appendix B: TMDL Litigation by State	283
Appendix C: Summary of Illustrative TMDL Determinations	285
Appendix D: EPA TMDL Regulations	291
Revisions to the Water Quality Planning and Management Regulation and	
Revisions to the National Pollutant Discharge Elimination System Program and Federal	
Antidegradation Policy in Support of Revisions to the Water Quality Planning and Management	
Regulation	293