

© Jayne M Godfrey and Keryn Chalmers, 2012

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system or transmitted in any form or by any means, electronic, mechanical or photocopying, recording, or otherwise without the prior permission of the publisher.

Published by
Edward Elgar Publishing Limited
The Lypiatts
15 Lansdown Road
Cheltenham
Glos GL50 2JA
UK

Edward Elgar Publishing, Inc.
William Pratt House
9 Dewey Court
Northampton
Massachusetts 01060
USA

A catalogue record for this book
is available from the British Library

Library of Congress Control Number: 2011939345



ISBN 978 1 84980 749 4

Typeset by Servis Filmsetting Ltd, Stockport, Cheshire
Printed and bound by MPG Books Group, UK

Contents

<i>List of contributors</i>	vii
<i>List of acronyms and abbreviations</i>	xv
<i>Foreword</i>	xviii
<i>Acknowledgements</i>	xx
Introduction	1
<i>Keryn Chalmers and Jayne M Godfrey</i>	
PART I WATER ACCOUNTING SYSTEMS	
1 Beyond the hydrographers' legacy: water accounting in Australia	17
<i>Maryanne Slattery, Keryn Chalmers and Jayne M Godfrey</i>	
2 The System of Environmental-Economic Accounting for Water: development, implementation and use	32
<i>Michael Vardon, Ricardo Martinez-Lagunes, Hong Gan and Michael Nagy</i>	
3 Water Footprint Accounting	58
<i>Arjen Y. Hoekstra</i>	
4 Water accounting to assess use and productivity of water: evolution of a concept and new frontiers	76
<i>Poolad Karimi, David Molden, Wim Bastiaanssen and Xueliang Cai</i>	
PART II APPLICATION AND EVALUATION OF WATER ACCOUNTING SYSTEMS	
5 Water accounting in mining and minerals processing	91
<i>Claire M. Cote, Jason Cummings, Chris J. Moran and Kristina Ringwood</i>	
6 Potential for the application of General Purpose Water Accounting in South Africa	106
<i>Denis A. Hughes, Esther Corral and Nikite W.J. Muller</i>	

7	Potential role of standardized water accounting in Spanish basins <i>Joaquín Andreu, Andrea Momblanch, Javier Paredes, Miguel Ángel Pérez and Abel Solera</i>	123
8	Development and application of the System of Environmental-Economic Accounting for Water in China <i>Hong Gan, Yu Wang, Qiong Lu, Michael Vardon and Qin Changhai</i>	139
9	Two perspectives of water resource accounting: comparing the Australian and the United Nations approaches <i>Eric Mungatana and Rashid Hassan</i>	162
PART III CONTEMPORARY ISSUES ADDRESSED BY WATER ACCOUNTING		
10	The impossible planetary trust: intergenerational equity, long-term investment and water governance and regulation <i>Gordon L. Clark and Claire Woods</i>	189
11	Water accounting, corporate sustainability and the public interest <i>Mike Muller</i>	203
12	Water accounting and conflict mitigation <i>Lise Pretorius and Anthony Turton</i>	221
13	The role of a water accounting system in the avoidance and resolution of international water disputes <i>Andrew Allan</i>	236
14	Water accounting issues in California <i>Jay R. Lund</i>	255
15	Accounting for water rights in the western United States <i>Mark Squillace</i>	270
	Conclusion <i>Keryn Chalmers and Jayne M Godfrey</i>	291
	<i>Index</i>	309