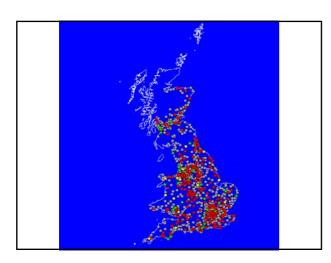
# A Risk Based Approach Contaminated Land Redevelopment

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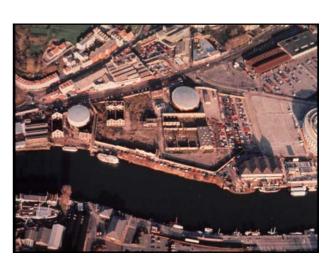
- · Secondsite & Nicole
- · Risk based approach
- Planning System and requirements
- Contaminated land regulations
- · Portfolio case study
- Conclusions



## **Our Heritage**

- Manufactured gas production commenced 1798
- 1000 gas undertakings nationalised in 1949
- Natural gas introduced 1967-1977
- British Gas privatised with around 1000 former gasworks in 1986
- British Gas Properties formed 1994
- BG plc Property Division formed February 1997
- BG Property Holdings Ltd formed December 1999





# -NICOLE-A Success Story

- Industry Group & Service Providers Group
- · Over 150 members
- · Supported by knowledgeable secretariat
- · Opinions respected and actively sought by others
- Engaged regulator/Gvt community
- Risk based Contaminated Land Management approach popularised
- · Viable and vibrant network
- NICOLE Phase 3 underway...

### NICOLE Phase 3

- (1) provide a European forum for the dissemination and exchange of good practices, practical and scientific knowledge and ideas to manage contaminated land in a sustainable way;
- (2) stimulate coordinated, interdisciplinary projects on collaborative research and knowledge transfer to address identified needs; and
- (3) develop new relationships and strengthen existing relationships with other networks.

### Contaminated Land Management

- A parallel system of controls
  - Planning and development controls; or
  - Ongoing compliance with environmental legislation
- Work is triggered by
  - Change of use; or
  - Actual or potential breaches of 'compliance'
- A risk based approach based on FFP

### Risk Assessment Approach Source Receptor **Pathway** Risk Management Options Reduce Interrupt Remove Remove or Relocate receptor Contain source or treat to acceptable e.g. borehole or treat plume humans levels

### A Tiered Approach

- · Initial site screening for historic uses etc
  - Commercial providers, web based screening tools
- · 'Desk Study'
  - Collates relevant information and produces CSM
  - Recommends need (or not) for intrusive SI
- · Site Investigation
  - Tiered collection of real site data
  - Tiered risk assessment (from SGV's to full QRA)
- Development of risk management objectives, approach and Methods
- Implementation
- · Validation/verification reporting

### The Risk Base Approach Means

- Future use must be know before detailed QRA can commence. This could be
  - Continued existing use
  - A defined change of use
- Future use must be defined before remediation standard can be agreed
- · Remediation is only triggered where
  - Site is not suitable for continued existing use (contaminated land regime and other environmental legislation)
  - Where there is a change of use planned (planning regime)
- Risk management options can be built into development design.
- Development appraisal can optimise costs and benefits

## Planning Regime

### The Development Planning Process

- Town and Country Planning Act 1990
- Permission under Act required for
  - Change of use of land
  - Building or engineering works
- Also provides for master planning to guide future development
- Legislation administered at local, regional and central govt. levels
- Supported by Planning Policy Guidance (PPG's)
- Policies place emphasis on using PDL before greenfield sites
- Additional legislation e.g. to protect SSSI's

### **PPG 23**

Works on any contaminated site should deal with "any unacceptable risks to health or the environment, taking into account its actual or intended use"

## Planning and Contaminated Land

- Land contamination is a material consideration under the planning regime
- Development control is the main means of dealing with contaminated land in the UK
- Three defined aims
  - Deal with actual or perceived threats to HS or E
  - Keep or bring back land into beneficial use
  - Minimise avoidable pressure on greenfield sites
- · Planning conditions can include
  - Requirement to conduct SI
  - Requirement to remediate to an agreed standard
- Development cannot continue until conditions have been discharged

## Contaminated Land Regime

# Contaminated Land Regulations

- · Provides a definition of contaminated land
- LA's now lead regulators
- LA has duty to inspect area (from 'time to time')
- Must set out its approach in a written strategy
- Rational, ordered and efficient...identifying most pressing and serious problems first (proportionate)
- · Identify receptors and potential pathways first
- · Can take account of existing information
- Then identify 'appropriate person'

### What is Contaminated Land s57?

Land which appears to the Local Authority to be in such a condition, by reason of substances in, or under it, that:

- (a) Significant harm is being caused or there is a significant possibility of such harm being caused
- (a) Pollution of controlled waters is being, or is likely to be, caused.

# The Importance of a Proactive Approach (the regeneration route) Whole Portfolio Remedial Remediate Investigate Monitor Remediate

## Case Study

### Granton Gasworks

- · Major gasworks serving Edinburgh, Scotland
- Affected by historic gasworks contamination
- Master plan developed with LA
- · Risk assessment and remedial actions agreed
- Remediation scheme phased with development
- Controlled through development planning conditions











# Summary

- Risk based approach site use driven
- Parallel control system
  - Planning Regime
  - Environmental Regulations
- Majority of land is dealt with through planning system
- Worst sites dealt with through Contaminated Land Regime
- Need to manage which system to use and when (timing)