Long-term Hazard to Drinking Water Resources from Landfills

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About the Book

The co-disposal of domestic waste with industrial waste can represent a serious hazard to prime sources of drinking water throughout the world. Containing the latest research on the risks to groundwater over time, this book provides a scientific case for more sustainable landfill construction - over overwhelming implications for changes in waste management legislation as well as engineering practice.

Examining each of the main stages of landfill decomposition and using extensive real-scale testing, the book trades theory for pragmatism and shows just how vulnerable groundwater is to contamination from old 'dormant' landfills. It then provides a new method for measuring the extent to which the ingress and egress of water can be controlled in landfill and the associated risks of groundwater contamination. The authors also offer practical suggestions for developing more sustainable and affordable waste management projects.

Coverage includes:

- Long-term real-scale tests of landfills
- Reducing risks to groundwater from old landfills
- Aerobic treatment of landfill
- Aeration and excavation
- Protection of drinking water
- Guidance on developing affordable water management projects

Based on over 30 years' research, *Long-term Hazard to Drinking Water Resources from Landfills* will be core reading for research institutes and advisory committees of national and international decision-makers (WHO; FAO; EU), national and international administrative bodies and consulting engineers in environmental medicine, water management, hydrogeology and water management.

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