Overview

• Legislation
• Risk Based Approach
• Guidance
• Brownfield Development – enabling factors
• Sustainable Remediation
The UK is divided into:

- England
- Wales
- Scotland
- Northern Ireland

- Environmental Protection is a devolved issue and different regimes exist in each territory
Scale of the Problem

- In England and Wales 300,000 hectares potentially affected (325,000 sites)
- 14,000 gasworks
- 1,700 chemical works
- Actual size of the problem unknown
- UK Expenditure on measures to address contamination c.£1Billion per year
<table>
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<tr>
<th>Environmental Quality Standards</th>
<th>Integrated Pollution Prevention &amp; Control (IPPC)</th>
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<tr>
<td>Groundwater Directive</td>
<td>Landfill Directive</td>
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<td>Nitrates Directive</td>
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<td>Mining Waste Directive</td>
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Domestic Legislation

- Redevelopment:
  - Town and Country Planning Act 1990
- Historical contamination:
  - Part 2A of Environmental Protection Act 1990 (as inserted by Environment Act 1995)
  - Contaminated Land (England) Regulations 2006 (as amended)
- Prevention of New contamination:
  - Environmental Damage (Prevention and Remediation) Regulations 2009
  - Groundwater (England and Wales) Regulations 2012
  - Environmental Permitting (England and Wales) Regulations 2010
Sites & Legislation

Environmental Permitting
Environmental Permitting Regulations

Sites

Contaminated Land Register / Inspection Strategy
Part 2A, Environmental Protection Act
Retrospective Catch-All

Planning
Town & Country Planning Act (1990)
New Development Driver
Part 2A Contaminated Land Regime

- Three tiers, with following hierarchy:
  - Part 2A Environmental Protection Act 1990 (as inserted by Section 57 of Environment Act 1995)
    - Regime for the identification and remediation of Contaminated Land in England, Scotland and Wales
  - Contaminated Land (England) Regulations 2012
  - DEFRA Statutory Guidance 2012
    - “How to” guide for:
      - Regulators to ‘Determine’ sites as Contaminated Land and secure remediation
      - Land owners to avoid this
Definition of Contaminated Land

• Part 2A official definition:
  “Contaminated land is any land which appears to the local authority in whose area it is situated to be in such condition, by reason of substances in, on or under the land that:
  ▪ A) Significant harm is being caused or there is a significant possibility of such harm being caused, or
  ▪ B) Significant Pollution of controlled water is being, or is likely to be, caused”

• Four Category Spectrum of Risk
  Categories 1 & 2 – Contaminated Land
  Categories 3 & 4 – Not Contaminated Land
Pollutant Linkage/Risk Assessment

- Three elements need to be present for there to be a pollutant linkage and thus a risk:
  - Source (of contamination)
  - Receptor (sensitive to contamination)
  - Pathway (for contamination to travel along between source and receptor)

- Without a Pollution Linkage there is:
  - NO risk
  - NO remediation needed!

- Overarching assumption is to do as little as needed!
  - To do this, a staged approach is used
UK Experience Summary

• Role of legislation to encourage the voluntary remediation contaminated sites and use of enforcement action on high risk sites.
• Role of Spatial Planning regulations to facilitate Brownfield redevelopment
• Legislation can support Brownfield trading market (Part IIA exemption tests)
• Role of risk assessment, cost-benefit analysis, sustainability appraisal and risk thresholds
• Increased recycling of soils
• Tax incentives for land remediation
Role of Legislation

Regulatory enforcement level

Likely voluntary development-led standard
Spatial Planning Regulations

• UK National Planning Policy Framework (NPPF)
  • Encourages remediating of derelict and contaminated land (section 109)
  • Requires developers to secure a safe development where a site is affected by contamination (s.120)
  • Ensure site is suitable for new use including where land remediation is carried out (s121)
  • after remediation, as a minimum, land should not be capable of being determined as contaminated land under Part IIA of the Environmental Protection Act 1990 (s121)
  • Use of adequate site investigation data (s121)
Regulations to support liability transfer

- UK Part IIA regulations include sections on how liability should be apportioned between parties where remediation is required (Exemption Tests)
- Tests also serve as a framework for how liability can be transferred by Corporate bodies

<table>
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<tr>
<th>Test 1. Excluded activities (e.g. Finance, Service provision)</th>
<th>Test 2. Payments for Remediation</th>
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<td>Test 4. Changes to Substances</td>
<td>Test 3. Sold with Information</td>
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<td>Test 5. Escaped Substances</td>
<td>Test 6. Introduction of pathways or receptors</td>
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Role of Technical Tools

- Recognised role of risk assessment, cost benefit analysis and risk thresholds (Technical Tools)
  - Site-specific risk assessment, end-use related
  - Cost-benefit decision-making for environmental improvement

- Embed sustainability into the development-led design
- Recognised that generic risk thresholds drive assessment and remediation behaviour
Sustainable remediation during Development

Embed remediation into development design

Prior to approval of development

SuRF-UK framework
Recognising role of threshold levels

Likely voluntary development-led standard

Minimal risk thresholds
Increased recycling of soils

- UK Code of Practice launched in 2008
- Allow soils to be re-used without being classified as waste
- Built on provisions of EU Waste Framework Directive
- Supported re-use of 16 M m³ of excavated soils
- Estimated at > € 250M savings
Land Remediation (tax) Relief

- Land Remediation Relief is a corporation tax relief.
- Introduced in 2001 to address market failure.
- To encourage the re-development of land blighted by contamination from previous industrial use.
- Available where companies acquire land in a contaminated or derelict condition.
- The “polluter pays” principle applies to Land Remediation Relief.
- Applies to both capital and revenue expenditure.
Drivers for sustainable remediation

• Industry
  – Corporate Social Responsibility (CSR), business ethics, sustainable procurement, Corporate SD policies

• Regulatory
  – Appropriate and reasonable solutions
  – Planning and Contaminated Land Regimes

• Planning
  – Sustainability tests in planning applications
  – Sustainability criteria in spatial planning
SuRF-UK

• UK-based collaboration of industry, regulators, academics and consultants
• Established in 2007, following the lead of SURF (US)
• Independent co-ordination by CL:AIRE (www.claire.co.uk/surfuk)
• Secretariat has been funded by UK government and industry. In-kind support from industry, regulator, consultants etc.

Aims
• A framework for assessing sustainable remediation that is effective, practical and achieves regulatory acceptance
• Develop relevant sustainability indicators
• Support use of sustainability thinking in contaminated site management in the UK
• Workshops and self-help
Summary

- Risk based approach
- Site by site
- No register = no blight
- Market based mechanisms e.g. tax incentives
- Driven by spatial planning and development – ‘suitable for use’
- Only regulate where market will not work alone
- Sustainable remediation built into the framework
- High level of expertise in UK industry
- Supported by guidance, models and best practice
Brownfield Market across EU

Source:
Working together….

• MEP/Defra relationship
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