Reclamation of Contaminated Land

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Preface

Land contamination has been recognised as a challenge to present and future generations resulting from previous industrial and waste disposal practices. This book is a result of the authors’ desire to make sure that the risks from land contamination are effectively understood and adequately managed in a context of wise stewardship of resources. It is written for those embarking on their journey in contaminated land management – those final year undergraduate and postgraduate students pursuing an option in contaminated land. It is also intended for those who are of necessity caught up in the maelstrom land contamination occasionally causes in commercial practice during the buying, selling, leasing and redevelopment of land.

Over the past 6 years we have been privileged to have been involved in some of the most exciting projects in contaminated land. Our activities in consultancy, research and teaching have given us unique insights into what contaminated land managers need to know, what they frequently do not know and therefore what they need to learn. We hope that this book will find a place on shelves and desks and will wear out with constant reference during specific projects. This book is not intended to be an all encompassing manual (such as Bardos and Nathanail, *Contaminated Land Management Handbook*, Thomas Telford, London, 2004) or a ready reference guide for the practitioner (such as Nathanail, Bardos and Nathanail, *Contaminated Land Ready Reference Guide*, EPP & Land Quality Press, 2002). Rather it is an introduction to a complex, multifaceted and fascinating topic that straddles research and practice and spans science, engineering, public policy and legislation.

If you would like to find out more about the authors please visit our web sites: www.lqm.co.uk and www.r3environmental.co.uk

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Acknowledgement

The material in this book is drawn from a number of sources, in particular from the EPSRC IGDS sponsored MSc in Contaminated Land Management at the University of Nottingham (www.nottingham.ac.uk), two reports of remediation case studies commissioned by the Construction Industry Research and Information Association (www.ciria.org.uk), and reports produced by CLARINET (the Contaminated Land Rehabilitation Network for Environmental Technologies in Europe – www.clarinet.at).

We are grateful to them and a number of organisations and individuals who have helped us with words or pictures or both. We would like to thank the staff at John Wiley for their patience and perseverance during the preparation of this book and to friends, family and colleagues for conversations, advice and invaluable comments. We also gratefully acknowledge the help and assistance of:

Professor Stephan Jefferis, M.A. Smith Environmental Consultancy, Professor Phil Morgan, Ian Martin, Dr Naomi Earl, Dr Joanne Kwan and Judith Nathanail and Caroline McCaffrey of Land Quality Management Ltd.

A&G Milieutechniek B.V., Waalwijk; AEA Technology PLC; Anita Lewis; ASTM; Austrian Environment Agency; BAe Systems; Churngold Remediation Limited; DEFRA; DoE; ESI Dr Rory Doherty, Queens University Belfast; Dr Steve Wallace; Secondsite Property Holdings Ltd; Environment Agency; EPP Publications; Dr Gordon Lethbridge; Ian Martin; Judith Lowe; Lafarge; Land Contamination and Reclamation; Land Quality Management Ltd; Land Quality Press; Malcolm Lowe; Members of CLARINET; Mike Pearl UK, AEA; QDS Environmental Ltd; Scottish Enterprise; Scottish Executive; Shanks, UK; US EPA.

We also pay tribute to the late Colin Ferguson for his contributions to the field, and the authors’ experience, and, without whom the authors may never have met.
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International policy

This chapter is based on, and updates, a paper written by the late Colin Ferguson summarising the policy outcomes of the EC concerted action CARACAS (Ferguson, 1999). The purpose of this chapter is mainly to provide a short and easily accessible review of land contamination policy and practice in Europe and USA. Further details can be found in Ferguson and Kasamas (1999), Judd and Nathanail (1999) as well as at www.clarinet.at. and www.cabernet.org.uk.

Twenty or so years ago, land contamination was usually perceived in terms of relatively rare incidents, with poorly known but possibly catastrophic consequences for human health and the environment. Several incidents attracted major media attention, e.g. Love Canal, NY; Times Beach, MO; Lekkerkerk, the Netherlands; Minimata, Japan. Consequently, politicians and regulators responded by seeking maximum risk control: pollution should be destroyed, removed or contained completely. The Superfund programme in the USA, which was largely a response to Love Canal and a few other highly publicised sites, initially focused on ‘the worst 100 sites in the nation’. Even today, after over 25 years and the expenditure of many billions of dollars, the number of US sites remediated under the Superfund programme amounts to only a few hundred. Increasingly, sites on the US National Priorities List (NPL), i.e. the so-called Superfund sites, are being remediated with no access to Superfund monies.

Today land contamination is no longer perceived in terms of a few severe incidents, but rather as a widespread infrastructural problem of varying intensity and significance that is an inheritance from past industrial and waste disposal practices. It is now widely recognised that drastic hazard or contaminant control, e.g. cleaning up all sites to background concentrations or to levels suitable for the most sensitive landuse, is neither technically or economically feasible nor is such control compatible with sustainable development. To give an example, in 1981 about 350 sites