
**Developer's Guide To Potentially
Contaminated Land, Sensitive
End Uses and the Risk
Assessment Process**

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1.0 Introduction

- 1.1 The purpose of this guidance is to make developers aware of what information the Council requires in order to assess an application for planning permission on land, which may be affected by the presence of contamination, and in particular when submitting a Preliminary Risk Assessment.
- 1.2 This is an overview of the procedure and is not an exhaustive list although it include guidance on the minimum requirements for investigations, reports etc.
- 1.3 Full details of the specific requirements for a Phase I Preliminary Risk Assessment and a Phase II assessment are available on request:

2.0 Background Information to Contaminated Land Requirements

- 2.1 Government guidance recognises land contamination as a material planning consideration and that the development phase is the most cost-effective time to deal with the problem.
- 2.2 Typical causes of land contamination include previous industrial or commercial use, mining, and land filling of waste. Land can also be contaminated due to its proximity to contaminated areas and contaminated in its natural state.
- 2.3 In response to increasing contamination issues the Government introduced new legislation in April 2000 (Part 2A of the Environmental Protection Act 1990) requiring all local authorities to inspect their areas for potentially contaminated land and, if necessary, to ensure that any contamination is 'cleaned up' (remediated). In Part 2A the legal definition of 'contaminated land' is:

"any land which appears to the local authority in whose area it is situated to be in such a 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) pollution of controlled waters is being, or is likely to be, caused."

2.4 A key element of the Part 2A regime is the pollutant linkage concept: -

SOURCE – PATHWAY – RECEPTOR

- the source is the contamination in, on or under the land
- the pathway is the route by which the contamination reaches the receptor
- the receptor is defined as living organisms, ecological systems or property that has been harmed. (Defra Circular 1/2006)

2.5 All 3 elements (source, pathway, receptor) of the pollutant linkage, need to be identified in order to classify land as “contaminated” under the regime.

2.6 As part of these 2A requirements, all councils had a duty to produce a ‘Contaminated Land Strategy’ by July 2001 with the main aim to identify all areas of land that are potentially contaminated within each local authority’s boundaries. Copies of the Gateshead Councils Contaminated Land strategy are available on request or via:

<http://www.gateshead.gov.uk/Environment%20and%20Waste/protection/contaminatedland/strategy.aspx>

2.7 Ultimately the planning process is the main driver for dealing with and identifying land contamination issues in conjunction with this strategy. Subsequently it is crucial that appropriate assessments are made to confirm the site is suitable for use.

Definition of 'suitable for use'

2.8 UK policy is that land affected by contamination should be controlled and remediated based on the “suitable for use” principle. This principle allows a decision to be made as to whether there are unacceptable risks to people or to specific parts of the wider environment, including property, from the actual or intended use of the site. In other words, each case is assessed on a site-specific basis and an assessment of risk used to determine the extent of the remedial works needed. Developers should not put off remediation for fear

that they will be required to do more work than is required under current legislation – cleanup to residential development standards would not be required if an industrial development was being proposed.

- 2.9 As a result, land contamination issues are inevitably a factor in many new developments. Planning Policy Statement 23: Planning and Pollution Control (PPS23) states that land contamination, or the possibility of it, is a material planning consideration in taking decisions on planning applications.

“The possibility of contamination should be assumed when considering both development plans and individual planning applications in relation to all land subject to or adjacent to previous industrial use and also where uses are being considered that are particularly sensitive to contamination – e.g. housing, schools, hospitals, children’s play areas”. PPS23 Annex 2.

- 2.10 It should be noted that the planning system does use a slightly different definition for contaminated land than that used in Part 2A . Planning guidance (Annex 2 of Planning Policy Statement 23, PPS23), uses the term ‘**land affected by contamination**’ which covers cases where

“the actual or suspected presence of substances in, on or under the land may cause risks to people, properties, human activities or the environment, regardless of whether or not the land meets the statutory definition in Part 2A.”

- 2.11 The principle difference is that under the planning system risks have to be assessed based upon the **new or intended use** (notably sensitive end uses) of the land rather than the existing use, upon which risks are based in the Part 2A regime.

- 2.12 Failure to appropriately address risks from land affected by contamination at the time of development may result in later enforcement action being taken as well as action under Part 2A of the Environmental Protection Act 1990. Advice on how contamination issues are dealt with through this mechanism is described in DEFRA Circular 01/2006 – ‘Environmental Protection Act 1990: Part 2A Contaminated Land’.

- 2.13 It is important to remember that it is firstly the developer's responsibility to ensure that the development is safe and the site is suitable for its proposed use and then the Local Planning Authority's (LPA) duty to ensure that the developer undertakes this assessment and implements any remedial requirements in a responsible and effective manner.

3.0 **Contaminated Land Requirements at the Planning Application Stage**

3.1 **When is a Land Contamination/Preliminary Risk Assessment Required?**

- 3.1.1 Section 15 of the 1APP form introduced in April 2008 by the government department for Communities and Local Government (CLG) to replace all existing planning application forms within England, asks whether the proposal involves any of the following:

- Land which is known to be contaminated?
- Land where contamination is suspected for all or part of the site?
- A proposed use that would be particularly vulnerable to the presence of contamination.

15. Existing Use	
Please describe the current use of the site:	
<input type="text"/>	
Is the site currently vacant?	<input type="checkbox"/> Yes <input type="checkbox"/> No
If Yes, please describe the last use of the site:	
<input type="text"/>	
When did this use end (if known)? DD/MM/YYYY (date where known may be approximate)	<input type="text"/>
Does the proposal involve any of the following:	
Land which is known to be contaminated?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Land where contamination is suspected for all or part of the site?	<input type="checkbox"/> Yes <input type="checkbox"/> No
A proposed use that would be particularly vulnerable to the presence of contamination?	<input type="checkbox"/> Yes <input type="checkbox"/> No
If you have answered Yes to any of the above, you will need to submit an appropriate contamination assessment.	

3.1.2 In accordance with these stipulations if any of the answers are yes, a Phase 1 Land Contamination Assessment (often referred to as a Preliminary Risk Assessment (PRA) will specifically be required to validate the application. To clarify this includes:

- a) Development proposed on land that has been identified as being contaminated or land that is adjacent to an affected site in accordance with Gateshead Councils "Potentially Contaminated Land" Gateshead Map – January 2008 or
- b) Development which is identified as being a sensitive end use.

3.1.3 Land uses considered to be sensitive include:

- All residential development (Including single dwellings)
- Allotments
- Schools
- Nurseries
- Playgrounds
- Hospitals
- Care Homes

3.2 What is Required in a Phase 1 Assessment?

3.2.1 The Phase 1 Land Contamination Assessment should include a desk top study, site walkover, conceptual site model the preliminary risk assessment (PRA) and conclusions of assessment.

Please note for clarification purposes Phase 1 Land Contamination Assessments are sometimes referred to as Preliminary Risk Assessments at the validation stage but it is important that irrespective of the terminology used a desk top study, site walkover, conceptual site model and a specific Preliminary Risk Assessment are provided.

- 3.2.2 The purpose of a Phase 1 Land Contamination Assessment or Preliminary Risk Assessment (PRA) as it is often referred as is to establish the previous uses of the land under consideration or land nearby or adjacent to, and to initially identify potential sources of contamination, receptors and pathways.
- 3.2.3 As part of the desktop study and site walkover it is important to identify all past uses of the site, and adjacent or nearby sites, since pollutants have the potential to travel away from the source, depending on the geology, groundwater and surface water of the area.
- 3.2.4 The desktop study and the site walkover should be the first stages of any site assessment and should enable a 'conceptual site model' of the site to be produced that provides a clear interpretation of all plausible pollutant linkages at the site.
- 3.2.5 The Preliminary Risk Assessment compiled following the completion of the conceptual model will assess whether a Phase 2 Intrusive Site Investigation is required. However where a Phase 2 Assessment is required this can be conditioned as part of the planning application.
- 3.2.6 Where significant contamination is known or is likely to be present, it may be necessary to carry out some site investigations before determining an application, as significant contamination may limit the allowable land uses.

3.3 What happens next?

- 3.3.1 Once produced all Phase 1 Land Contamination Assessments should be sent directly to Gateshead Councils Development Control Department for consideration as part of the application. For each application at least 3 copies of each report should be submitted.

Preferably any Phase 1 Land Contamination Assessment will have been submitted for pre-application discussion prior to the application being submitted.

3.3.2 Providing the submitted reports meet the criteria of the Tyne and Wear validation checklist, full list available at <http://www.gateshead.gov.uk/DocumentLibrary/Building/Strategies/ValidationFinal.pdf>, the Planning Case Officer will then forward reports on to the appropriate statutory consultees, where necessary, for consultation comments as part of the application process.

A flow chart of the contaminated land procedure is attached to Appendix A1, although at this stage applicants only need to address Phase 1.

3.3.3 This list of consultees includes the Environment Agency and the Councils Landscape and Reclamation Team in Design Services who will comment on risks posed to Controlled Waters and Human Health respectively and assess the acceptability of the assessment.

3.3.4 Once the relevant consultations have taken place and the Phase 1 Assessment is considered acceptable, providing all other material planning considerations are satisfied, the Local Planning Authority may look to attach planning condition(s) to Planning Approvals to ensure appropriate works are carried out.

3.3.5 These conditions may request:

- Works to be carried out in accordance with recommendations set out in the Phase 1 Land Contamination Assessment.
- Phase 2 Investigation required with results submitted to LPA for consideration.
- Any gas monitoring requirements undertaken and results submitted.
- Verification Report to demonstrate the works have been carried out satisfactory.
- Request to stop if any un-identified contamination is discovered and remediation strategy amended accordingly.

3.3.6 Please be aware that irrespective of whether the submitted Phase 1 Land Contamination Assessment is acceptable for validation purposes, if it does not adequately address the contamination issues associated with the

application site, the planning application may be refused due to insufficient information.

The scope of submitted reports and necessary level of investigation must reflect the size and complexity of the site, as well as the likely hazards posed by any contamination, the risks involved, and the sensitivity of the proposed development.

All supporting evidence should be produced by appropriately-qualified professionals.

- 3.3.7 When commenting on contaminated land reports and proposed remediation strategies, Gateshead Council will not accept responsibility for the effectiveness of the design and completion of remediation measures. The responsibility for providing this information remains at all times with the developers and their advisors. Developers should therefore fully appreciate the importance of competent professional advice, supported by sufficient professional indemnity insurance.
- 3.3.8 Further advice on contaminated land can be found in Planning Policy Statement 23: Planning and Pollution Control on the Communities and Local Government website - <http://www.communities.gov.uk/index.asp?id=1143916> and the Environment Agency's website - <http://www.environment->
- 3.3.9 In addition more specific details on compiling a Phase 1 Land contamination assessment/preliminary risk assessment can be found in the Councils supplementary guidance, Phase 1 Land Contamination Assessment/Preliminary Risk Assessment

A flow chart is also available in Appendix A1 which sets out the full Land Contamination Assessment procedure.

4.0 Developer's Responsibility

- 4.1 The site investigation procedure involves specialist technical knowledge and it is essential that competent and experienced personnel who should preferably hold recognised and appropriate qualifications conduct all phases of the site investigation procedure. Where a geotechnical study and a contamination study are combined within one report the consultant should be able to

demonstrate that he is competent and has expertise to provide advice on both.

4.2 In the past the Landscape and Reclamation Team have received reports submitted on behalf of developers that have not used a proper scientific or appropriate sampling strategy in order to assess risks from land contamination. It is essential that developers base their site investigations in accordance with current good practice.

4.3 Examples of current good practice can be found in the following documents:

- BS 10175:2001 British Standard Institute (2001) Investigation of Potentially Contaminated Sites - Code of Practice, British Standard Institute. London.
- Environment Agency (2004) Contaminated Land Report 11; Model Procedures for the Management of Land Contamination
- Environment Agency (2000) Technical Aspects of Site Investigation (2 Vols.). Research and Development Technical Report P5-06517R. Water Research Centre, Swindon
- Environment Agency (2000) Guidance for the Safe Development of Housing on Land Affected by Contamination. The Stationary Office. London
- Environment Agency (2001) Secondary Model Procedure for the Development of Appropriate Soil Sampling Strategies for Land Contamination. R&D Technical Report PS-066/7R. Water Research Centre, Swindon

MANDATORY GUIDANCE

- Environmental Protection Act 1990: Part 2A Contaminated Land – DEFRA Circular September 2006, www.defra.gov.uk
- The Contaminated Land (England) Regulations 2000
- The Environment Act 1995
- The Environmental Protection Act 1990

ADVISORY GUIDANCE

- Gateshead Council Guidance on Phase I Land Contamination Assessments/Preliminary Risk Assessment.
- Gateshead Council Guidance on Phase II Land Contamination Assessment
- Model Procedures for the Management of Contaminated land (CLR11): 2004
- Environment Agency, Human health toxicological assessment of contaminants in soil (Science Report Final SC050021/SR2), 2009
- Environment Agency, Updated technical background to the CLEA model (Science Report Final SC050021/SR3), 2009
- CLEA software V1.04 licence agreement (PDF, 114KB)
- BS 10175:2001 – Investigation of Potentially Contaminated Sites – Code of Practice
- Environment Agency/NHBC R&D Publication 66 - 'Guidance for the Safe Development of Housing on Land Affected by Contamination', 2008
- Planning Policy Statement 23: Planning and Pollution Control: 2004
- DOE (Department of the Environment) Contaminated Land Research Report: Guidance on Preliminary Site Inspection of Contaminated Land: 1994.
- DOE Contaminated Land Research Report: Sampling Strategies for Contaminated Land: 1994.
- BS 5930: Code of Practice for Site Investigations: 1999.
- BRE Construction of New Buildings on Gas Contaminated Land: 1991.
- DOE Waste Management Paper 27: Landfill Gas: 1989.
- Environment Agency, Methodology for the Derivation of Remedial Targets for Soil and Agency R&D Groundwater to Protect Water Resources, R&D Publication 20,1999
- DoE, 1995 Industry profiles (various titles)
- CIRIA, 1995 Remedial Treatment for Contaminated Land, SP 104,Classification and Selection of Remedial Methods
- DoE, 1994 Guidance on Preliminary Site Inspection of Contaminated Land, CLR2
- DoE, 1994 Sampling Strategies for Contaminated Land

- EA, 2001 Secondary Model Procedure for the Development of Appropriate Soil Sampling Strategies for Land Contamination
- INFO-PM2b CIRIA, 1996 A Guide for Safe Working on Contaminated Sites, R132
- CIRIA C659, Assessing risks posed by hazardous ground gases to buildings, 2006
- The Chartered Institute of Environmental Health: The Local Authority Guide to Ground Gas, 2009

Appendix A1 – Land Contamination Assessment Flow Chart

