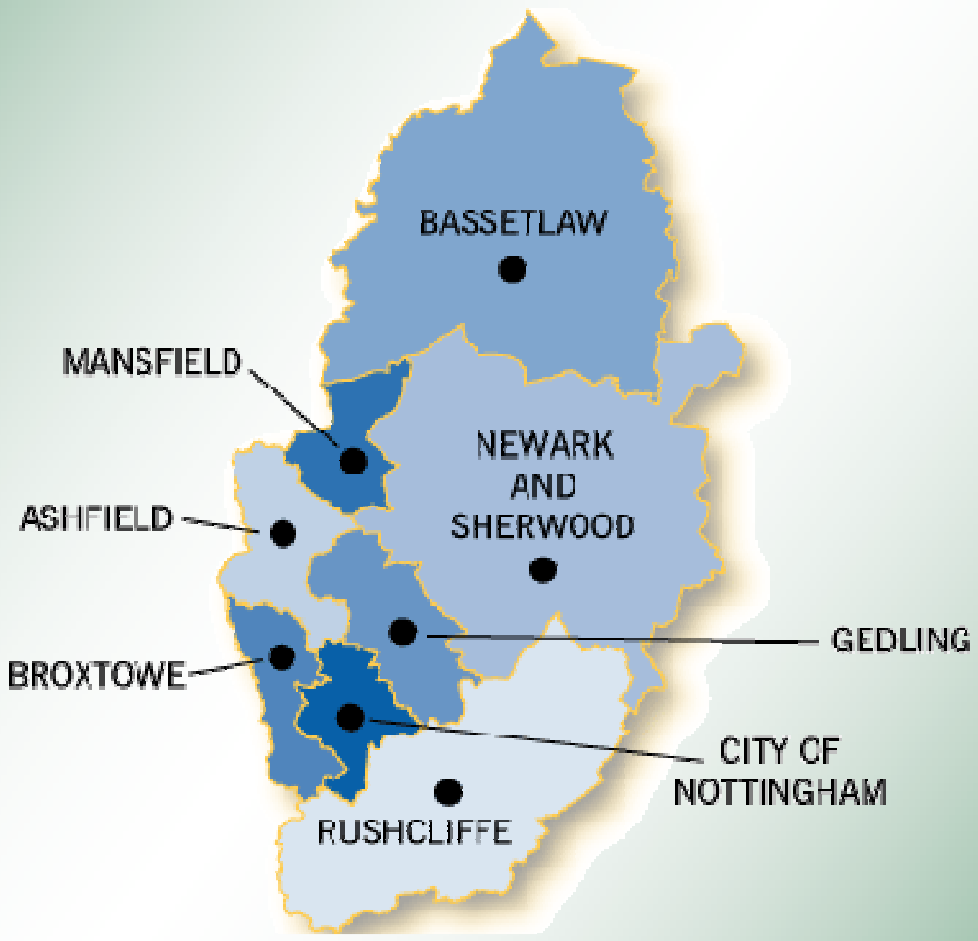
A guide to Developing Land within Nottinghamshire



Guidance for landowners and developers

Produced by the Nottinghamshire Land Quality Sub-group 2009

Ashfield

NEWARK & SHERWOOD DISTRICT COUNCIL

GEDLING BOROUGH COUNCIL

Nottingham City Council

Rushcliffe Borough Council

Nottinghamshire County Council

Mansfield District Council

BASSETLAW DISTRICT COUNCIL NORTH NOTTINGHAMSHIRE

Broxtowe Borough Council

Environment Agency

1.0 What is this booklet for?

1.01 The purpose of this document is to advise developers of the type of information all Nottinghamshire authorities require in order to assess an application for planning permission on land possibly affected by contamination.

1.02 Taking on board the information and processes detailed in this document will prevent any time delays or misunderstandings at a later stage in the development process. This document is by no means exhaustive and where a developer proposes to develop land which has the potential to be contaminated it is advisable to contact the relevant authorities Contaminated Land Officer to discuss any issues prior to submitting a planning application.

2.0 Introduction

2.01 The Nottinghamshire Land Quality Sub-group, consisting of representatives from all the Nottinghamshire Local Authorities, the Environment Agency and the Health Protection Agency, decided that there was a need to produce a guide for developers on how to deal with land contamination. This would ensure a consistent approach across the County.

2.02 Government guidance (Environmental Protection Act 1990 & Town and Country Planning Act 1990) recognises that land potentially affected by contamination is a material planning consideration and that the development phase is the most cost-effective time to deal with the issue. Under the aforementioned legislation developers are responsible for establishing the extent of any potentially harmful contaminants on their sites.

2.03.1 Where a developer is proposing to develop land with the potential to be contaminated it is advisable to contact the Council's Contaminated

Land Officer to discuss development issues prior to submitting a planning application.

Local Authority Contact details

Local Authority	Contact Telephone Number
Ashfield District Council	01623 457418
Bassetlaw District Council	01909 533 533
Broxtowe Borough Council	0115 917 7777
Gedling Borough Council	0115 9013901
Mansfield District Council	01623 463463
Newark & Sherwood District Council	01636 650000
Nottingham City Council	0115 915 6410
Rushcliffe Borough Council	0115 981 9911

Other useful contacts

Agency	Contact Number
Natural England	01476 568 431
English Heritage	01604 735 450
Environment Agency – General - Land contamination	08708 506 506 0115 8463702

3.0 Submitting an application

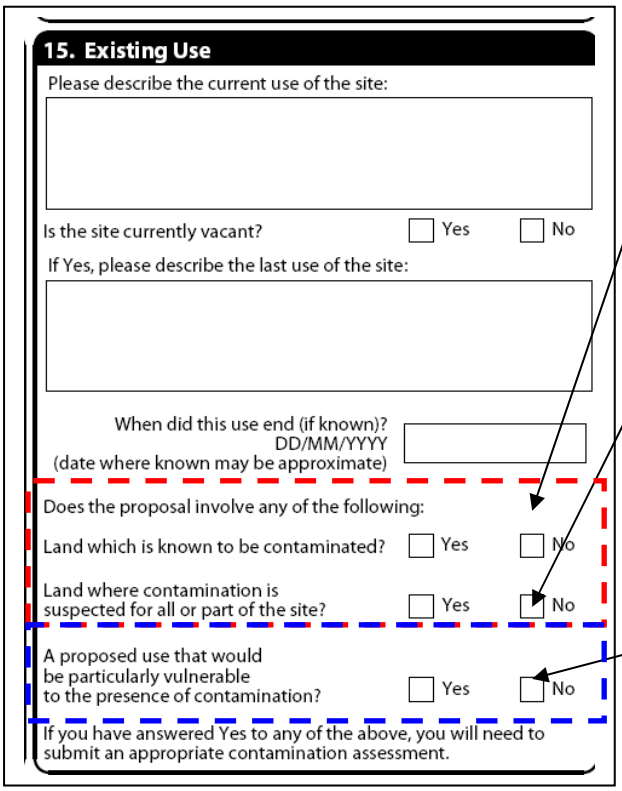
3.01 The local authority has a duty to ensure that the developer carries out the necessary site investigations; and where applicable ensure that the developer produces a suitable remediation strategy so that any contamination is dealt with in a responsible and effective manner. This duty is discharged by the Council by attaching a suitable contaminated land condition(s) to relevant planning permissions. ***Ultimately it is the responsibility of the developer to ensure that the site is suitable for its proposed use.***

3.02 When deciding whether a preliminary risk assessment is required before a planning application is determined, the risk associated with the proposed use must be considered along with the risk associated with the previous use. The national planning application form (1APP) includes a section on land contamination. The Existing Use section

(normally section 15) requires the applicant to identify if there is a potential for land contamination.

3.1 Standard 1APP Form

3.1.1 If, when completing the application form, the answer to any of the questions in Section 15 of the 1APP form is 'yes' then an appropriate contaminated land assessment must be submitted with the planning application. As a minimum, a contamination assessment must include a Phase I investigation - desktop study, site walkover and initial risk assessment. (Also refer to Annex 1)



See Annex – Table 2

See Annex – Table 1

This would include a development on land which has known contamination.

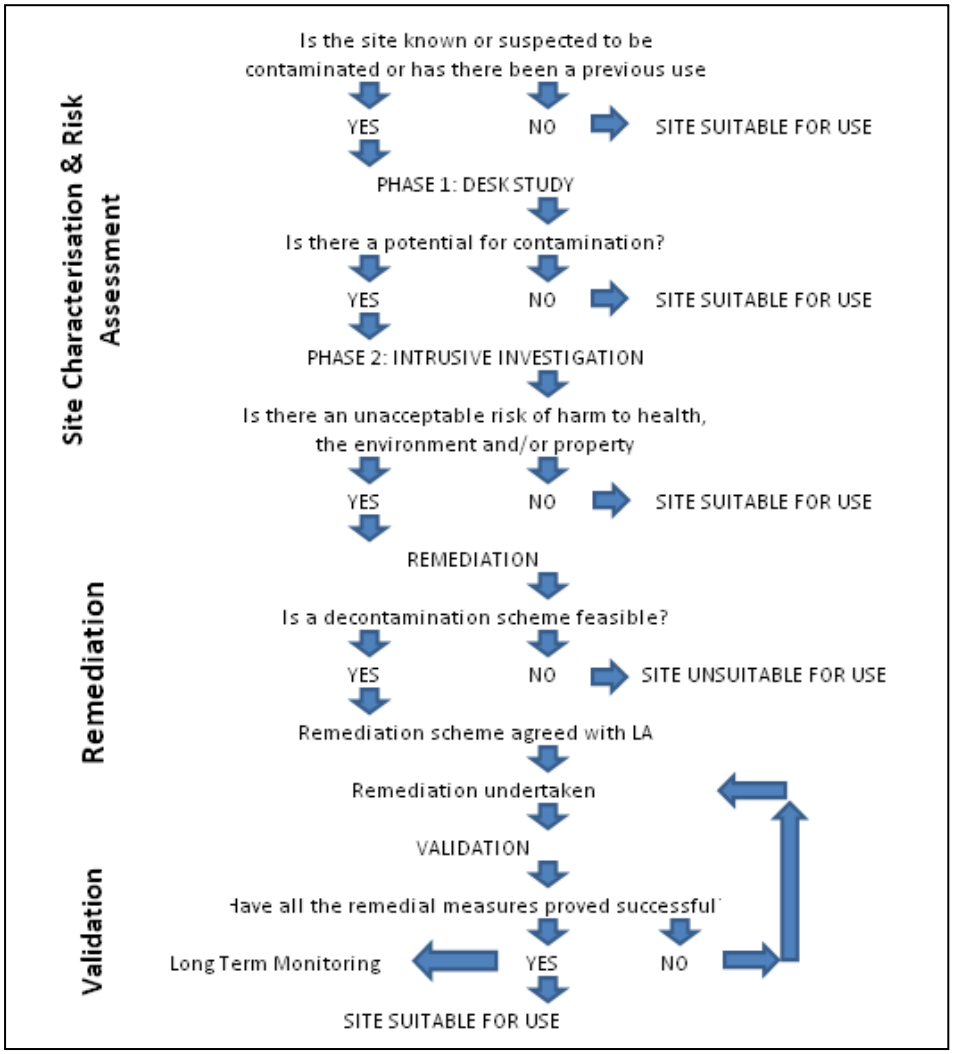
This would include a development on or near land, which has had a potential contaminative use

Contamination is not restricted to land with previous industrial use. It can occur on Greenfield sites as well as previously developed land.

3.1.2 The findings from the Phase I desktop study will inform the contaminated land officer on whether a contaminated land condition, requiring specific works or further investigation, needs to be attached to any planning permission (Refer to Checklist for details on information required for desktop Study)

4.0 Phased investigation.

4.01 Should a contaminated land condition be attached to any planning permission, suitable investigations will need to be undertaken to determine the extent of any contamination and detail any remediation/mitigation works required to ensure the site is suitable for purpose. To provide suitable information allowing the contaminated land condition to be discharged the development must follow the following phases.



4.02 Including the desktop study there are four phases to the investigation of contaminated land. These are Phase I - Desktop Study; Phase II – Site Investigation; Phase III – Remediation and Phase IV – Validation. The information required for each of these phases is provided through the following checklists.

4.1 Checklists

4.1.1 The following checklists are a guide on what the Council requires when assessing the content of any site report submitted in response to a planning application. If any of the items listed below are not submitted in the reports then a full explanation should be included as to their omission.

4.1.2 The checklists below are by no means exhaustive, and as such the content of any report may vary due to site specific issues e.g. the past use of the site, the nature and extent of the contamination, and the proposed end use of the site.

4.2 Phase I — Desktop Study

4.2.1 The desktop study is the collation of site specific information in order that a conceptual site model can be established. This conceptual model considers all potential contaminant sources, pathways and receptors, defined as a pollutant linkage. The desktop study should document the site history and identify all potentially contaminative land uses back to when the site was Greenfield. The conclusions of the report should contain recommendations for any progression to Phase II, if required.

Phase I - Desktop Study Report (Submit for approval prior to development works)	**Included**
• Purpose of aims and study	[ ]
• Site location and layout plans (appropriately scaled and annotated)	[ ]
• Appraisal of site history	[ ]
• Appraisal of site walkover study	[ ]
• Assessment of environmental setting, to include: * Geology, Hydrogeology, Hydrology * Information on mining/quarrying activity * Information from EA on abstraction, pollution incidents, water quality and landfill sites.	[ ]
• Assessment of current/proposed site use and surrounding land uses	[ ]
• Review any previous site contamination studies (desk based/intrusive) remediation works	[ ]
• Preliminary risk assessment, based on proposed development and to include: * Appraisal of potential/actual contaminant sources, pathways and receptors (pollutant linkages) * Conceptual site model (diagrammatic and written)	[ ]
• Recommendation for intrusive contamination investigation (if necessary) to include: * Identification of target areas for more detailed investigation * Rationale behind design of detailed investigation	

4.3 Phase II — Detailed Investigation

4.3.1 The Detailed Investigation phase is the on-site validation of the conceptual model. Through intrusive investigation, chemical testing and quantitative risk assessment, the Phase II study can confirm pollutant linkages and therefore, should also provide appropriate remediation options, if required.

Phase II – Detailed Investigation Report	Included
• Review previous site investigation contamination studies (desk-based or intrusive) or remediation works	[ ]
• Site investigation methodology, to include: * Justification of exploration locations * Locations of on site structures, above/below ground storage tanks etc * Sampling and analytical strategies * Borehole/trial pit logs. * Borehole / trial pit log locations	[ ]
• Results and findings of investigation, to include: * Ground conditions (soil and groundwater regimes, including made ground) * Discussion of soil/groundwater/surface water contamination (visual, olfactory, analytical)	[ ]
• Conceptual site model	[ ]
• Risk assessment – based on source-pathway-receptor	[ ]
• Details of the site specific risk assessment model selected and justification in its selection	[ ]
• Recommendations for remediation – based on proposed land use	[ ]
• Recommendations for further investigation if necessary	[ ]

4.4 Phase III — Remediation Strategy / Validation Report

4.4.1 The remediation phase of the process is split into two sections. Firstly the Remediation Statement is a document detailing the objectives, methodology and procedures of the proposed remediation works. This must be submitted for approval by the Council before any works commence. Secondly, following completion of the works, a Validation Report must be submitted demonstrating that the works have been carried out satisfactorily and remediation targets have been achieved.

Phase III – Remediation Statements (submit for approval prior to works)	Included
• Objectives of the remediation works	[ ]
• Details of the remedial works to be carried out, to include * Description of ground conditions (soil and groundwater) * Type, form and scale of contamination to be remediated * Remediation methodology * Site plans/drawings * Phasing of works and approximate timescales * Consents and licenses e.g. (Discharge consents, waste management licenses etc.) * Site management measures to protect neighbours.	[ ]
• Details on how works will be validated; ensuring remediation objectives are met, to include: * Sampling strategy * Use of on-site observations, visual/olfactory evidence * Chemical analysis * Proposed clean up standards (i.e. contaminant concentration)	[ ]

5.0 Frequently Asked Questions

When would the council put a planning condition on a site?
A condition may be attached when a site has a known history of contaminative uses or it is suspected that contamination may be present.

How can I find out if the land is potentially contaminated?
You can write and request for a site search to be undertaken by the Council's Contaminated Land Officer. Some local authorities have more information than others and a charge may be made for this information. However, if the search provides no further information this should not be taken to mean that the site is free from contamination. Other sources of information include the library service, county archives and the Internet. However, it is recommended that a consultant is employed to carry out a desktop study.

Will the Council recommend a Consultant?
No. However, you can refer to the Yellow Pages for advice

What will happen if I do not submit a desktop study with my application?
If you do not submit a detailed desktop study with your planning application, and your planning consent is granted it is likely that a planning condition will be attached requiring you to submit these details before you commence development of the site. The condition will not be discharged until the planning authority is satisfied with the information provided. In certain circumstances the Council may be unable to grant permission until a satisfactory site investigation has been carried out.

Who will the LPA consult with when I submit my planning application?
The LPA may consult various bodies including the Environment Agency (EA) and other sections within the Council including Environmental Health. Other consultees may include English Nature, English Heritage and the Sites and Monuments Record (SMR) at Nottinghamshire County Council in accordance with Planning Policy Guidance 16 (PPG 16), Archaeology and Planning, to protect the historic environment. They may also refer to PPS 9 Biodiversity and Geological Conservation PPG 15 Planning and Historic Environment.

When do the EA get involved in the planning process in relation to contaminated land?
The LPA may consult the EA on matters for which the agency has a regulatory responsibility such as:

- Where pollution of surface or groundwater is involved.
- Where the water environment is at risk of pollution.
- Where an application is within a flood-plain area.

Annex 1

Procedure to identify which form of risk assessment should accompany a planning application.

Table 1 – Sensitive Uses

Sensitivity	Example scenarios	Recommended requirements for a preliminary risk assessment
High	• New build residential use with or without private gardens; • Conversion of existing buildings to permanent residential use with private gardens; • Development of a school or children's day nurseries; • Introduction of a new food growing area such as allotments, market garden etc.	A quantitative risk assessment should be required in every case.
Moderately high	• New build involving non-residential enclosed buildings on potentially gas contaminated land.	A ground gases quantitative risk assessment should be required in every case.
Moderate	• Conversion of existing buildings to permanent residential use without private gardens; • Conversion of an existing building to a holiday rental property; • New build for non-residential use (other than on potentially gas-contaminated land). • Industrial/commercial major project	A quantitative risk assessment may exceptionally be required subject to professional judgement on a case-by case basis. Otherwise a preliminary risk assessment will be required, (desktop study site walkover and bill of quantities[1]).
Low	• Subdivision of an existing building with no introduction of gardens. • Industrial/commercial use • Conservatory and extension to residential property	A quantitative risk assessment will not be required unless a pre-existing hazard is known or suspected. Otherwise a preliminary risk assessment will be required, (desktop study, site walkover and bill of quantities).

Table 2 – Potentially contaminative uses

Potential Risk	Example contaminative uses and activities	Information to be submitted
High	• Smelters, foundries, steel works, metal processing & finishing works • Coal, mineral mining & processing, both deep mines and opencast • Heavy engineering & engineering works, e.g. car manufacture. • Military/defence related activities • Electrical & electronic equipment manufacture & repair • Gasworks, coal carbonisation plants, power stations • Oil refineries, petroleum storage & distribution sites • Manufacture & use of asbestos, cement, lime & gypsum • Manufacture of organic & inorganic chemicals, including pesticides, acids/alkalis, pharmaceuticals, solvents, paints etc • Rubber industry, including tyre manufacture • Munitions/explosives production, testing & storage sites • Glass making & ceramics manufacture • Textile industry, including tanning & dyestuffs • Paper & pulp manufacture, printing works & photographic processing • Timber treatment • Food processing industry & catering establishments • Railway depots, dockyards, garages, road haulage depots, airports • Landfill, storage & incineration of waste • Sewage works, farms, stables & kennels • Scrap yards and breakers yards • All types of laboratories • Power stations, electricity substations, gas works • Chemical and manufacturing plants - using/storing bulk liquid chemicals or discharging of effluent • Sewage farms and sewage treatment plants • Quarries or land which has been infilled with unknown fill. • Collieries	A quantitative risk assessment should be required but is dependent on sensitivity (see Section B). Reason: the LPA must be assured that remediation of the site is feasible before submission of the planning application.

	• Ministry of Defence sites • Storing and reprocessing scrap vehicles • Fuel storage facilities, garages and petrol forecourts • Abandoned mines, and downstream of such mines if in a flood zone • Abattoirs, animal waste processing & burial of diseased livestock	
Moderate	• Other industries and commercial uses not listed in DoE profiles • Engineering works • Urban soils (which are comprised of made ground) • Land with known fill • Hospitals • All works employing metal finishing processes -plating, paint spraying • Vehicle repair garages (no oil storage) • Works utilizing animal products, for example, tanneries • Radioactive substances used in industrial activities e.g. gas mantle production, luminising works • Agriculture – excessive use or spills of pesticides, herbicides, fungicides, sewage sludge & farm waste disposal • Dry cleaning premises • Naturally-occurring radioactivity, including radon • Naturally-occurring - metals and other substances • CO2 & CH4 production & emissions in coal mining areas, wetlands, peat moors or former wetlands • Spraying of herbicides and pesticides • Unregulated tipping activities • Domestic heating oil leaks • Railway Land (other than described in high risk category) • Gas mantle production, luminising works, dial manufacturers • Made ground • Cottage industry	A preliminary risk assessment, site walkover and bill of quantities[1], should be required but is dependent on sensitivity (see Section B). Reason: The LPA must be assured that any potential contamination has been properly researched before submission of the planning application.
Low	• Land which has been bombed • Burial sites & graveyards • Garages use for car parking	A preliminary risk assessment and site walkover required for potential contamination. Reason: The LPA must be assured that any potential contamination has been properly researched before submission of the planning application.

Table 3 - Validation Matrix

The above types of applications have been combined in the table below and at planning validation the applicant should provide the requirements set out in this table.

Sensitivity / Contaminative use	High	Moderate	Low
High & Moderately High	**GQRA**	**GQRA**	**PRA & BOQ**
Moderate	**GQRA**	**PRA & BOQ**	**PRA & BOQ**
Low	**PRA**	**PRA**	**PRA**

Key
GQRA: Generic Quantitative Risk Assessment: intrusive investigation
PRA: Preliminary Risk Assessment: desk-top study and site walkover
BOQ: Bill of Quantities: this outlines the scope and scale of the proposed site investigation

Recommended Guidance

Office of the Deputy Prime Minister Planning Policy Statement 23 (2004), Planning and Pollution Control HMSO, London or www.planningportal.gov.uk.

Office of the Deputy Prime Minister PPS 23 Annex 2: Development on Land Affected by Contamination. (2004) (2004) www.planningportal.gov.uk

CIRIA, *C659 - Assessing Risks Posed by Hazardous Ground Gases to Buildings,* Wilson et al, 2006

CIEH/LQM, Generic Assessment Criteria for Human Health Risk Assessment, Nathanail et al, Land Quality Press, 2006

Department for Environment Food and Rural Affairs and Environment Agency (2000) Model Procedures for the Management of Contaminated Land.

DEFRA, *Circular 01/2006. Environmental Protection Act 1990: Part 2A. Contaminated Land*. *September 2006,* The Stationery Office, 2006.

Environment Agency, *Cost Benefit Analysis in the Remediation of Contaminated Land Environment Agency Technical Record No.P316*, Environment Agency, 1999

NHBC & Environment Agency, *Guidance on the Protection of Housing on Contaminated Land*, Environment Agency R&D Publication (66), 2000

Contaminated Land Research Report 11, /www.environment-agency.gov.uk – publications ISBN 1844322955

Guidance for the Safe Development of Housing on Land Affected by Contamination. R&D Publication 66. Joint publication by Environment Agency and NHBC. ISBN 0-11-310177-5.

BS 10175:2001. British Standards Institution. (2001) Code of Practice for the Identification of Potentially Contaminated Land and its Investigation. London: BSI. ISBN 0 580 33090 7.