

## DETAILED CONTENTS

<i>Editor and author biographies</i>	xv
<i>List of abbreviations</i>	xxiii
<i>Tables of cases</i>	xxv
<i>Table of legislation</i>	xxvii

<b>Introduction</b>	1
<i>Barbara J Goldsmith and Lucas Bergkamp</i>	
A. Summary	00.03
B. Part I—Scope, substance, and procedure of the EU Environmental liability Directive	00.07
C. Part II—Emerging issues and practices in ELD application	00.16
D. Part III—The ELD's future: tools, approaches, and further development	00.21

### I SCOPE, SUBSTANCE, AND PROCEDURE OF THE EU ENVIRONMENTAL LIABILITY DIRECTIVE

<b>1. The ELD's background</b>	9
<i>Geert van Calster and Leonie Reins</i>	
A. Introduction	1.01
B. Legislative history of the Directive	1.03
C. Justification and empirical evidence for an EU regime	1.08
D. Risks of soil pollution and biodiversity damage	1.30
E. Subsidiarity and proportionality	1.41
F. The polluter pays principle and liability's preventive effect	1.52
G. Conclusion	1.61
 <b>2. Fundamentals of liability for environmental harm under the ELD</b>	 31
<i>Edward Brans</i>	
A. Introduction	2.01
B. Scope of the regime	2.04
C. Nature of the ELD regime: administrative or civil law regime?	2.25

D. Remediation of damage to protected habitats and species, water damage, and land damage	2.29
E. Basic liability rules of the ELD	2.38
F. Prevention regime	2.52
G. Practical effects and challenges	2.56
H. Outlook	2.63
<b>3. Scope of the ELD regime</b>	<b>51</b>
<i>Lucas Bergkamp and Anke van Bergeijk</i>	
A. The ELD's broad structure	3.01
B. Operator	3.04
C. Occupational activity	3.10
D. Damage definition	3.12
E. Covered activities	3.37
F. Geographic scope and covered natural resources	3.44
G. Privately owned natural resources	3.50
H. Causation	3.55
I. Time limitations	3.57
J. Relationship with international law	3.60
K. Relation with other EU legislation and cross-border cases	3.62
L. Relation with national law	3.72
M. Managing the critical threshold issue of the ELD's applicability	3.74
<b>4. Exceptions and defences</b>	<b>80</b>
<i>Lucas Bergkamp and Anke van Bergeijk</i>	
A. Introduction	4.01
B. Exceptions	4.03
C. Defences	4.23
D. Conclusions	4.48
<b>5. The remediation regimes</b>	<b>95</b>
<i>Gary N Bigham, Nicholas W Gard, Carlo Monti, and Cristiano Pozzi</i>	
A. Introduction	5.01
B. Remediation, costs, and interim losses	5.03
C. Identification of remediation options	5.22

D. Key technical issues	5.48
E. Conclusion	5.52
 <b>6. Financial security and insurance</b>	 118
<i>Lucas Bergkamp, Nicolas Herbatschek, and Suriya Jayanti</i>	
A. The ELD provisions on financial security and their rationale	6.06
B. Financial security instruments	6.18
C. Options adopted by Member States	6.51
D. EC 2010 Report and current status	6.73
 <b>7. The ELD's national transposition</b>	 139
<i>Barbara J Goldsmith and Edward Lockhart-Mummery</i>	
A. Introduction	7.01
B. Overview of Member State legislation implementing the ELD into Member State regimes	7.03
C. Designated Member States' competent authorities	7.06
D. Transposition choices by Member States relative to selected ELD provisions	7.08
E. Conclusion	7.39
 <b>8. Procedures under Member State law implementing the ELD</b>	 160
<i>Lucas Bergkamp and Christelle Van Wesembeeck</i>	
A. Common elements of ELD procedures	8.04
B. Prevention, mitigation, remediation	8.25
C. Cost recovery	8.61

## II EMERGING ISSUES AND PRACTICES IN THE ELD'S APPLICATION

<b>9. Experience with restoration of environmental damage</b>	181
<i>Joseph P Nicolette, Barbara J Goldsmith, Richard J Wenning, Timothy R Barber, and Fabio Colombo</i>	
A. Introduction	9.01
B. Introduction to the US experience—the NRD liability regime	9.03
C. The NRDA process pursuant to federal regulations	9.06



D. Restoration of natural resources and key considerations	9.27
E. Case study 1: oil spill	9.51
F. Case study 2: groundwater contamination	9.69
G. Differences and similarities with the US experience	9.72
H. Conclusion	9.79
<b>10. Technical and economic issues and practices in ELD application</b>	220
<i>Nicholas W Gard and William H Desvousges</i>	
A. Introduction	10.01
B. Key concepts	10.02
C. Quantification of damage and service loss	10.10
D. Approaches to assessing potential damages under the ELD	10.20
E. Tools to guide the ELD decision-making process	10.42
F. Data sources and availability	10.46
G. Technical and economic issues and practices in ELD application	10.51
H. Conclusion	10.81
<b>11. Case studies</b>	250
<i>Barbara J Goldsmith, Richard J DeSanti, and Edward Lockhart-Mummery</i>	
A. Introduction	11.01
B. Overview of cases arising under the scope of the ELD	11.04
C. Hypothetical case studies	11.14
D. Conclusion	11.90
<b>12. Emerging best practices</b>	284
<i>Barbara J Goldsmith, William H Desvousges, and Lucas Bergkamp</i>	
A. Introduction	12.01
B. Purpose of ELD best practices	12.02
C. Filling gaps and resolving uncertainties	12.06
D. The pros and cons of best practices	12.14
E. Overview of best practices developed to date	12.17

F. Recommended legal, administrative, technical, and economic best practices	12.20
G. Conclusion	12.29
III THE ELD'S FUTURE: APPROACHES, TOOLS, AND FURTHER DEVELOPMENT	
<b>13. The ELD's effects in practice</b>	299
<i>Michael G Faure and Kristel De Smedt</i>	
A. Introduction	13.01
B. The ELD's objectives and their realisation	13.04
C. The ELD's costs and benefits	13.28
D. Avoiding and circumventing ELD liability	13.40
E. Influences on other environmental regimes	13.43
F. Conclusions	13.45
<b>14. Sanctions and enforcement</b>	315
<i>Lucas Bergkamp, Nicolas Herbatschek, Michael G Faure, and Kristel De Smedt</i>	
A. Introduction	14.01
B. The economic rationale of sanctions and enforcement	14.04
C. Possible sanctions for non-compliance and enforcement	14.09
D. Conclusions	14.48
<b>15. Practice to date and path forward</b>	333
<i>Lucas Bergkamp and Barbara J Goldsmith</i>	
A. How companies can manage ELD exposure	15.03
B. How the authorities can ensure predictable ELD application	15.17
C. How other stakeholders can support the process of ELD implementation	15.25
D. How to move forward	15.30
Appendix: The EU Environmental Liability Directive	343
Index	363