

# Contaminated Land Strategy

## EXECUTIVE SUMMARY

Under Part IIA of the Environmental Protection Act 1990 Nottingham City Council has a duty to inspect the land within its area to identify contaminated sites and act as an enforcing authority for contaminated land. The identification and safe re-use of contaminated land plays a key part in the sustainable development of the area.

A draft Contaminated Land Strategy was published for consultation with the relevant public organisations and the local community during April and May 2001. The Strategy has been amended accordingly and relevant comments have been incorporated into this final version. Once adopted, the strategy will be kept under periodic review.

During the inspection of land within its area the local Authority must undertake a formal risk assessment in accordance with established scientific principles. Nottingham City Council will adopt a two-stage approach to identify contaminated land:

Stage 1 - Risk Screening to prioritise sites for further inspection.

Stage 2 - Detailed Site Inspection risk assessment.

A four-year programme will be adopted. It is anticipated that the risk screening will be performed between April 2001 and April 2004 with the more detailed risk assessment following this between April 2004 and April 2005. Because of the potential for harm from contaminated sites there will be scope for flexibility within this approach. Sites requiring immediate attention will be dealt with when they arise.

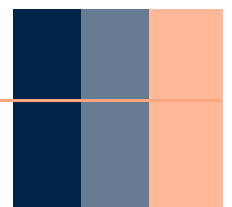
The Council's priorities in order of importance will be: -

- To protect human health.
- To protect controlled waters.
- To protect designated ecosystems.
- To prevent damage to property.
- To prevent any further land contamination.
- To encourage voluntary remediation.
- To encourage the re-use of land considered to be brownfield or contaminated.

Although the Local Authority will act as the lead regulator it will need to consult and form partnerships with other organisations such as the Environment Agency.

Nottingham City Council must maintain a public register of regulatory action in relation to contaminated land.

The Contaminated Land Strategy is available online at:  
[www.nottinghamcity.gov.uk/contaminated\\_land](http://www.nottinghamcity.gov.uk/contaminated_land)

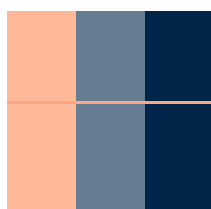




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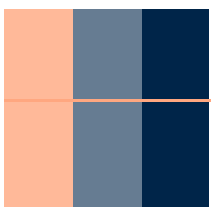
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# 1. INTRODUCTION

Industrial change and demographic shift during the 20th century resulted in the need for large-scale re-organisation of our towns and cities. Industries moved out or disappeared altogether, leaving large 'brownfield' gaps in our urban landscape. At the same time, changes in heating methods and the advent of the consumer society has had a significant effect on the type and volume of refuse it has been necessary to landfill. Inevitably, these changes have left behind a legacy of contaminated land, which in some cases may be harmful.

In April 2000, Part IIA of the Environmental Protection Act 1990 came into force, introducing a new regime for the regulation of contaminated land in England. The main purpose of Part IIA is to provide a legal structure for the identification of land posing unacceptable risks to human health or the environment, and for securing remediation of such land. It is based upon a set of principles which include 'suitable for use' standard of remediation, the 'polluter pays' principle for allocating liability and a 'risk based approach' to assessment of contaminated land.

The specific stated objectives of the new regime are:

- a) To improve the focus and transparency of the controls, ensuring authorities take a strategic approach to problems of land contamination;
- b) To enable all problems resulting from contamination to be handled as part of the same process (previously, separate regulatory action was needed to protect human health and to protect the water environment);
- c) To increase the consistency of approach taken by different authorities; and
- d) To provide a more tailored regulatory mechanism, including liability rules, better able to reflect the complexity and range of circumstances found on individual sites.

In addition to providing a more secure basis for direct regulatory action, the Government considers that the improved clarity and consistency of the new regime (in comparison with its predecessors), is also likely to encourage voluntary remediation. It is intended that companies responsible for contamination should assess the likely requirements of regulators and plan remediation in advance of regulatory action.

There will also be significant incentive to undertake voluntary remediation, in that the right to exemption to pay Landfill Tax will be removed once enforcement action has commenced.



The Government also considers the new regime will assist developers of contaminated land by reducing uncertainties about so called “residual liabilities”. In particular, it should:

- a) reinforce the ‘suitable for use approach’, enabling developers to design and implement appropriate and cost-effective remediation schemes as part of their redevelopment projects;
- b) clarify the circumstances in which future regulatory intervention might be necessary (for example, if the initial remediation scheme proved not to be effective in the long term); and
- c) set out the framework for statutory liabilities to pay for any further remediation should that be necessary.

## **1.1 Explanation of Terms**

The legislation and guidance is heavily punctuated with many complex and unusual terms. To assist in the interpretation of these an extensive glossary has been included in Appendix 1.

## **1.2 Development of the Strategy Document**

Part IIA of the Environmental Protection Act 1990 states at section 78B (1) that:

Every local authority shall cause its area to be inspected from time to time for the purpose of-

- (a) identifying contaminated land; and
- (b) enabling the authority to decide whether any such land is land which is required to be a special site (see Appendix 5).

The statutory guidance makes clear that in order to carry out this duty, authorities must produce a formal contaminated land strategy document, which requires that the approach should:

- be rational, ordered and efficient
- be proportionate to the seriousness of an actual or potential risk

- seek to ensure the most pressing and serious problems are located first
- ensure that resources are concentrated on investigating areas where the authority is most likely to identify contaminated land
- ensure that the local authority efficiently identifies requirements for the detailed inspection of particular areas of land.

In order to satisfy the far reaching objectives of the new regime it will be necessary to investigate land throughout the whole of the city and collate significant volumes of information. This will ultimately enable the Authority to make the sometimes difficult and inevitably complex decisions about such land relating to its condition, the risks it presents and who may be liable for it at law. This Strategy is the commencement of that process and seeks to express as clearly as possible how each stage will be addressed.

The consultation process has been carried out, the details of which can be found in Appendix 8.





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## 2. LOCAL OBJECTIVES

Nottingham City Council welcomes the introduction of Part IIA of The Environmental Protection Act 1990, which complements other Council plans and strategies. These include the Council's own Corporate Objectives, Local Agenda 21 Plan, Local Plan and the Nature Conservation Strategy.

### Corporate objectives

Corporate objectives, which are particularly relevant to this Strategy, are as follows: -

- Making Nottingham a safer city. This can be tackled in several ways, but in relation to contaminated land the benefits would be cleaning up areas posing a significant risk to health and the environment.
- Creating a more attractive place to live and work. Development and Environmental Services particularly support this objective and have made this a strategic priority.
- Improving the health of local people - through initiatives like the Council's Health Strategy (based on the Government White Paper 'Our Healthier Nation').
- Promoting education and lifelong learning.
- Creating employment opportunities for local people. We aim to target high unemployment areas and to provide training and employment opportunities including New Deal and Employment Zone.
- Maximising leisure and cultural opportunities.
- Encouraging local people to get involved.(1)

### Local Agenda 21 Plan: 'Changing Our City, Changing Ourselves'

This plan aims to work in harmony with all other Council Strategic Aims, in particular its core value of sustainability, the crux of LA21. Sustainability (or sustainable development) can be defined by the following statement:

'Sustainable development is development, which meets the needs of the present generation without compromising the ability of future generations to meet their own needs.'

LA21 addresses many issues, however its underlying principles will have a specific impact on the contaminated land strategy and vice versa. The five underlying principles of sustainability taken from the LA21 plan are:


1. A Better Quality of Life. This is a plan to improve the quality of life for local people. It recognises that in making real progress as a society, we have to do more than simply improving the standard of living.
2. The Environment. This is a plan to protect the local environment and to limit the damage, which Nottingham causes to the local and global environment
3. The Future. A plan for the longer-term future of Nottingham.
4. Equality and Equity. A plan for Nottingham aimed at improving the quality of life of the least well off and the most vulnerable. In addition, it is concerned with the fair distribution and use of resources.
5. Participation - getting people involved through a variety of schemes such as residents groups, local area partnerships etc.

Many of the aims are reflected in the corporate objectives outlined above.

### The Local Plan

The Local Plan was adopted by Nottingham City Council in October 1997. The plan covers the period up to 2006 but has been prepared to conform to the policies of the Nottinghamshire Structure Plan Review. It therefore includes provision for residential and employment land up to 2011. In essence the plan provides the foundations for decisions related to land use planning for the City of Nottingham. It makes provision for and targets the following:

- Environment
- Conservation
- Housing
- Recreation
- Community, Health and Education
- Economy
- Shopping
- Transportation



Much of the reclamation and redevelopment proposed is either underway or complete. Future plans will undoubtedly highlight more areas of the city in need of reclamation and redevelopment. The identification and safe re-use of contaminated land therefore plays a key part in the sustainable development of the area.

### **Nature Conservation Strategy 2000**

The Nature Conservation Strategy (NCS) is a five-year plan for the successful management of Nature Conservation throughout the city. The main aims of the NCS are as follows:

- Protection - to identify and protect existing valuable habitats.
- Access - to ensure that all citizens of Nottingham City have wildlife habitats and wildlife rich open space within easy reach of their homes.
- Involvement - to publicise nature conservation and promote a greater understanding of the natural environment.
- Enhancement - to provide an attractive environment which benefits flora and fauna through the sympathetic management of the environment.(2)

## 3. REGULATORY CONTEXT

Part IIA of the Environmental Protection Act 1990 provides a new regulatory framework for the identification and remediation of contaminated land by local authorities. The Contaminated Land (England) Regulations 2000 came into force on the 1st April 2000. The regime is based on the following basic principles: -

- identify contaminated land
- assess the risks
- determine the appropriate remediation requirements
- consider the costs
- establish who should pay
- implement a remediation scheme

Under the new provisions, the Council must 'cause its area to be inspected from time to time for the purpose of identifying contaminated land' (Section 78B). Where contaminated land is identified, the Council must manage the land in a suitable and strategic way by applying a risk based approach.

### 3.1 Role of Local Authorities

The statutory guidance states: "The local authority has the sole responsibility for determining whether any land appears to be contaminated land". In broad terms this role includes: -

- To cause the area to be inspected to identify potentially contaminated sites
- To determine whether any particular site is contaminated (by definition)
- To determine whether any such land should be designated a 'special site'
- To act as the enforcing authority for contaminated land not designated as a 'special site'



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## 3.2 Role of Environment Agency

The Environment Agency also has four main roles:

- To assist local authorities in identifying contaminated land (particularly where water pollution is involved)
- To provide site specific guidance to local authorities on contaminated land where requested
- To act as the enforcing authority for contaminated land designated as a 'special site', a definition of which can be found in Appendix 5.
- To publish periodic reports on contaminated land

Where the presence of contaminated land has been confirmed the enforcing authority must:-

- Establish who should bear responsibility for remediation
- Decide after consultation what must be done in the form of remediation and ensure it is effectively carried out
- Determine liability for the costs of the remedial works
- Maintain a public register of regulatory action in relation to contaminated land

## 3.3 Definition of Contaminated Land

Contaminated land is defined in section 78A(2) of Part IIA as: -

*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 -*

*Significant harm is being caused or there is a significant possibility of such harm being caused; or*

*Pollution of controlled waters is being, or is likely to be caused.*

Nottingham City Council has the sole responsibility for determining whether any land appears to be contaminated land - it cannot delegate this responsibility. This applies even where the Environment Agency has carried out an investigation on behalf of the Council.

### 3.4 Principles of Pollutant Linkages

Before land can be declared 'contaminated' by definition a **significant pollutant linkage** must be identified.



A **pollutant linkage** is the relationship between a **contaminant**, a **pathway** and a **receptor**. Unless all three elements of a pollutant linkage are identified land cannot be considered contaminated.

If, for example, an area of land is known to be badly affected with potentially dangerous contaminants (the source), it will not be considered of the highest priority if studies confirm there are no specified receptors within the area of influence and/or no pathway between the source and receptor exists. If there are receptors evident, the risk assessment process will seek to determine the likelihood of them coming together with a source at any time. If the chances of this are calculated as significant, and the consequences would result in significant harm or pollution of controlled waters, then a significant pollutant linkage will be said to exist and the land will be declared contaminated land by definition.

Consequently, the definition of contaminated land does not include all land where contamination may be present.

For the purposes of this document: -

- I. source (contaminant) means a substance situated in, on or under the land with the potential to cause harm or to cause pollution of controlled waters
- II. pathway means one or more routes or means by, or through, which a receptor is being exposed to, or affected by, a contaminant, or could be so exposed or affected.
- III. receptor (target) means either a living organism, a group of organisms, an ecological system or a piece of property which is being, or is capable of being harmed by a contaminant, or controlled waters which are being, or could be, polluted by a contaminant. Receptors are defined by the Act and are listed on the next page:-



- a) **Human beings**
- b) **Eco systems:**
  - Areas of special scientific interest
  - Wildlife & Countryside Act 1981 section 28
  - National / local nature reserves
  - Wildlife & Countryside Act 1981 section 35 / National Parks & Access to the Countryside Act 1949 section 21
  - Marine nature reserves
  - Wildlife & Countryside Act 1981 section 36
  - Areas for the special protection of birds
  - Wildlife & Countryside Act 1981 section 3
  - Special areas of conservation & special protection areas
  - Conservation (Natural Habitats etc) Regulations 1994 regulation 10
  - Any candidate special areas of conservation or potential special protection areas
  - Any habitat or site afforded planning policy protection
  - Planning Policy Guidance Note 9 - Nature Conservation, para 13
- c) **Property:**
  - Buildings (including below ground)
  - Ancient monuments
  - All crops including timber
  - Produce grown domestically or on allotments for consumption
  - Livestock
  - Other owned or domesticated animals
  - Wild game subject to shooting or fishing rights
- d) **Water:**
  - Territorial seawater (to three miles)
  - Coastal waters
  - Inland fresh waters (rivers, streams, lakes, including the bottom / bed if dry)
  - Ground Waters
  - Water Resources Act 1991 s104

In summary, for contaminated land to exist the following are pre-requisites:

- i) One or more sources (contaminants)
- ii) One or more specified receptors
- iii) At least one significant pollutant linkage between source and receptor

- iv) A high possibility that the pollutant linkage will result in significant harm to one of the specified receptors, or pollution of controlled waters.

### **3.5 Principles of Risk Assessment**

The statutory guidance promotes a risk-based approach to dealing with potentially contaminated land. Once the Council become aware of the (possible) existence of a pollutant linkage they must, in accordance with their prioritisation procedure, commence the risk assessment process.

The need for and extent of any remediation is determined from an assessment of the risks posed to human health and the environment, whilst taking into account the intended use of the site. This 'suitable for use' approach acknowledges that the risk which is presented by a level of contamination will largely be dependent upon the use of the land in addition to factors such as the geology of the site.

For the purposes of the guidance, risk is defined as the combination of:

- a) probability, or frequency, of occurrence of a defined hazard; and
- b) magnitude of the consequences.

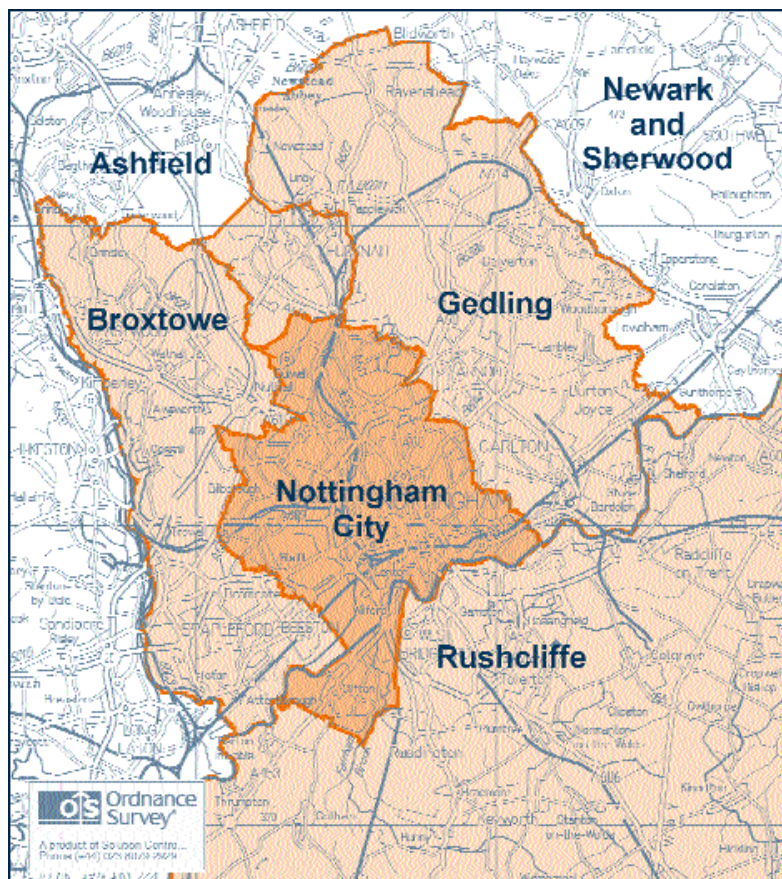
The aim of this type of approach is to protect human health and the environment, without unnecessarily wasting finances on the clean up of contamination. Subsequently, risks need to be assessed on a site-by-site basis.



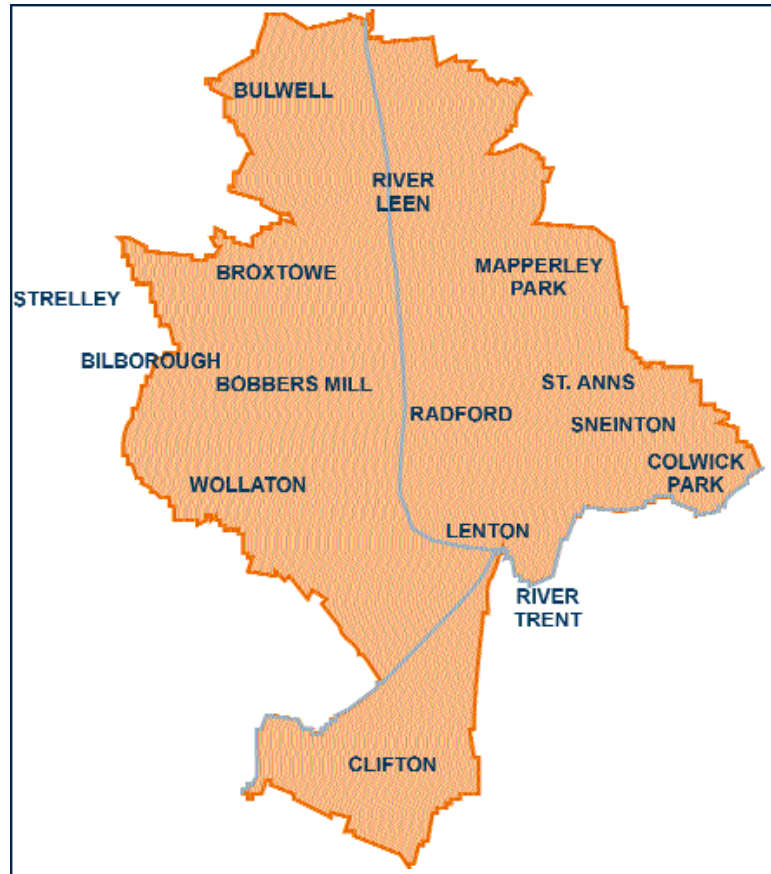
## 4. LOCAL CHARACTERISTICS

### 4.1 Geographical Area of the City of Nottingham

Nottingham is situated in the south-west of Nottinghamshire, bordered by a number of local authority areas (see Figure 1 below).




The western side of the city is close to the M1 and Nottingham is serviced by both orbital and radial roads. The River Leen runs through the city from north to south while the Trent runs from west to east along the city's southern edge. The land rises from the River Trent valley basin in the south to form a ridge that runs from Lenton Sands to Mapperley. There are a number of lakes, the largest of which are at Wollaton Park and Colwick Park (see Figure 2 on the next page of Nottingham showing River Leen, Mapperley etc).



The population of Nottingham is approximately 284,300 (estimated in 1999) which is almost a third of the total for the County. The population density varies quite considerably throughout the city centre with areas of low population towards the city boundaries. The area of the city is around 7,461 hectares and it is estimated that up to 40% of this land is owned by Nottingham City Council.(3)

Land uses within Nottingham: -

- 31% residential land use, the majority of this being domestic gardens
- 22% institutions, factories and businesses.
- 9-10% natural habitat
- 15% tended open space
- 5-6% farmland including arable land, pasture and allotments
- Remaining land use is made up of railways, roads, vehicle parks/lock-ups, footways and derelict land/buildings.(4)



Nottingham is constrained by areas of the greenbelt. These areas include land surrounding Clifton in the south, Colwick Country Park to the east, an area in Bulwell to the north and an area around Chilwell Dam Farm to the west.

## **4.2 Redevelopment History and Controls**

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The City Council has for many years carried out a review of historical maps and other information to identify areas of land where the past use may have resulted in contamination of the land. Where this is suspected, an investigation is often required as part of a planning permission. When development proceeds, remedial works are often necessary to ensure that the contamination is reduced to a level which is 'suitable for use'. The planning condition regarding contamination on a site will not be discharged until Nottingham City Council is satisfied that the site has been remediated to its requirements.

A number of sites within Nottingham have undergone remediation without development taking place (e.g. Broxtowe Park). In these situations it was found that contaminants were migrating, affecting people and properties. Funding for remediation has been obtained and works are on going to rectify these problems.

## **4.3 Protected Locations**

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There are currently 118 identified Sites of Importance for Nature Conservation (SINC) within Nottingham. These sites include three statutory Sites of Special Scientific Interest (SSSIs); Holme Pit (Clifton), Colwick Cutting and Seller's Wood (Bulwell), two statutory Local Nature Reserves (LNRs); Martin's Pond (Wollaton) (4 hectares (Ha)) and Seller's Wood (14 Ha).(3)

## **4.4 Key Property Types**

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Much of the city centre of Nottingham was built on sandstone, which has been extensively excavated for caves since medieval times. Subsequently, there is a great deal of historic and architectural heritage within Nottingham, including:

- 28 Building Conservation Areas (under section 69 of the Listed Building and Conservation Areas Act 1990)

- Approximately 800 Listed Buildings
- 8 Scheduled Ancient Monuments.(3)

The city is substantially built up and has a lengthy and varied history including considerable industrial development. It has not, however, inherited an industrial wasteland as a result of economic change, as vacant areas such as power stations, railway lands and colliery sites have largely undergone redevelopment.

Nevertheless, the industrial past of the city has still led to a legacy of contamination.

The city was dominated by the textile industry throughout the 18th and early 19th century, although this has now reduced significantly. Industrial activity is quite diverse at present, ranging from some heavy industry through to biotechnology. Mining and mineral extraction represents an industry of some historic importance for Nottingham, with many former collieries and quarries located throughout the city.

#### **4.5 Broad Geological/Hydrogeological Characteristics**

The oldest deposits in the area are the Coal Measures. These consist of interbedded mudstone, siltstone and sandstone with common coal seams. They outcrop to the west of the city centre and underlie much of Nottingham at varying depths. Mining and exploitation of coal at depth has been performed in various locations in the city.

Rocks in the Nottingham area generally dip gently from the northwest to the southeast. In the north west of the city the older deposits of Magnesium Limestone and Marl of the Permian period outcrop.

Further southeast towards the city centre the Sherwood Sandstone (formerly Bunter Sandstone) is exposed. A good example of these Triassic deposits is the Castle Rock, which is formed of the Nottingham Castle Sandstone Formation. This deposit is overlain by the Triassic Sneinton Formation (formerly Keuper Waterstones) to the east and the Mercia Mudstones (formerly Keuper Marl) to the east and south.

Superficial deposits include an area of alluvial deposits, which may include sand and gravel and/or clay associated with the River Trent flood plain and a smaller area associated with the flood banks of the River Leen.



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## **Mines and Mineral Extraction**

Most of the different types of geological deposit within Nottingham have been economically exploited to some extent. The Coal Measures underlie Nottingham at varying depths throughout the city; extraction of coal represents an industry of historic importance for the area. There were several collieries within Nottingham, including Wollaton, Clifton and Babbington Collieries.

Mudstone was quarried in areas such as Clifton and Mapperley. Sandstone has been quarried in areas such as St Anns. Bobbers Mill Quarry exploited local deposits for sand. In Strelley and Bulwell magnesium limestone has been quarried for building stone. Marl has been quarried in the Bulwell area of Nottingham for brick clay and for agricultural purposes to add to sandy soil.

Many of the former quarries and colliery pits were used as landfill, which represents a particular problem for Nottingham. A register of landfill sites was only introduced following The Control of Pollution Act 1974. However, former landfill sites were not included. These sites represent a particular area of concern in relation to contaminated land because of the risk to human health and controlled water from landfill gas and leachate.  
(2)(5)

## **4.6 Key Water Resource/Protection Issues**

### **Groundwater**

As much as 80% of Nottinghamshire's drinking water is obtained from a major groundwater aquifer located in the Sherwood Sandstone. This rock unit outcrops over a large proportion of the city, mainly the central and eastern areas. Smaller outcrops of Magnesium Limestone occur in the northwest; this is also classified as a major aquifer, although the yield is considerably less.

Minor aquifers occur to the west and east of the city centre. Deposits of recent geological age associated with the River Trent flood plain (and to a lesser extent the River Leen) underlie large areas of Nottingham and are also aquifers of minor importance. (5)

Mercia Mudstone outcrops over an area to the east of the city centre towards the city boundary and beneath most of Clifton. These areas are classified as non-aquifers due to the low permeability of the deposits.

### **Soil Leaching Potential**

The majority of the soil types of Nottingham are classified as soils of high leaching potential. Soils in urban areas are unclassified and given a high leaching potential as a precautionary measure. (6) (7)

### **Abstraction Points**

There are 29 surface and ground water abstraction points in Nottingham, licensed by the Environment Agency. The groundwater source protection zones designate zones around public water supply abstractions and other sensitive supplies that signal risk to the groundwater source they protect. The Environment Agency has produced maps of these areas and much of Nottingham falls within the source protection zones. (6) (7)



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## 5. STRATEGY AIMS AND OBJECTIVES

### 5.1 Aims of the Strategy

The aims of Nottingham City Council's Strategy to deal with land contamination are:

- to identify and remove unacceptable risks to human health and the environment;
- to seek to bring damaged land back into beneficial use; and
- to seek to ensure that the cost burdens faced by individuals, companies and society as a whole are proportionate, manageable and economically sustainable.

### 5.2 Objectives of the Strategy

- To ensure compliance with and enforcement of Part IIA of The Environmental Protection Act 1990 (inserted by Section 57 of the Environment Act 1995).
- To ensure that where redevelopment of land takes place within the City, the planning process deals effectively with any land contamination so that the land is suitable for its intended use.
- To address the liability issues associated with the Council's existing and former land holdings and avoid any new liability associated with land transactions.
- To be proportionate to the seriousness of any actual or potential risk.
- To ensure that the most pressing and serious problems are located first by ensuring that resources are concentrated on investigating areas where the Council is most likely to identify contaminated land.

## 6. NOTTINGHAM CITY COUNCIL PRIORITY ACTIONS AND TIMESCALES

Throughout the process of prioritisation and inspection, if any sites are strongly suspected of causing significant harm, or if any site is referred by the Environment Agency for determination as a “special site”, then these will take priority and be dealt with as a matter of urgency.

The work carried out to date by Nottingham City Council has focused on researching Ordnance Survey (OS) mapping and other sources of information. This has been carried out in an attempt to identify where potentially contaminative uses have taken place, i.e. potential sources of contamination have been identified.

This information has been primarily used by the Pollution Control Section to provide advice and information for the redevelopment of brownfield sites. This arrangement will continue in parallel with the contaminated land regime.

### 6.1 Priorities

Nottingham City Council intends to adopt a two-stage approach to identifying contaminated land: -

Stage 1 - Risk Screening to prioritise sites for further inspection

Stage 2 - Detailed Site Inspection to assess pollutant linkages.

The assessments at the risk screening stage are made on a limited amount of basic data and information, such as old surveys, maps, geological information etc. As more knowledge of the site is obtained, these assessments will be revised and their priority may change.

The assessment of a site as high priority does not necessarily infer the existence of a significant risk to one of the specified receptors, but it does identify the need for priority assessment for a detailed risk assessment.

In an attempt to ensure that the most pressing and serious problems are located first, it is intended initially to assess those sites which have been subject to landfilling activities and areas where the most heavily contaminative industries have been located. These will present the greatest risk.





The Council's priorities in order of importance will be: -

- To protect human health.
- To protect controlled waters.
- To protect designated ecosystems.
- To prevent damage to property.
- To prevent any further land contamination.
- To encourage voluntary remediation.
- To encourage the re-use of land considered to be brownfield or contaminated.

## **6.2 Timescales**

The inspection and strategy process has been broken down into a number of stages, the details of which can be found in Appendix 2.

## 7. PROCEDURES

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### 7.1 Internal Management Arrangements

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The primary regulators in respect of these new powers are **local authorities**. In Nottingham, the Strategy will be under the control of the Director of Development and Environmental Services and the Environment, Planning and Transportation Strategic Board. It should be noted that this is a complex and demanding enforcement role, which will be carried out in accordance with the Council's enforcement policy and the Cabinet Office Enforcement Concordat (March 1998).

The Pollution Control Section, within the Development and Environmental Services Department, has responsibility for the implementation of the contaminated land regime under Part IIA of the Environmental Protection Act 1990.

The Pollution Control Section can be contacted at:

Development and Environmental Services Department,  
Nottingham City Council,  
Lawrence House,  
Talbot Street,  
Nottingham  
NG1 5NT

Tel: 0115 915 6410

Fax: 0115 915 6145

e-mail: [pollution.control@nottinghamcity.gov.uk](mailto:pollution.control@nottinghamcity.gov.uk)

### 7.2 Outline of the Statutory Procedure


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#### 7.2.1 Determining land is contaminated

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There are four possible grounds for determining land as contaminated:

- a) Significant harm is being caused

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- b) There is a significant possibility of significant harm being caused
  - c) Pollution of controlled waters is being caused
  - d) Pollution of controlled waters is likely to be caused

In making any determination, Nottingham City Council will take all relevant information into account, carry out appropriate scientific assessments, and act in accordance with the statutory guidance. The determination will identify all three elements of pollutant linkage and explain their significance.

### **7.2.2 Where the significance of a pollutant linkage cannot be adequately determined**

Situations may arise where, on the information available, it is not possible to determine whether a pollutant linkage is significant in accordance with the statutory guidance. In such cases, the Council will determine that, on the balance of probabilities, it would seem the land does not fall within the statutory definition of contaminated land, but the situation will be kept under review and reopened at any time should new information become available.

Similarly, inspection may identify contamination that would form a significant pollutant linkage should new receptors be introduced. In such circumstances this information will be carefully recorded and the site monitored when the introduction of relevant new receptors seems likely. Should such a site be identified for future development the information obtained during the investigation will be made available to the planning officer and the developer.

### **7.2.3 Land which may be a special site (see Appendix 5)**

Where the Council are aware that land it intends to investigate would, if declared contaminated land, be a 'special site', it will notify the Environment Agency in writing, requesting any information it may have on the land and the likelihood of pollutant linkages.

Where the Environment Agency (or their agents) wish to carry out formal investigation on behalf of the Council, their officers will need to be appointed as "suitable persons", in accordance with Appendix 7. The Environment Agency does not have the power under Part IIA to investigate land, which may be contaminated land, without the authorisation of the Council.

### **7.2.4 Powers of entry**

Statutory powers of entry are conferred on the Council to enable it to carry out its functions under Part IIA. These are also considered in Appendix 7. There are no circumstances in

which the Council will use these powers to obtain information about the condition of land, where: -

- It can obtain the information from third parties without the need for entering the site; or
- A person offers to provide the information within a reasonable and specified time, and does so.

### **7.2.5 Written record of determination and formal notification**

Once an area of land has been declared contaminated by statutory definition, the Council will prepare a written record to include:


- a) a description of the pollutant linkage(s) confirmed, including a conceptual model;
- b) a summary of the evidence which confirms the existence of the pollutant linkage(s);
- c) a summary of the risk assessment(s) upon which the pollutant linkage(s) were considered to be significant;
- d) a summary of the way the requirements of the statutory guidance were satisfied.

The Council will then formally notify in writing all relevant parties that the land has been declared contaminated, to include:

- a) the owner(s)
- b) the occupier(s)
- c) those liable for remediation ('appropriate persons')
- d) the Environment Agency

At the notification stage, it may not be possible to identify all the relevant parties, particularly the appropriate persons. The Council will, however, act on the best information available to it at the time and keep the situation continually under review as more information comes to light.

If the Council is of the opinion that the contaminated land is a 'special site' (see Appendix 5), it will also inform the Environment Agency of that decision. The Environment Agency will then consider whether it agrees that the land should form a 'special site'. If it does not agree, it will notify the Council and the Secretary of State within 21 days with a comprehensive statement explaining its reasons. The Council will then refer the decision to the Secretary of State.



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If the Environment Agency agrees with Council, or it fails to notify the Council that it disagrees within 21 days, the land will be designated a special site. The responsibility for securing remediation then passes to the Environment Agency, although the Council must complete the formal notification process.

The legislation and statutory guidance has been designed to try to encourage *voluntary remediation* (without the need for enforcement action). The formal notification procedure commences the process of consultation on what remediation might be most appropriate. To aid this process the Council will therefore provide as much information to the relevant parties as possible, including, where available: -

- a) a copy of the written record of determination
- b) copies of site investigation reports (or details of their availability)
- c) an explanation of why the appropriate persons have been chosen
- d) details of all other parties notified.

It may be at this stage that the Council will need further information on the condition of the site to characterise any significant pollutant linkages identified. If that is the case, an informal attempt will be made to obtain this information from the appropriate persons already identified.

### **7.3 Liability**

Land may be declared contaminated upon the identification of only one significant pollutant linkage. Full liability can not therefore be determined until all significant pollutant linkages on the site have been. When all significant pollutant linkages have been identified the procedure relating to the apportionment of liability must commence. This has five distinct stages as follows: -

- i) Identifying potential appropriate persons and liability groups
- ii) Characterising remediation actions
- iii) Attributing responsibility to liability groups
- iv) Excluding members of liability groups
- v) Apportioning liability between members of a liability group.

These procedures are complex and cumbersome. The process commences with the establishment of liability groups. All appropriate persons for any one linkage are a 'liability group'. These may be class 'A' or class 'B' persons.

Appropriate persons - Class 'A' - These are generally speaking the polluters, but also included are persons who "knowingly permit". This includes developers who leave contamination on a site, which subsequently results in the land being declared contaminated.

Appropriate persons- Class 'B' - Where no class 'A' persons can be found, liability reverts to the owner or the occupier. These are known as Class 'B' persons.

The Council will make all reasonable enquiries to identify Class 'A' persons before liability reverts to owners or occupiers.

The matter of appropriate persons must be considered for each significant pollutant linkage. Therefore, where a site has had a series of contaminative uses over the years, each significant pollutant linkage will be identified separately and liability considered for each.


### **7.3.1 Apportionment of costs**

Generally speaking, the members of a liability group will have the total costs falling on the group as a whole apportioned between them. It may also be necessary to apportion costs between liability groups. There are three basic principles, which apply to exclusion and apportionment tests:

- i) The financial circumstances of those concerned have **no relevance**;
- ii) The Council must consult persons affected to obtain information (on a reasonable basis having regard to the cost). If someone is seeking to establish exclusion or influence an apportionment to their benefit then the burden of providing the Council supporting information lies with them.
- iii) Where there are agreements between appropriate persons, the local authority has to give effect to these agreements.

### **7.3.2 Limitations on costs to be born by appropriate persons**

There are six tests specified to identify Class 'A' groups who should be excluded from liability. These will be applied in sequence and separately for each pollutant linkage. The exclusion of Class 'B' persons is much less complex, the single test merely excludes those who do not have an interest in the capital value of the land. Tenants are therefore excluded.



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When the Council has apportioned the costs of each remediation action, it will consider whether any of those liable may not be able to afford it before serving remediation notices. If, after taking into consideration the statutory guidance, it decides that one or more of the parties could not, it will not serve a remediation notice on any of the parties. The Council will, instead, consider carrying out the work itself and produce and publish a remediation statement.

## **7.4 The Enforcement Process**

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Before remediation notices are served, the extensive consultation process will be completed and ample encouragement given to arrive at an informal solution. The Council will do all in its power to consult the appropriate person(s), owners, occupiers etc about their views on the state of the land.

This could be a difficult and most protracted process and cause delay. Where a housing estate is affected, for example, it would be reasonable to expect house owners, land owners, developers, lenders, insurers, surveyors, geotechnical engineers, residents' groups etc, all to have differing views depending on their position.

Remediation notices are served only as a last resort (not withstanding urgent cases), and then only after this lengthy consultation process has been exhausted. Notices will be authorised after two tests are satisfied: -

- That the remediation actions will not be carried out otherwise.
- That the Council has no power to carry out the work itself.

If these are met the Council will serve a remediation notice on each appropriate person. The remediation notice cannot be served less than three months after formal notification that the land is contaminated, unless urgent action is deemed necessary (where there is imminent risk of serious harm).

### **7.4.1 Specifying remediation**

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Officers of the Pollution Control Section will specify what remediation measures are to be carried out in the remediation notice. These will be both appropriate and cost effective, employing what the statutory guidance terms 'best practicable techniques'. The aim of the remediation will be to ensure that the land is no longer contaminated, taking the shortest or most sustainable and economical route. This means that in most cases attention will be focussed on the pathway, rather than the contaminant or receptor.

The “reasonableness” of the requirements are, however, paramount - a concept which is considered at some length in the guidance. It is determined in relation to the cost of carrying out the remediation against the cost of failing to do so (i.e. the costs, or potential costs, resulting from the continuing pollution).

A series of consultations must also be carried out at each stage with the ultimate aim of securing voluntary remediation (without the need for enforcement action). Where the land does fall within the definition of a ‘special site’, the Environment Agency become the enforcing authority. In these cases however, the local authority must still make the determination and formally notify the interested parties.

What may and may not constitute the various categories of harm is described in the statutory guidance. Controlled waters include inland freshwater, groundwater and coastal waters (see Appendix 6).

Where the local authority are satisfied that significant harm is occurring, or there is a significant possibility of such harm, or pollution of controlled waters, they must declare that a significant pollutant linkage exists and that the land is therefore contaminated land by definition. In every case where the land does not fall within the category of a ‘special site’, they must commence regulatory action.

In certain circumstances the local authority may carry out the remedial works itself. In general terms it has this power where: -

- Urgent action is necessary (see section 7.4.2 and Appendix 7)
- There is no appropriate person
- The authority is precluded from taking enforcement action (specified reasons)
- The authority agrees to carry out the works on behalf of an appropriate person
- A remediation notice has not been complied with.

In non-urgent cases where a remediation notice is necessary and all the required consultations have been completed, the notice must be served on the appropriate person(s) no sooner than three months after the contaminated land has been determined or declared a ‘special site’. The notice itself may require further investigation of the site and as a result more pollutant linkages may be identified. Where this is the case, the enforcing authority must go through the same processes again to identify appropriate persons and remedial actions.

The enforcing authority must at all times consider the potential for hardship and undertake a cost benefit analysis in respect of all remedial actions. Where remedial actions are undertaken in default of a notice, the enforcing authority has the power to recover costs in certain circumstances.





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## **7.4.2 Urgent action**

Urgent action must be authorised where the Council is satisfied that there is imminent danger of serious harm or serious pollution of controlled waters being caused as a result of contaminated land. In such circumstances, the procedures identified in the statutory guidance will be followed, which may involve forced entry into the premises.

The terms “imminent” and “serious” are not defined; local authorities are advised to use the normal meaning of the words. There is, however, guidance on what may constitute “seriousness” when assessing the reasonableness of remediation.

The Council will undertake the remediation in urgent cases where it is the enforcing authority if it is of the opinion that the risk would not be mitigated by enforcement action. In the case of a ‘special site’, the Council will declare the land contaminated land in accordance with the statutory procedure and notify the Environment Agency, who will then be responsible for the remediation.

In appropriate cases the Council will seek to recover costs of remediation works it has completed.

## **7.4.3 Land under ownership of the local authority**

Where land owned by a local authority is found to be contaminated land, unless a ‘special site’, there will be no enforcing authority. Local Councils must, however, carry out their duties as though they were the enforcing authority, undertake the same consultations, assessments and seek appropriate remedial works as necessary.

In order to establish the Council’s interests, it will be necessary to ascertain areas of land which: -

- are or have been owned by the Council
- are or have been occupied by the Council
- are areas where the Council may be the “appropriate person” responsible for remediation under the legislation.

To this end, a formal relationship must be maintained between the Department responsible for enforcement of the new regime and that responsible for Council owned land. All information relating to the identification, assessment and remediation of Council owned land must be fully reported to satisfy the needs for transparency. Also see section 10.

#### 7.4.4 Remediation by the Local Authority

Before the Council can serve a remediation notice, it will first determine whether it has the power to carry out any of the remediation actions itself. There are five specified circumstances where this may be the case: -

- Where urgent action is required
- Where no appropriate person can be found
- Where one or more appropriate persons are excluded (on grounds of hardship)
- Where the local authority has made an agreement with the appropriate person(s) that it should carry out the remediation
- In default of a remediation notice.

#### 7.4.5 Orphan linkages

Orphan sites are those where it is not possible after 'reasonable' enquiries, to find anyone responsible for them (Class A or Class B persons), or where persons can be found but they are exempted from liability for specified reasons. These are described in the statutory guidance as '**orphan linkages**'.

Exemptions apply where: -

- The land is contaminated by reason of pollution of controlled waters **only** and no class A persons can be found (this means Class B persons **cannot** be held liable for polluting water from land).
- The land is contaminated by reason of the escape of a pollutant from one piece of land to another and no class A persons can be found.
- The land is contaminated land by reason of pollution of controlled waters from an abandoned mine.
- The person was acting in a 'relevant capacity' (insolvency practitioner / official receiver etc).

In such cases, the enforcing authority may bear the cost of the remediation in accordance with the Secretary of State's guidance.



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## 8. INFORMATION COLLECTION

In order to assess the potential for land to be identified as contaminated land, a large volume of information is required on potential sources, pathways and receptors. Consideration will also be given to the existence of sites and receptors which, if found to be contaminated land, would be designated special sites (see Appendix 5).

This may involve obtaining and undertaking detailed inspection of data from sources such as:

- Statutory bodies (such as the Environment Agency, Department of the Environment Food & Rural Affairs (DEFRA), Health & Safety Executive, Coal Authority)
- Records held by Nottingham City Council, County Council, Library Services
- Current and historical mapping
- Mapping of geology, hydro-geology and hydrology
- Aerial Photography
- Developers
- Previous occupiers
- and others

Details of information for sources and receptors are listed below.

### 8.1 Potential Sources of Contamination

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a) **Industrial History**

A list of potentially contaminative uses is given in Appendix 4. The first step in the process of identifying potentially contaminated sites will be to closely examine historical data in the form of old Ordnance Survey plans and photographs from the early part of the century to the present day. These will be obtained from this Council's archives, local studies library and County Archive office. A lot of past industry will also still be within recent memory, so local knowledge will be important at this stage. To aid this process the Local Area Committee will be consulted. Some sites identified by this process may be of significance for the industrial archaeology of the city.

- b) **Current Industry**  
The present industrial areas of the city are potential sources of contamination and these will be inspected in accordance with the statutory guidance to establish whether there is a potential of contamination to exist, and, if there is, whether it is controlled by another agency.
- c) **Environmental Protection Act 1990 Part I**  
(‘Part B’ processes authorised for air pollution control by this Council).  
There are currently over 60 processes authorised by the Council under Part I of the Act, and a further 40 petrol filling stations. These include processes such as vehicle respraying operations, timber treatment and other operations which require controls on the emission of certain substances to the atmosphere. Many of these processes have the potential to pollute the land, but there are no other statutory methods of control.
- d) **Environmental Protection Act 1990 Part I**  
(‘Part A’ processes authorised for integrated pollution control (IPC) by the Environment Agency). There are currently 5 processes authorised by the Environment Agency under Part I of the Act. The IPC regime should control unauthorised discharges to land, but their presence will need to be noted and the potential for long term pollution assessed, particularly post closure.
- e) **Hazardous substances**  
This Council is a Hazardous Substances Authority for the purposes of the Planning (Hazardous Substances) Act 1990 and the Planning (Hazardous Substances) Regulations 1992. This legislation requires consent to allow the presence on land of hazardous substances above a specified quantity. These regulations were recently amended by the Planning (Control of Major Accident Hazards) Regulations 1999 (SI 981) to take account of the new COMAH Regulations (see f below). There are currently 3 authorised sites in the city. A register is maintained for this purpose by The Director of Development and Environmental Services.
- f) **COMAH sites**  
The Control of Major Accident Hazards Regulations 1999 (SI 743) are enforced by the Environment Agency and Health & Safety Executive (joint competent authority) to control both on and off site risks from industries with a high potential for disaster from dangerous substances (flammable, toxic or explosive). There are currently 3 sites within the city.
- g) It should be noted that all sites notified to the HSE under the Notification of Installations Handling Hazardous Substances Regulations 1982 (NIHHS sites) and COMAH sites, will be held on the hazardous substances register, so there should be no need to consult with the HSE on their location.



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h) **Explosives**

Explosives are not directly covered by the hazardous substances regulations, but are controlled by the Health & Safety Executive (HSE) under licences issued under the Explosives Act 1875. Any licensed sites will be identified.

i) **Current Landfill and Waste Processing Sites**

These are licensed by the Environment Agency under the provisions of Part II of the Environmental Protection Act 1990. Details of all these sites have already been provided by the Agency for this purpose.

j) **Closed Landfill Sites**

Closed landfill sites are a potentially significant source of risk, especially those that operated before the licensing requirements of the Control of Pollution Act 1974. All closed landfills in the city will be identified and their association with any specified receptors considered in detail. Information on such sites may be available in the Council's planning and building control files.

k) **Sewage works and land used for the disposal of sewage sludge**

Land dedicated for the disposal of sewage sludge is notified to the Environment Agency under the Sludge (Use in Agriculture) Regulations 1989. This land, together with all operating and redundant sewage works, will be identified and assessed.

l) **Mines and Minerals Extraction**

The geology of the area has resulted in large areas being used for the extraction of minerals. Many of the resulting quarries were then filled with refuse or other materials. These can present a particular risk to water resources. An attempt will be made to identify all past quarrying sites and assess the risk they present.

m) **Waste or Derelict Land**

This land, often owned by the utilities, railways or local authorities, is left seemingly abandoned because it has no particular use or is difficult to access. These areas can accumulate unwanted materials and can be used to dispose of wastes and effluents illegally.

n) **Ministry of Defence Land**

Defence Agencies will be consulted on areas within the city as necessary. These areas will be investigated in association with the Environment Agency as required, in accordance with the statutory guidance (see Appendix 5).

o) **Previously Developed Contaminated Sites**

The inspection of the city will identify many potentially contaminated sites, which have been developed over the years. In some cases the methods and extent of remediation may be unknown. In others it may be known, but the remediation suspected of being inadequate.

As mentioned above, a more comprehensive list of previous uses considered potentially contaminative, are listed in Appendix 4 for information. Any site with the potential to cause pollution will be identified at this preliminary stage.

## 8.2 Potential Specified Receptors

- a) **Human**

The present population of the city is 284,300 (estimated in 1999) distributed throughout the conurbation of Nottingham. Human receptors will therefore be present to some degree at almost any location within the city. The potential for persons either living on or frequenting a potentially contaminated site will be considered in every case, but priority will be given to sites with infants.
- b) **Property (Buildings)**

All buildings and underground services (within the footprint of the building) are potential receptors and will be considered in every case where contamination and buildings exist.
- c) **Property (Ancient Monuments and Listed Buildings)**

Property listed by English Heritage, including Scheduled Ancient Monuments, Listed Buildings and new Scheduled Ancient Monuments created through English Heritage's Monuments Protection Programme will be specifically identified as part of the strategy and the potential impact of contaminants considered. A full list of these premises/structures will be included as part of the review process.
- d) **Property (Timber Crops)**

Crop failure as a result of contamination is most unlikely except perhaps where trees have been planted on contaminated land as part of a remediation programme.
- e) **Property (Home Grown Produce)**

There are many acres of allotments within the city and these will all be identified and their potential for contamination considered as a result of previous uses or activities. Similarly any domestic gardens likely to be contaminated will be identified and assessed.
- f) **Property (Agricultural Livestock, Game and Other Owned Animals)**

Being a largely urban area, the presence of livestock in an area will not be specifically identified but taken into consideration as necessary.

g) **Ecological Receptors**

All receptors listed above will be identified as part of the inspection strategy. There are several specified sites including Sites of Special Scientific Interest (SSSi's) and other areas of ecological importance. Significant impact of contamination is unlikely, but all areas will be identified, examined and any risks carefully quantified with English Nature and the Environment Agency. Some protected species may colonise contaminated land sites and legal constraints may affect remediation in some circumstances.

h) **Water (Aquifers)**

The area relies heavily on the principal groundwater aquifer located in the Sherwood Sandstone. All aquifers will be specifically identified with their location, depth and vulnerability. Potential risks from identified sources of contamination will be considered carefully with the Environment Agency.

i) **Water (Public Water Supplies)**

All public water supply abstraction points will be identified with their location, depth, strata/surface water supply they draw from and volume of supply.

j) **Water (Private Water Supplies)**

There are many private water supplies in the city, which are often drawn from shallow sources. The protection of these is particularly important due to the heavy reliance paid on them by local communities. This Council already monitors these as part of its duties under the Water Industry Act 1991 and Private Water Supplies Regulations 1991.

k) **Water (Other Authorised Abstraction Points)**

All authorised abstraction points will be identified, such as those used for agricultural or recreational use.

l) **Water (Other Specified Receptors)**

All other water receptors, such as rivers, streams, tributaries, reservoirs, lakes etc, will be identified as part of the inspection strategy.

### 8.3 Interaction with other Regulatory Regimes to Deal with Contamination

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The primary aim of the Government is to prevent new contamination occurring. There are several situations therefore where existing pollution control legislation would apply to control the effects of land contamination:

a) **Integrated Pollution Control** (Environmental Protection Act 1990 Part I / Prescribed Processes and Substances Regulations 1991 Schedule 1 Part A) - There are certain

processes prescribed under the above regulations, for a pollution control regime known as Integrated Pollution Control (IPC). This is enforced by the Environment Agency and includes prevention of pollution to land. Section 27 of the Act gives the Environment Agency power to take action to remedy harm caused by a breach of IPC controls. The same circumstances will apply with the new Pollution Prevention & Control regime (EC directive 96/61).

- b) **Waste Management Licensing** (Environmental Protection Act 1990 Part II) - All waste disposal and processing sites (including scrap yards) should be subject to licensing. Contamination causing harm or pollution of controlled waters should be dealt with as a breach of the conditions of the licence. In exceptional circumstances, where the problem arises from an unlicensed activity, it is possible that Part IIA could apply. An example of this would be a leak from an oil tank outside the tipping area.

Where there has been an illegal tipping of controlled waste (fly tipping) this should also be dealt with under the Environmental Protection Act 1990 Part II (section 59).

- c) **Pollution of Controlled Waters not arising from land** (Water Resources Act 1991 section 161) - Where a pollution incident has occurred and the pollutant is discharged directly into the body of water or it has left land and it is entirely in the body of water (i.e. the land is no longer causing pollution), the Water Resources Act 1991 will apply.
- d) **Discharge Consents** (Water Resources Act 1991 Part III) - No remediation notice can require action to be taken which would affect a discharge authorised by consent.
- e) **Change of Land Use** - Where land becomes a risk to potential new receptors as a result of a change of use, the Town & Country Planning Development Control regime will continue to apply as before. At present the majority of remediation for contaminated sites is undertaken as a requirement of a planning permission.
- f) **Risk of Harm to Employees** - Where there is a risk of harm to persons at work from land contamination, this should be dealt with under the Health and Safety at Work etc. Act 1974. The enforcing authority will be either the Health & Safety Executive or this Council depending on the work activity.
- g) **Risk of Harm Following an Incident at a COMAH Site** (Control of Major Accident Hazard Regulations 1999) - Where there has been a release, explosion or other major incident, which has caused land contamination, the restoration should be carried out as part of the COMAH on site/off site emergency restoration plan.





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In addition there are several other situations where the relationship with Part IIA needs clarification:

- h) **Contaminated Food** (Food Standards Act 1999) - Part I of the Food and Environment Protection Act 1985 gave Ministers emergency powers to prevent the growing of food on, inter alia, contaminated land. Following the establishment of the Food Standards Agency, this power is now vested in the Secretary of State. Where the Council suspects crops may be affected from contaminated land to such an extent they may be unfit to eat, they will consult the Food Standards Agency and Department of the Environment Food & Rural Affairs to establish whether an emergency order may be necessary. It should be noted however, that remediation of the site, if necessary, would be carried out through the new powers in Part IIA.
- i) **Radioactivity** - Part IIA does not apply to contamination caused by radioactivity, but the Secretary of State does have the power to make Regulations to that effect. Until such Regulations are created and brought into force, the Council will liaise with the Environment Agency where radioactive contamination is suspected or confirmed.
- j) **Organisms** - Part IIA does not apply to contamination caused by organisms such as bacteria, viruses or protozoa, as they do not fall within the definition of substances. This could affect land contaminated with Anthrax spores, E. coli, etc. The Council will liaise with the Environment Agency in relation to Ministry of Defence land and the Department of the Environment Food & Rural Affairs on all other sites. It should be noted that even though contaminated sites used in connection with biological weapons must be designated 'special sites' (see Appendix 5), this applies only to non biological contamination.
- k) **Statutory Nuisance** - (Environmental Protection Act 1990 Part III) - The relationship between Part IIA and statutory nuisance is not straightforward. Suffice to say if land is declared contaminated land by definition, it cannot be considered a statutory nuisance. This is understandable and ensures there is no duplication or confusion between the two regimes. If, however, the land is investigated and found not to be contaminated land but "land in a contaminated state" (defined as land where there are substances in, on or under the land which are causing harm, or there is a possibility of harm being caused), it also can not be considered a statutory nuisance for the purposes of Part III of the Act. Precisely in what circumstances land might be declared "in a contaminated state" remains to be seen. Where land is not *contaminated land* or in a *contaminated state*, but is causing a nuisance from smell, it could be considered a statutory nuisance as before.

## 9. PROGRAMME OF INSPECTION

The assessment methodology sets out a simple but systematic approach, which follows a source-pathway-receptor methodology consistent with a risk-based approach to the management of contaminated land.

### 9.1 Stage 1 Risk Screening

The strategy for identification will be based on a desk top survey of Nottingham to identify areas of land where:

- a) Previous uses indicate contamination may exist
- b) There is no existing pollution control regime in place
- c) There are known receptors within a determined area of influence and/or pathway

Previous uses considered potentially contaminative are listed in Appendix 4.

Potentially contaminated land shall be identified, listed and categorised using a risk screening methodology. This will utilise the available data regarding: -

- potential sources - from historical mapping, Kelly's Directory, government guidance and local knowledge;
- potential pathways - from environmental, hydrologic and geologic/ hydrogeologic data sources; and
- potential receptors - from land use, gazetteers, local knowledge and features mapping sources i.e. aerial photography.

The risk screening methodology will determine individual scores for the source and for various pathway/receptor linkages. Five receptor types will be assessed: -

- human beings
- ecological systems
- property in the form of buildings
- property in a form other than buildings
- controlled waters



The individual scores will be determined through the assignment of numerical values using a standard set of questions and answers.

After the individual scores are determined for the source and each of the various pathway/receptor linkages, scores will be calculated for each source-pathway-receptor group (based on the five receptor types identified above). In addition, an overall score will be calculated using weighting factors, that considers the combination of the source and all of the five receptor types. The weighting factors will be selected to reflect the relative importance of each of the receptor types.

For example, the human receptor category may be assigned higher weighting than the property categories. The scoring methodology will reflect the concept that a low (or zero) score value will result from a situation where one or more of the three elements of pollutant linkage does not exist.

These scores can then be used to determine a relative ranking of sites. A lower relative score will signify a lower potential for a source, or a pathway and receptor linkage. Conversely, a higher relative score will signify greater potential. This ranking will then be used to assist in identifying those sites of higher priority for further detailed investigation.

Sites where a source of contamination has been identified but there is no receptor and/or pathway will only be inspected further if the status of the site changes, for example, if a new receptor is introduced through the planning process.

In cases where imminent risk of serious harm or serious pollution of controlled waters is suspected, the Council will carry out a detailed risk assessment as soon as reasonably possible. The Environment Agency will be notified in cases of pollution of controlled waters.

## **9.2 Stage 2 - Detailed Risk Assessment**

Following the risk screening process the Council will systematically review those sites identified in order of ranking. At this stage a more detailed investigation will be undertaken to confirm that the pollutant linkage identified is: -

- resulting in significant harm (or the significant possibility of such harm) being caused to the receptor(s), or
- resulting in (or likely to result in) the pollution of controlled waters

If either of these is confirmed then the land becomes contaminated land by definition and the pollutant linkage becomes 'significant'.

Where evaluation of all available data suggests a significant pollutant linkage may exist, it may be necessary to visit the site and carry out some form of on site testing, or take away samples for analysis. In every case this will be carried out by a “suitable person”, adequately qualified to undertake the work (see Appendix 7). The utmost discretion will be used at all times to minimise the effect on occupiers of the land.

Intrusive investigations will be carried out in accordance with appropriate technical procedures to ensure: -

- a) They are effective;
- b) They do not cause any unnecessary damage or harm to any aspect of the environment, including the historic environment; and
- c) They do not cause pollution of controlled waters.

To ensure the most appropriate technical procedures are employed, the Council will have regard to best practice. This will be evaluated using government and industry guidelines.

Sites identified to undergo detailed risk assessment will be the subject of consultation with the City archaeologist to advise on known or potential archaeological issues on the site, and advise if intrusive investigations or remediation works are required.

The detailed investigation of contaminated land is invariably a very time consuming and expensive process, therefore it must be emphasised that all investigations will be carried out on an incremental basis and terminated immediately it is clear that no significant pollutant linkage exists.

Where significant pollutant linkage(s) are suspected, each linkage will be considered separately and an assessment made of the effect and liability of each.

In cases where imminent risk of serious harm or serious pollution of controlled waters has been confirmed, the Council will authorise urgent action.



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## 10. LIAISON AND CONSULTATION

The Pollution Control Section of Nottingham City Council will co-ordinate and implement the Contaminated Land Strategy. In order to carry this out effectively it is necessary to have mechanisms to ensure efficient consultation, transfer of information and, where necessary, the transfer of regulatory control.

In communicating this information the Council will ensure that: -

- The methods used are relevant to the group requesting the information.
- Information is clear, consistent and concise.
- Information is not overly technical.
- There is equal access to all information.
- Officers are available for discussions, meetings, etc.
- All relevant partners are included.
- Feedback will be invited.
- Risk-based information will be communicated objectively and the sources of those assessments are identified.
- The information and decision linking process is timely, transparent, objective and consistent.

### 10.1 Statutory Consultees

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A number of organisations have been identified as statutory consultees: details can be found in Appendix 3.

### 10.2 Non-Statutory Consultees

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The Council will do all in its power to consult the appropriate person(s), owners, occupiers etc. about their views on the state of land where designation as contaminated land is considered. The Council endeavour to keep interested parties informed at each stage of the

investigation, regardless of whether a formal determination of contaminated land has been made.

### **10.3 Consultation with Nottingham City Council**

This strategy impacts on potentially all departments of the Council, in particular: -

#### **Development Control**

The inspection of the District will identify areas of potentially contaminated land, which may be developed, awaiting development, derelict, protected or green belt. This may result in the need to re-examine past development control files or identify development routes for contaminated sites, which may subsequently impact on the Local Development Plan.

#### **Building Control**

Building Control has the duty to enforce protection measures in new build projects to mitigate the impact of contamination on property. Information they hold will be essential to quantify risks.

#### **Legal**

This is a highly complex piece of legislation, which could have significant implications for the Council, landowners and occupiers. The City Secretary and Solicitor's advice may be required on many aspects, including those relating to enforcement, liability, powers of entry, data protection, and access to information etc.

#### **Engineers and Highways**

Land under highways, pavements, verges and common areas may be contaminated and present a risk to potential receptors. Highways Authorities must maintain registers under Part III of the New Roads and Street Works Act 1991 regarding, amongst other things, streets with "special engineering difficulties". This includes risks from contamination.



### **Information Technology**

Significant volumes of data will need to be held both on database and geographical information systems. Support will be required on the use of these systems and data protection.

### **Leisure**

Land in use and controlled by these departments may be contaminated and require remediation. The Arboricultural Officer may need to be consulted on remediation and tree growth. The Conservation Officer may need to be consulted on impacts on eco-receptors.

### **Property**

The Director of Design and Property Services will lead the Council on the remediation of any contaminated sites found to be within their responsibility.

### **Finance**

This legislation can have significant resource implications for the Council, both as an Enforcing Authority and landowner.

## 11. INFORMATION AND COMPLAINTS

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### 11.1 Complaints from the Public

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Complaints about contaminated land, received by the public are to be dealt with using the existing Nottingham City Council procedure for dealing with complaints regarding statutory nuisance.

This procedure ensures that all complaints are logged and recorded, before being responded to by an officer within 10 working days. Nottingham City Council also endeavours to keep all complainants informed as to any developments and progress made with regard to their complaint.

Although Nottingham City Council will attempt to resolve public complaints as quickly as possible, a remediation notice may only be served after a consultation period of 3 months. Subsequently, this may result in delays in the resolution of some complaints.

In all cases of complaints made by the public, the identity of the complainant will remain strictly confidential. However, it will be necessary for the complainant to provide details of their name and address in order for the complaint to be investigated. Also, in some cases it may be necessary for this information to become public, for example, where a remediation notice is appealed in court and the health effect on the complainant is a justification for the land being determined as contaminated.

Any information received by Nottingham City Council from persons who are not directly affected by the contaminated land in question will be recorded and responded to, as and when Nottingham City Council considers investigation to be necessary.

The same procedures will apply with regard to any anecdotal information or evidence received. This information will be recorded and investigated as necessary, however, no determination of contaminated land will be made on the basis of such subjective information without the provision of scientific evidence.

The Council will not normally undertake any investigation based on anonymously supplied information. However in exceptional circumstances an investigation may be carried out.





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## 12 REVIEW MECHANISMS

### 12.1 Review of Strategy document

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Nottingham City Council has a duty to inspect the District 'from time to time', to identify contaminated land. In practice, inspection will be a continuum, balancing a systematic approach with the availability of resources. The Council has a duty to review its inspection strategy on a regular basis and to meet its statutory responsibilities. Particular matters that will be kept under review include:

- The content of the strategy generally
- Priorities for further investigation of potentially contaminated sites
- The potential for the introduction of new receptors
- The potential for new contamination
- Progress on voluntary remediation
- The enforcement process generally and the identification of appropriate persons particularly
- Identification of special sites
- Progress with the implementation

The Pollution Control Section of Nottingham City Council will review the strategy, as a whole, annually and any proposed changes will be reported to the Environment, Planning and Transportation Strategic Board and incorporated as necessary.

### 12.2 Triggers for Early Review

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In addition to the routine review of inspection findings there will be situations which will trigger re-assessment, including:

- Change of use of surrounding land (introduction of new receptors)

- The potential for pollutant linkages to become significant or urgent as a result of unplanned events (e.g. flooding, subsidence, spillages etc), or a change in circumstances
- Identification of a localised effect which could be associated with the land (identification of health effects)
- Responding to new information (information from statutory bodies, public or other interested parties)
- Changes in legislation and guidelines
- Establishment of case law

Following the identification of any of the above triggers, an assessment of the impact on the overall strategy will be carried out and any amendments incorporated.

### **12.3 Quality Control**

The procedures to carry out the requirements of the Strategy will be written and incorporated into the Pollution Control Quality Management System ISO 9001. These procedures will be audited internally on a routine basis.



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## 13. INFORMATION MANAGEMENT

### 13.1 Contaminated Land Strategy Document

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The latest revision of the Strategy will be made available on the Nottingham City Council website [www.nottinghamcity.gov.uk](http://www.nottinghamcity.gov.uk), and at the offices of the Pollution Control Section, Development and Environmental Services Department, Lawrence House, Talbot Street. Members of the public will be able to view the strategy document free of charge during normal office hours 8.30am - 4.50pm. Requests for copies of documents must be made to the Pollution Control Section and a reasonable charge will be made. The latest version will be published within 6 weeks of corporate approval.

### 13.2 Contaminated Land Register

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The information stored on a formal register is that relating to regulatory action and remediation. The contents are specified at length in the Contaminated Land (England) Regulations 2000 and include the following:

- Remediation Notices
- Remediation Declarations/Statements
- Appeals against Notices
- Designation of Special Sites
- Notification of Claimed Remediation
- Convictions for Offences

This formal register will be maintained at the offices of the Pollution Control Section, Development and Environmental Services Department, Lawrence House, Talbot Street. Members of the public will be able to view the register free of charge during normal office hours 8.30am - 4.50pm. Requests for copies of documents must be made to the Pollution Control Section and a reasonable charge will be made.

### **13.3 Provision of Information to Interested Parties**

Implementation of the strategy will result in significant volumes of data, which will be held on computer databases and geographical information systems, as well as in paper form. There is no statutory obligation to disclose this information; therefore the Council must comply with the requirements of the Environmental Information Regulations 1992 when dealing with requests for disclosure.

Requests for information will therefore be dealt with promptly and no later than 14 days after they are made. A minimum charge of £30.00 will be made for the supply of information in accordance with the Regulations. Where the Council must refuse a request for any of the reasons stated in the Regulations, it will provide details of the reasons in writing at no cost to the applicant.

### **13.4 Provision of Information to the Environment Agency**

The Environment Agency is required to prepare and publish a report on the 'State of Contaminated Land in England' and another report for Wales. In order to do this the Environment Agency will collate the information it holds and that held by local authorities.

The report will include:

- A summary of local authority inspection strategies, including progress made against the strategy and its effectiveness
- The nature, extent and distribution of contaminated land
- The level of remediation undertaken
- Regulatory activity under Part IIA

The Environment Agency is required to produce a State of Contaminated Land Report from time to time or when the Secretary of State requests it.



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## APPENDIX 1

### Glossary of Terms

Where references are made to section numbers, this refers to the sections of the legislation and statutory guidance.

**Aquifer:** a permeable geological formation which is capable of both storing and transmitting water in significant amounts.

**Apportionment:** any determination by the enforcing authority under section 78F(7) (that is, a division of the costs of carrying out any remediation action between two or more appropriate persons).

**Appropriate person:** any person who is an appropriate person, determined in accordance with section 78F to bear responsibility for any thing which is to be done by way of remediation in any particular case.

**Brownfield site:** a site which has been previously developed and is presently disused. Redevelopment of such sites may be problematic due to issues of contamination, whether actual or perceived.

**Building:** any structure or erection, and any part of a building including any part below ground, but not including plant or machinery comprised in a building.

**Caused or knowingly permitted:** test for establishing responsibility for remediation, under section 78F(2); see paragraphs 9.8 to 9.14 of Annex 2 of the statutory guidance for a discussion of the interpretation of this term.

**Class A person:** a person who is an appropriate person by virtue of section 78F(2) (that is, because he has caused or knowingly permitted a pollutant to be in, on or under the land).

**Class B person:** a person who is an appropriate person by virtue of section 78F(4) or (5) (that is, because he is the owner or occupier of the land in circumstances where no Class A person can be found with respect to a particular remediation action).

**Contaminant:** a substance, which is in, on or under the land and which has the potential to cause harm or to cause pollution of controlled waters. Also known as a 'source'.

**Contaminated land:** 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.

**Controlled waters:** defined in section 78A(9) by reference to Part III (section 104) of the Water Resources Act 1991; this embraces territorial and coastal waters, inland fresh waters, and ground waters.

**Eco-system:** A system of living organisms interacting with each other and their environment.

**Enforcing authority:** defined in section 78A(9) as:

- (a) in relation to a special site, the Environment Agency;
- (b) in relation to contaminated land other than a special site, the local authority in whose area the land is situated.

**Exclusion:** any determination by the enforcing authority under section 78F(6) (that is, that a person is to be treated as not being an appropriate person).

**Groundwater:** Groundwater is found as water sitting in the spaces between rock particles and in underground fissures in special rock layers known as 'aquifers'. It can also be found in unconsolidated deposits of recent geological age.

**Hardship:** a factor underlying any cost recovery decision made by an enforcing authority under section 78P(2). See paragraphs 10.8 to 10.10 of Annex 2 of the statutory guidance for a discussion of the interpretation of this term.

**Harm:** harm to the health of living organisms or other interference with the ecological systems of which they form part and, in the case of man, includes harm to his property.


**Inspection using statutory powers of entry:** any detailed inspection of land carried out through use of powers of entry given to an enforcing authority by section 108 of the Environment Act 1995.

**Intrusive investigation:** an investigation of land (for example by exploratory excavations) which involves actions going beyond simple visual inspection of the land, limited sampling or assessment of documentary information.

**Liability group:** the persons who are appropriate persons with respect to a particular significant pollutant linkage.

**Local authority:** any unitary authority, district council, the Common Council of the City of London, the Sub-Treasurer of the Inner Temple and the Under-Treasurer of the Middle Temple.

**Orphan linkage:** a significant pollutant linkage for which no appropriate person can be found, or where those who would otherwise be liable are exempted by one of the relevant statutory provisions.



**Owner:** a person (other than a mortgagee not in possession) who, whether in his own right or as trustee for any other person, is entitled to receive the rack rent of the land, or where the land is not let at a rack rent, would be so entitled if it were so let.

**Part IIA:** Part IIA of the Environmental Protection Act 1990.

**Pathway:** one or more routes or means by, or through, which a receptor:

- (a) is being exposed to, or affected by, a contaminant, or
- (b) could be so exposed or affected.

**Person acting in a relevant capacity:** defined in section 78X(4), for the purposes of limiting personal liability, as any of the following:

- (a) a person acting as an insolvency practitioner, within the meaning of section 388 of the Insolvency Act 1986 (including that section as it applies in relation to an insolvent partnership by virtue of any order made under section 421 of that Act;
- (b) the official receiver acting in a capacity in which he would be regarded as acting as an insolvency practitioner within the meaning of section 388 of the Insolvency Act 1986 if subsection (5) of that section were disregarded;
- (c) the official receiver acting as a receiver or manager;
- (d) a person acting as a special manager under section 177 or 370 of the Insolvency Act 1986;...
- (f) a person acting as a receiver or receiver and manager under or by virtue of any enactment, or by virtue of his appointment as such by an order of a court or by any other instrument.

**Pollutant:** a contaminant which forms part of a pollutant linkage.

**Pollutant linkage:** the relationship between a contaminant, a pathway and a receptor.

**Pollution of controlled waters:** the entry into controlled waters of any poisonous, noxious or polluting matter or any solid waste matter.

**Possibility of significant harm:** a measure of the probability, or frequency, of the occurrence of circumstances, which would lead to significant harm being caused.

**Receptor:** either:

- (a) a living organism, a group of living organisms, an ecological system or a piece of property which:

- (i) is in a category listed in Table A in Chapter A of the statutory guidance as a type of receptor, and
  - (ii) is being, or could be, harmed, by a contaminant; or
- (b) controlled waters which are being, or could be, polluted by a contaminant.

**Register:** the public register maintained by the enforcing authority under section 78R of particulars relating to contaminated land.

**Relevant information:** information relating to the assessment of whether there is a significant possibility of significant harm being caused, which is:

- (a) scientifically-based;
- (b) authoritative;
- (c) relevant to the assessment of risks arising from the presence of contaminants in soil; and
- (d) appropriate to the determination of whether any land is contaminated land for the purposes of Part IIA, in that the use of the information is consistent with providing a level of protection of risk in line with the qualitative criteria set out in Tables A and B of Chapter A of the statutory guidance.


**Remedial treatment action:** a remediation action falling within the definition in section 78A (7)(b), that is the doing of any works, the carrying out of any operations or the taking of any steps in relation to any such land or waters for the purpose:

- (a) of preventing or minimising, or remedying or mitigating the effects of any significant harm, or any pollution of controlled waters, by reason of which the contaminated land is such land, or
- (b) of restoring the land or waters to their former state.

**Remediation:** defined as: -

- (a) the doing of anything for the purpose of assessing the condition of -
  - (i) the contaminated land in question;
  - (ii) any controlled waters affected by that land; or
  - (iii) any land adjoining or adjacent to that land;



- 
- (b) the doing of any works, the carrying out of any operations or the taking of any steps in relation to any such land or waters for the purpose -
    - (i) of preventing or minimising, or remedying or mitigating the effects of any significant harm, or any pollution of controlled waters, by reason of which the contaminated land is such land; or
    - (ii) of restoring the land or waters to their former state; or
  - (c) the making of subsequent inspections from time to time for the purpose of keeping under review the condition of the land or waters.

**Remediation action:** any individual thing which is being, or is to be, done by way of remediation.

**Remediation notice:** a notice specifying what an appropriate person is to do by way of remediation and the periods within which he is required to do each of the things so specified.

**Remediation scheme:** the complete set or sequence of remediation actions (referable to one or more significant pollutant linkages) to be carried out with respect to the relevant land or waters.

**Remediation statement:** a statement prepared and published by the responsible person detailing the remediation actions which are being, have been, or are expected to be, done as well as the periods within which these things are being done.

**Risk:** the combination of:

- (a) the probability, or frequency, of occurrence of a defined hazard (for example, exposure to a property of a substance with the potential to cause harm); and
- (b) the magnitude (including the seriousness) of the consequences.

**Significant harm:** any harm, which is determined to be significant in accordance with the statutory guidance in Chapter A (that is, it meets one of the descriptions of types of harm in the second column of Table A of that Chapter).

**Significant pollutant:** a pollutant which forms part of a significant pollutant linkage.

**Significant pollutant linkage:** a pollutant linkage, which forms the basis for a determination that a piece of land is contaminated land.

**Significant possibility of significant harm:** a possibility of significant harm being caused which, by virtue of section 78A(5), is determined to be significant in accordance with the statutory guidance in Chapter A of the statutory guidance.

**Source protection zone:** protection zones around certain sources of groundwater used for public water supply. Within these zones, certain activities and processes are prohibited or restricted.

**Special site:** defined by section 78A(3) as:  
any contaminated land -

- (a) which has been designated as such a site by virtue of section 78C(7) or 78D(6); and
- (b) whose designation as such has not been terminated by the appropriate Agency under section 78Q(4).

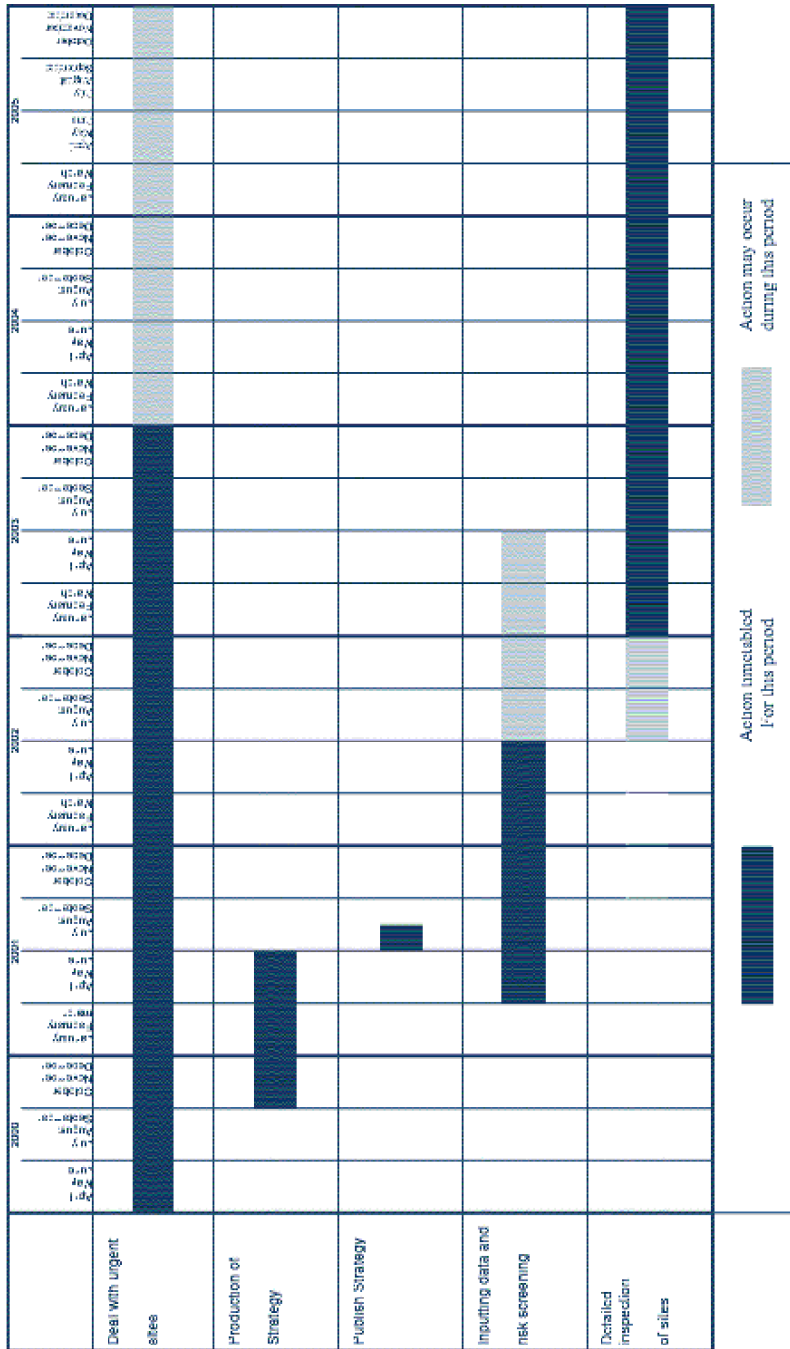
The effect of the designation of any contaminated land as a special site is that the Environment Agency, rather than the local authority, becomes the enforcing authority for the land.

**Substance:** any natural or artificial substance, whether in solid or liquid form or in the form of a gas or vapour.

**Sustainability (or sustainable development):** development, which meets the needs of the present generation without compromising the ability of future generations to meet their own needs.

# APPENDIX 2

## Strategy and Inspection Programme



## APPENDIX 3

### List of Statutory Consultees

#### DEPARTMENT OF THE ENVIRONMENT, FOOD AND RURAL AFFAIRS (DEFRA)

J. G. Thurlow  
Animal Health  
Ceres House  
2 Searby Road  
Lincoln  
LN2 4DW  
Tel: 01522 529 951  
Fax: 01522 560 668

#### EAST MIDLANDS DEVELOPMENT AGENCY

Chris Blankley  
Head of Technical Team  
Apex Court  
City Link  
East Midlands  
Nottingham  
NG2 4LA  
Tel: 0115 988 8300  
inf@emd.org.uk

#### ENGLISH HERITAGE

Ann Plackett  
East Midlands Region  
44 Deringate  
Northampton  
NM1 1UH  
Tel: 01604 735 450

#### ENGLISH NATURE

Ian Evans  
East Midlands Team  
The Maltings  
Wharf Road  
Grantham  
Lincolnshire  
NG31 6BH  
Tel: 01476 568 431  
Fax: 01476 570 927

#### ENGLISH PARTNERSHIPS

Mrs P Hay-Plumb  
Chief Executive  
Corporate Headquarters  
110 Buckingham Road  
London  
SW1H 9SB  
Tel: 0207 881 1600  
Fax: 0207 976 7740

#### ENVIRONMENT AGENCY

Clare Bates  
Area Contaminated Land Officer  
Trentside Offices  
Scarrington Road  
West Bridgford  
Nottingham  
NG2 5FA  
Tel: 0115 9455722  
Fax: 0115 9817743



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**FOOD STANDARDS AGENCY**

Dr Patrick Miller  
Contaminants Division  
PO Box 31037  
Room 238  
Ergon House  
Horseferry Road  
London  
SW1P 3WG  
Tel: 020 7238 5751  
Fax: 020 7238 5331  
Email:  
patrick.miller@foodstandards.gsi.gov.uk

**HEALTH AND SAFETY EXECUTIVE**

Mr G Bungay  
H.S.E. Midland Region Office  
Pearson Building  
55 Upper Parliament Street  
Nottingham  
NG1 6AU  
Tel: 0115 971 2800  
Fax: 0115 971 2802

**HER MAJESTY'S CUSTOMS AND  
EXCISE OFFICE**

Landfill Tax Helpline  
Tel: 0845 912 8484

**MINISTRY OF DEFENCE**

Defence Estates  
Ray Dickinson  
Estates Directorate  
Environmental Policy  
Blakemore Drive  
Sutton Coldfield  
West Midlands  
B75 7RL  
Tel: 0121 311 2126  
Fax: 0121 311 3707  
Email: raymond.dickinson@de.mod.uk

**NOTTINGHAMSHIRE COUNTY  
COUNCIL**

Mike Fenton  
Env. Dept (Land Reclamation)  
Trent Bridge House  
Fox Road  
West Bridgford  
Nottingham  
NG2 6BJ  
Tel: 0115 977 4381  
Fax: 0115 977 2148  
Email: mike.fenton@nottscc.gov.uk

Ursilla Spence  
(Sites & Monuments Records)  
Archaeological Department  
(Scheduled Ancient Monuments)  
County Hall  
West Bridgford  
Nottingham  
NG2 7QP

John Cheetham  
Petroleum Officer  
Head of Trading Standards Operations  
Trading Standards Service  
County Hall  
West Bridgford  
Nottingham  
NG2 7QP  
Tel: 0115 977 3388  
Fax: 0115 977 2806

## APPENDIX 4

### LIST OF POTENTIALLY CONTAMINATIVE LAND USES

This list has been drawn up to provide a broad indication of the type of sites that are known to use, or to have used in the past, materials that could pollute the soil. It must be understood that the list is not exhaustive, also that inclusion on this list does not necessarily infer the existence of a pollutant linkage.

Abattoirs	Descaling contractors (chemical)
Adhesives manufacture	Detergent manufacture
Agriculture	Distilleries
Aircraft manufacture	Dockyards
Airports	Drum cleaning
Animal burial	Dry cleaners
Animal by-product processing	Dye works
Anodisers	Dyers and finishers
Anti-corrosion treatment	Electricity generation
Asbestos products	Electrical engineers
Asphalt works	Electro platers
Automotive engineering	Engineering works
Battery manufacture	Extractive Industry
Bearings manufacture	Explosives manufacture (including fireworks)
Blacksmiths	Farms
Boiler makers	Fertiliser manufacture
Bookbinding	Fellmongers
Brass and copper tube manufacture	Fibre glass works
Brass foundries	Food processing
Brewing	Foundries
Car manufacture	Fuel manufacture
Carbon products manufacture	Fuel storage
Cement works	Garages and depots
Charcoal works	Gas mantle manufacture
Chemical manufacture and storage	Gas works
Chrome plating	Glass works
Ceramics manufacture	Glue manufacture
Coal carbonisation	Gum and resin manufacture
Coal merchant	Hatters
Concrete batching	Hide and skin processors
Coppersmiths	
Cosmetics and toiletries manufacture	



Ink manufacture  
Iron founder  
Iron works  
  
Knackers yards  
  
Laboratories  
Laquer manufacture  
Laundries  
Lead works  
Leather manufacture  
Linoleum, vinyl and bitumen based floor covering manufacture  
  
Mechanical engineering & ordnance works  
Metal coating  
Metal manufacture  
Metal sprayers and finishers  
Mining  
Mirror manufacture  
Motor vehicle manufacture  
  
Non-ferrous metal works  
  
Oil fuel distributors and suppliers  
Oil merchants  
Oil refineries  
Oil storage  
  
Paint and varnish manufacture  
Paper manufacture  
Paper works  
Pesticides manufacture  
Petrol stations  
Pharmaceuticals  
Photographic film works  
Photographic processing  
Plastics works  
Plating works  
Power stations  
Precious metal recovery works  
Print works  
Printed circuit board manufacture  
  
Radioactive materials processing  
Railway engineering works  
  
Railway land  
Railway locomotive manufacture  
Refiners of nickel and antimony  
Resin manufacture  
Rubber manufacture  
  
Scrap metal dealers  
Sealing compound manufacture  
Sewage works  
Sewage sludge disposal areas  
Sheet metal merchants and works  
Ship breakers  
Ship builders  
Shooting ranges  
Skein silk dyers  
Small arms manufacture  
Smokeless fuel manufacture  
Soap manufacture  
Solvent manufacture  
Solvent recovery  
Steel manufacture  
Stove enamellers  
Synthetic fibre manufacture  
  
Tank cleaning  
Tanneries  
Tar and pitch distillers  
Textile manufacture  
Thermometer makers  
Timber treatment  
Timber preservatives manufacture  
Tin plate works  
Transport depots  
Tyre manufacture and retreading  
  
Vehicle manufacture  
Vulcanite manufacture  
Vulcanisers  
  
Waste disposal  
Waste recycling  
Waste treatment  
  
Zinc works

## APPENDIX 5

### Special Sites

1. Once a local authority has identified land as contaminated land by definition, it must also consider whether it falls into the category of a special site. Special sites are sites where the Environment Agency will be the enforcing authority.
2. What exactly constitutes a special site is specified in the Contaminated Land (England) Regulations 2000. For a legal definition the Regulations must always be consulted. In simple terms, however, they include land: -
  - Polluting controlled waters (in certain circumstances - see appendix 4);
  - On sites subject to Integrated Pollution Control (see Environmental Protection Act 1990 Part I - Prescribed Processes and Substances Regulations 1991 schedule 1 part A);
  - With waste acid tar lagoons (on sites used for refining benzole, used lubricants or petroleum);
  - Used as an oil refinery;
  - Used to manufacture or process explosives;
  - Used to manufacture or dispose of atomic, chemical or biological weapons (non biological contamination only);
  - Used for other nuclear purposes;
  - Owned or occupied by a defence organisation for naval, military or air force purposes (not off base housing / NAFFI);
  - Held for the benefit of Greenwich Hospital.
3. Contaminated land beyond the boundary of these premises (but contaminated by them) also forms part of the special site.





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## APPENDIX 6

### Pollution of Controlled Waters

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1. Controlled waters are defined for the purposes of Part IIA as:
  - Coastal waters including docks
  - Relevant territorial waters (usually to three miles)
  - Inland fresh waters (relevant rivers, watercourses, lakes, ponds, reservoirs - including bottom / channel / bed, even if dry)
  - Ground water (section 104 of the Water Resources Act 1991)
2. The pollution of controlled waters is simply defined as:

*The entry into controlled waters of any poisonous, noxious or polluting matter or any solid waste matter*
3. There is no power in the Act to enable the Secretary of State to issue guidance on what degree of pollution may constitute pollution of controlled waters. This has been accepted as a potential area of conflict. When, however, considering cases where it is thought very small quantities of a contaminant are causing pollution, local authorities must consider what remediation it may be reasonable to require. This should act as a limiting factor thereby ensuring unrealistic demands are not made in relation to cases of very minor pollution.
4. Pollution of controlled waters will rarely be dealt with by the local authorities. Below is a summary of the issues relating to controlled waters.
5. Where pollution of groundwater has occurred and the source can not be identified, or the polluting substances are contained entirely within the body of water (and not in or on the land), then Part IIA does not apply and the matter would be dealt with by the Environment Agency under section Part III of the Water Resources Act 1991 (see above).
6. Where pollution has occurred from land which subsequently affects the wholesomeness of drinking water within the meaning of section 67 of the Water Industry Act 1991 (Water Supply [Water Quality] Regulations 1989 / Private Water Supplies Regulations 1991), then the land becomes a **special site**.

7. Where pollution has occurred from land which results in surface water failing to meet the criteria in Regulations# made under section 82 of the Water Resources Act 1991, then the land becomes a **special site**:

The Surface Water (Dangerous Substances) (Classification) Regulations 1989  
 The Bathing Waters (Classification) Regulations 1991  
 The Surface Water (Dangerous Substances) (Classification) Regulations 1992  
 The Surface Water (River Eco System) (Classification) Regulations 1994  
 The Surface Water (Abstraction for Drinking Water) (Classification) Regulations 1996  
 The Surface Water (Fish life) (Classification) Regulations 1997  
 The Surface Water (Shellfish) (Classification) Regulations 1997  
 The Surface Water (Dangerous Substances) (Classification) Regulations 1997  
 The Surface Water (Dangerous Substances) (Classification) Regulations 1998

8. Where the pollution of a specified aquifer is caused by any of the following contaminants the land becomes a **special site**:

Organohalogen compounds and substances which may form such compounds in the aquatic environment;  
 Organophosphorus compounds;  
 Organotin compounds;  
 Substances which possess carcinogenic, mutagenic or teratogenic properties in or via the aquatic environment;  
 Mercury and its compounds;  
 Cadmium and its compounds;  
 Mineral oil and other hydrocarbons;  
 Cyanides.

- Specified aquifers are those contained in the following rocks:  
 Pleistocene Norwich Crag;  
 Upper Cretaceous Chalk;  
 Lower Cretaceous Sandstones;  
 Upper Jurassic Corallian;  
 Middle Jurassic Limestones;  
 Lower Jurassic Cotteswold Sands;  
 Permo-Triassic Sherwood Sandstone Group;  
 Upper Permian Magnesian Limestone;  
 Lower Permian Penrith Sandstone;  
 Lower Permian Collyhurst Sandstone;  
 Lower Permian Basal Breccias, Conglomerates and Sandstones;  
 Lower Carboniferous Limestones.



9. This, in effect, leaves local authorities with the potential responsibility for the pollution of controlled waters where:
- a) Surface or coastal waters are affected but not breaching the Regulations in paragraph 7 above.
  - b) Groundwater (other than a principal aquifer specified as in 8 above) is contaminated and the water is not used for drinking.


## APPENDIX 7

### Powers of Entry and the Appointment of “Suitable Persons”

1. Section 108 of the Environment Act 1995 gives the local authority power to authorise, in writing, “suitable persons”, to investigate potentially contaminated land. These powers are extensive and will be considered in detail with the Council’s Solicitor prior to any resisted entry being attempted. It should be noted that these powers are not available to the Environment Agency. The powers which a person may be authorised to exercise include:
  - To enter at any reasonable time (or in urgent cases, at any time, if need be by force) any premises / land to make such examination and investigations necessary.
  - To take samples, photographs, carry out tests, install monitoring equipment etc.
2. At least seven days notice must be given to residential occupiers and to occupiers of land where heavy plant is to be used. Consent must be obtained to enter from the occupier, or failing that, a warrant obtained under Schedule 18 of the Act.
3. It should be noted that there are no circumstances in which the Council will use these powers to obtain information about the condition of land, where:
  - It can obtain the information from third parties without the need for entering the site; or
  - A person offers to provide the information within a reasonable and specified time, and does so.

### Urgent Action

4. Urgent action must be authorised where the Council is satisfied that there is imminent danger of serious harm or serious pollution of controlled waters being caused as a result of contaminated land. In such circumstances the procedures identified in the statutory guidance will be followed which may involve the forced entry into the premises.
5. The terms “imminent” and “serious” are unfortunately not defined, local authorities are advised to use the normal meaning of the words. There is, however, guidance on what may constitute “seriousness” when assessing the reasonableness of remediation.

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6. The Council will undertake the remediation in urgent cases where it is the enforcing authority if it is of the opinion that the risk would not be mitigated by enforcement action. In the case of a special site the Council will declare the land contaminated land in accordance with the statutory procedure, and then notify the Environment Agency who will then be responsible for the remediation.
  7. In appropriate cases the Council will seek to recover costs of remediation works it has completed.
  8. All intrusive investigations will be carried out in accordance with appropriate technical procedures to ensure:
    - a) They are effective
    - b) They do not cause any unnecessary damage or harm
    - c) They do not cause pollution of controlled waters

### **Compensation**

9. Schedule 18 of the Environment Act 1995 makes clear the circumstances when a local authority must pay compensation for loss or damage as a result of the use of these powers. The Director of Development and Environmental Services will therefore ensure that only appropriate technical procedures are deployed, the utmost care is taken at all times, and the conditions carefully recorded before, during and after completion of the necessary works.

### **'Suitable Persons'**

10. The science and associated technical procedures relating to the investigation and assessment of contaminated land are extremely complex. Knowledge of several specialised disciplines is required together with an ability to interpret significant volumes of data and make a reasoned judgement, often in difficult circumstances.
11. The consequences of, 'getting it wrong', could, in many cases, have a major impact on the District and on people's lives. On the one hand, an entire area could be unnecessarily blighted and homes rendered worthless over night, whilst on the other, a generation of children could be left at risk from an unidentified pathogen.
12. Neither the Act nor the guidance considers what may constitute a "suitable person", for the purposes of the investigation and assessment of contaminated land. There is no list of approved consultants or any professional organisation which oversees the

training of contaminated land specialists. There is no minimum qualification and no recognised qualification. Consultants come from a range of backgrounds including:

Environmental Health  
Other environmental science disciplines (several)  
Surveyors  
Engineers  
Geologists  
Hydrologists  
Soil scientists  
Chemists etc

13. Ultimately, the responsibility for determining what land may and may not be declared contaminated, by definition, lies with the Director of Development and Environmental Services Department, who will, however, often need to rely on the advice of appointed, "suitable persons". Under these circumstances criteria have been developed to assist in their selection.

### **Procedure for the Appointment of 'Suitable Persons' for the Purposes of Part IIA**

14. There are two prerequisites to commencing the process of appointing suitable external consultant / contractors, firstly:
  - Adequate funding to support the process; and secondly
  - A well qualified person, 'in house', to act in the client role
15. Such a person, as well as having sufficient knowledge and experience to specify the contract, must have sufficient time to monitor it also.
16. Additional training will be required to provide an adequate foundation of knowledge upon which to carry out the role.
17. The Client officer will produce a comprehensive, unambiguous but succinct draft specification for each contract which clearly identifies the work to be carried out, its purpose, timetable and Client / Contractor responsibilities. Then s/he will produce a list of appropriate companies, taking care to seek out those most prominent and successful in the field, rather than only those who promote themselves to the Council. Each of these will then be contacted in turn for an informal discussion as to their capability, expertise and experience. Prior to commencing this process the Client officer will produce a selection of questions relevant to the contract to ask each company. This should then hopefully result in a short list of six or so companies who will be asked to quote / tender for the work based on a final specification.

18. A checklist of information requirements is included at the end of this section.
19. Once appointed the Client officer will be responsible for monitoring the contract to ensure:

The contractors are kept fully aware of their responsibilities at all time  
 Quality control requirements are met  
 Amendments are quickly agreed and documented  
 The time table is strictly adhered to  
 The aim of the contract is achieved

### CHECKLIST OF INFORMATION REQUIREMENTS

CLIENT'S INFORMATION REQUIREMENTS	REQUIREMENTS OF THE CONSULTANT
1 GENERAL	
1.1 Background on company capability	How long has company been operating? What kind of work were they originally set up  Who traditionally are their clients?
1.2 Numbers and qualifications of staff  1.3 CV and availability of key staff	If a large company, what are the interests / sympathies of those in control. Do they consider local authorities as a serious market? How many staff are available for this type of work, will they need to subcontract? Who will actually be doing the job, what are their qualifications and experience? Practical experience is KEY. Do they really understand Part IIA? Knowledge of environmental law & local government systems an important requirement.

CLIENT'S INFORMATION REQUIREMENTS	REQUIREMENTS OF THE CONSULTANT
1.4 Details of QA systems including: Allocation of responsibilities Project Management Technical Procedures Technical review Training Assessment of external suppliers	Where appropriate, need details of quality management systems indicating whether accredited by a third party. What technical procedures to be used. Which staff responsible, which will undertake technical review. How will quality of subcontractors is to be ensured.
1.5 Management of Health & Safety	Identify H&S management procedures where appropriate. Do they understand the fundamental requirements of H&S legislation?
1.6 Track record on similar projects	Ever done similar work or is this a new departure?
1.7 Client references	Need several telephone numbers to enable rapid verification of statements made at interview.
1.8 Financial status	May not always be necessary but on large contracts where considerable financial outlay required need to demonstrate solvency. Bond may be required on large remediation contracts.
1.9 Details of insurance cover	Need to demonstrate insurance available 3rd party liability and professional indemnity. Identify limitations / exclusions
1.10 Membership of professional and trade associations	May be necessary to make checks, Corporate membership of professional organisations, meeting CPD requirements?
1.10 Membership of professional and trade associations	May be necessary to make checks, Corporate membership of professional organisations, meeting CPD requirements?
1.11 Compliance with codes of practice	Can they demonstrate knowledge of the appropriate guidance, codes of practice etc relevant to the job?





CLIENT'S INFORMATION REQUIREMENTS	REQUIREMENTS OF THE CONSULTANT
2 PROJECT SPECIFIC	
2.1 Technical proposal	The proposal must make it absolutely clear that work will be carried out to comply with the requirements of the specification, what the results will be, and when they will be achieved.
2.2 Project management plan / working plan	A clear timetable must be available which states what stage will be reached by when and who will be responsible to deliver.
2.3 Details of sub contractors	Subcontractors will be necessary on large technical projects. Must state who they are, contact points and lines of responsibility.
2.4 Details of technical procedures	Again, the working plan must clarify all procedures and lines of responsibility.
2.5 Reporting	Reporting procedures must be made absolutely clear. It is essential not to have masses of reports landing on the desk of the client officer which puts the responsibility back on him / her. The responsibility for doing what has been agreed to the agreed standard must lie with the contractor.
2.6 Programme & 2.7 Financial proposal	It may be that the Contractor will want to provide a guide price or include large contingency sums. The programme of work and the quotation must not be ambiguous. A lot depends on the quality of the original specification. Stage payments and timetables must be firm and with perhaps penalty clauses if fail to deliver on time.
2.8 Conditions of engagement	Contracts need not be long and wordy, should define responsibilities of both parties, liabilities etc succinctly.

## APPENDIX 8

### OUTCOME OF CONSULTATION

#### External Consultees

Rushcliffe Borough Council  
Ashfield District Council  
Bassetlaw District Council  
Broxtowe Borough Council  
Mansfield District Council  
Newark and Sherwood District Council  
Gedling Borough Council  
East Midlands Development Agency  
English Heritage  
English Nature  
English Partnerships  
Environment Agency  
Food Standards Agency  
Health and Safety Executive  
Her Majesty's Customs and Excise Office  
Department of the Environment, Food and Rural Affairs  
Ministry of Defence  
Nottinghamshire County Council, Env. Dept (Land Reclamation)  
Nottinghamshire County Council, Archaeological Department (Scheduled Ancient Monuments)  
Nottinghamshire County Council, Trading Standards Service  
University of Nottingham  
The Nottingham Trent University  
Nottingham Green Partnership  
Nottingham Energy Partnership  
Nottingham Development Enterprise  
Nottinghamshire Local Historical Association  
Nottinghamshire Law Society  
Friends of the Earth  
Wilson Bowden Properties Ltd  
Westbury Homes (Holdings) Ltd  
Wimpey Homes  
Birch Construction Division Ltd  
Matrixgrade Ltd



Wardell Armstrong Consulting Group  
The BWB Partnership Ltd  
Joynes Pike and Associates Ltd  
Ove Arup and Partners  
Conestoga Rovers and Associates (UK) Ltd  
W S Atkins - Northern  
WSP Consulting Engineers  
Allot and Lomax  
Nottingham Community Housing Association  
North British Housing Association  
Metropolitan Housing Trust Ltd  
Nottingham Chamber of Commerce and Industry  
Confederation of British Industry  
White Rose Environmental  
Boots  
Raleigh Industries Ltd  
Imperial Tobacco Ltd  
Nottingham City Hospital NHS Trust  
Railtrack plc  
Severn Trent Water  
Aspley Library  
Bakersfield Library  
Basford Library  
Bestwood Library  
Bilborough Library  
Bulwell Library  
Carlton Road Library  
Central Library  
Clifton Library  
Hyson Green Library  
Mobile Library  
Meadows Library  
Radford/Lenton Library  
St Anns Library  
Sherwood Library  
Sneinton Library  
Strelley Library  
Top Valley Library  
Western Boulevard Library  
Wilford Library  
Wollaton Library

## Internal Consultees

Councillor A M Clark

Councillor B Grocock

Councillor M M Edwards

Councillor M Cowan

Councillor K Mulloy

Sue Wraith - Service Manager, Development Control

Derek Turton - Service Manager, Building Control

Richard Allen - Assistant Director, Property Division, Design and Property Services

Michael Williams, Director of Leisure and Community Services

Heather Tomlinson, Director of Education

Director of Housing

Jim Coddington - Service Manager, Highway Management Division

Debra La Mola, Committee Administrator (Area 1)

Carol Prince, Committee Administrator (Area 2)

David Cocking, Committee Administrator (Area 3)

Yinka Junaid, Committee Administrator (Area 4)

Sewa Singh, Committee Administrator (Area 5)

Carol Prince, Committee Administrator (Area 7)

Martin Parker, Committee Administrator (Area 8)

CONSULTATION RESPONDENT	COMMENTS MADE	DIRECTOR'S COMMENT	ACTION PROPOSED
1 Mr D Ellis (15.5.01)	Allotment holder who works the land organically – concerned at the statement on page 31 (para 8.3) about the primary aim of the Government being to prevent new contamination occurring – is in direct conflict with the policy of burning animals on pyres to prevent the spread of foot and mouth disease.	Does not adversely affect the proposed strategy	No action
2 Nottinghamshire Local History Association (15.5.01)	Re-assured to see the Councils and the Government (whose very existence is to care for their citizens) assume these responsibilities	Does not adversely affect the proposed strategy	No action
3 The BWB Partnership Limited (15.05.01)	Will forward comments by 15 June.	Comments not received	No action
4 East Midlands Development Agency (16.05.01)	Document is user friendly and contents comprehensive	Does not adversely affect the proposed strategy	No action
5 English Nature (23.05.01)	Welcome the Contaminated Land Strategy but have no comments on timescale or on the structure of the strategy. Wish to draw attention to: Areas of special scientific interest – defined in the Wildlife and Countryside Act 1981 (as amended)	These matters will be addressed on a site specific basis	No amendment to Strategy necessary
	Special Areas of Conservation (not applicable to Nottingham City)	Not applicable	None

CONSULTATION RESPONDENT	COMMENTS MADE	DIRECTOR'S COMMENT	ACTION PROPOSED
5	Ramsar sites listed under the Convention on Wetland of International Importance (not applicable to Nottingham City).  National Nature Reserves (not applicable to Nottingham City).  Local Nature Reserves (LNRs) declared under Section 21 of the National Parks and Access to the Countryside Act 1949.  Sites of Importance for Nature Conservation (SINCs) afforded Planning Policy Protection under Nottingham City Local Plan  Marine Nature Reserves (not applicable to Nottingham City)	Not applicable  Not applicable  These matters will be addressed on a site specific basis  These matters will be addressed on a site specific basis  Not applicable	None  None  No amendment to strategy necessary  No amendment to strategy necessary  None
6 Defence Estates (MOD) (25.5.01)	Protected species need mentioning in the strategy as contaminated land sites may have been colonised by species such as badgers or great crested newts which may present significant legal constraints to remediation.  The strategy is a very comprehensive document.	Important that remediation does not adversely affect wildlife	Amendments to strategy to safeguard protected species.  None

CONSULTATION RESPONDENT	COMMENTS MADE	DIRECTOR'S COMMENT	ACTION PROPOSED
6	The use of the term significant in Clause 8.1(n) appears to be out of context when compared to the descriptions of the other potential sources of contamination.	The clause states 'their potential for contamination could be significant'. Do not consider that this phrase is out of context as it refers to possibility rather than probability	Phrase removed. Strategy amended
	Statutory guidance; states that the descriptions of Special Sites do not imply that land of that type is more likely to constitute contaminated land, only that they identify cases where if the land is contaminated the EA is best placed to be the enforcement authority. This point is not also made clear in Appendix 5.	Noted	Appendix 5 to be amended to make reference to this comment and enforcement responsibility of the EA.
	Section 9 states that the risk screening methodology will include a standard set of questions and answers. These questions and answers are a key element of the strategy and consideration should be given to including them in the Inspection and Strategy document.	Do not agree that they need to be included in the Strategy – They are a mechanism to implement the Strategy but may require change in the event of changes to guidance.	No change to Strategy

CONSULTATION RESPONDENT	COMMENTS MADE	DIRECTOR'S COMMENT	ACTION PROPOSED
6	Interest in receiving details of the scoring mechanism proposed to be used.	Risk screening method currently being tested	Information to be forwarded on completion of testing.
	Advises on the addresses for consultation and general policy issues and for site specific information	Noted	None necessary at this stage.
7 Nottinghamshire County Council Director of Environment (25.5.01) + (14.6.01)	Hopes to be able to respond as soon as possible but advises that this may fall outside the deadline due to staff holidays. Concern expressed that the Strategy makes clear that archaeological issues will be taken into account throughout the process of identifying Contaminated Land.		No action
	Section 8.2(c) Property (ancient monuments) – terms “listed” and “scheduled” used for Listed Buildings and Scheduled Ancient Monuments respectively. Not clear whether these are both being referred to. Also, new Scheduled Ancient Monuments are being created through EH’s Monuments Protection Programme. Ideally the strategy should contain the list of all sites and be checked and updated as part of the periodic review.	Noted	Amendment made to Section 8.2(c) to address this issue



CONSULTATION RESPONDENT	COMMENTS MADE	DIRECTOR'S COMMENT	ACTION PROPOSED
7	Recommended in section 9.2 it is made clear that intrusive investigations will not cause any unnecessary damage or harm to any aspect of the environment, including the historic environment.	The City Council already endeavours wherever possible to safeguard the historic environment and will endeavour to do so as part of the Strategy.	Amendment to Section 9.2 to clarify the point raised.
	Recommends that sites identified to undergo detailed risk assessment should be the subject of consultation of with the City archaeologist who will be able to advise on known or potential archaeological issues on the site, and advise if intrusive investigations or remediation works are required. A comment to this effect within the Strategy needed to make it clear that this aspect of the environment is being fully considered.	Noted and agreed	Strategy amended to include reference to this matter.
	8.1(a) Industrial History – recommended that this be altered to “Some sites identified by this process may be of significance for the industrial archaeological of the City”.	Noted	Amendment made to Strategy information.
8 Joynes Pike and Associates Limited (31.5.01)	Welcome the approach adopted, look forward to the implementation of the strategy; feel implementation will benefit the local community.	Noted.	None necessary

CONSULTATION RESPONDENT	COMMENTS MADE	DIRECTOR'S COMMENT	ACTION PROPOSED
8	<p>Consider the proposed timescale for risk screening is too long and recommend a tiered screening to ensure known or suspected problem sites are categorised at an early stage and can be addressed within the four year screening process.</p>	<p>However, the timescale is determined by resource availability.</p>	<p>No change to Strategy.</p>
	<p>More emphasise at an early stage to be placed on own department's expertise and local knowledge should be formalised to short circuit the screening process.</p>	<p>Department's local knowledge and expertise will be fully utilised during the implementation of the Strategy. Screening process must be thorough and systematic to be reliable and effective.</p>	<p>No change to Strategy</p>
	<p>Welcome prioritisation of former landfill sites but consider current industries should also be targeted e.g. scrap yards/ vehicle storage depots etc.</p>	<p>This issue is addressed in sections 6 and 9 of the Strategy.</p>	<p>No change necessary</p>
	<p>Impact of ground gases should be incorporated into the assessment (clarification on whether the risk assessment will apply in future to potential development sites with methane levels of &gt;1% would also be helpful)</p>	<p>This is incorporated. This matter is addressed by published guidance which has and will continue to be implemented.</p>	<p>No change to the Strategy required.</p>

CONSULTATION RESPONDENT	COMMENTS MADE	DIRECTOR'S COMMENT	ACTION PROPOSED
8	Use of title maps, Kelly Directories, Air Photos etc should be encouraged.	Noted	Amendment made to include all accessible available sources of information
	Expect many of the potentially contaminated sites to be special sites given the geology of the area.	Noted	No action required
	With 40% of the land owned by the council, anticipate initial assessment to have already been (informally) undertaken. Such assessment should be used initially to prioritise actions.	Much work on contaminated land has been done and held information will be fully utilised to implement the Strategy.	No change to Strategy required.
	Emphasis is on "shortest and lowest cost route" for remediation. Consider this may be applicable on some sites but advocate proven sustainable technologies to concentrate remedial works away from landfilling (dig and dump) to reduce overall risks to the environment from other matters such as traffic congestion, air pollution etc.	Noted and supported	Amendment to para 7.4.1 to address this matter.

CONSULTATION RESPONDENT	COMMENTS MADE	DIRECTOR'S COMMENT	ACTION PROPOSED
8	Housing sites constructed prior to 1974 should also be assigned high priority as they may have been constructed on filled land without suitable precautions.	Risk screening will be applied to all land in the City to determine sites where detailed risk assessment is necessary.	No amendment to Strategy necessary.
	We will be pleased to assist as required and included as "suitable persons" for proposed external studies.	Noted	No amendment to Strategy necessary.
9 Clifton and Wilford Area Committee (Area 8) (6.06.01)	Councillor Charlesworth grateful on behalf of the Area Committee for the opportunity to comment on the draft strategy but has no specific comment to make. However, requests that he and the Area Committee be kept fully informed on issues which identify actual or suspected contaminated land within the Area Committees' boundaries and asks that formal reports be submitted to him as part of any reporting process for possible inclusion on the Area Committee agenda.	Periodic reports about Contaminated Land will be made to Area Committees and the EPT Strategic Board. Site specific reports will be made as and when required.	No amendment to the Strategy is required.
10 Environment Agency (7.6.01)	Draws attention to the responsibility of the EA and advises that their comments are not exhaustive and it remains the City Council's responsibility to ensure the inspection strategy is factually, legally and technically accurate.	Noted	None necessary

CONSULTATION RESPONDENT	COMMENTS MADE	DIRECTOR'S COMMENT	ACTION PROPOSED
10	Section 3.2 – Role of Environment Agency – advised to be helpful to include reference to Appendix 5 where the special site definitions can be found.	Noted	Amendment incorporated in Section 3.2 and Appendix 5
	Section 4.6 – Groundwater - request clarification of the statement made from the Local Environment Agency Plan about aquifer vulnerability and enclose information from the Groundwater Vulnerability Map for the area to assist.	Noted	Amendments incorporated in Section 4.6
	Section 4.6 – Abstraction points – advise that this section should state whether the abstraction points highlighted from surface or ground water. Source protection zones are designated around public water supply abstractions and other sensitive supplies, not receptors. Some clarification about the meaning of the term “source protection zone” would also be helpful.	Noted	Amendments to Section 4.6 and to Glossary made.
	Section 7.2.3 – Land which may be a special site- makes reference to paragraph E28/29/30 of the statutory guidance which advises that the EA will be responsible for the site investigation where there is a reasonable possibility of a pollution linkage being present which will require the site to be designated as a special site. Advise the Agency would nominate a person to exercise the statutory powers on behalf of the local authority.	The statutory guidance will be reflected more specifically in the Strategy.	Amendment to Section 7.2.3 to address this point by deleting the last sentence of the first paragraph.

CONSULTATION RESPONDENT	COMMENTS MADE	DIRECTOR'S COMMENT	ACTION PROPOSED
10	<p>Section 8.1(j) – Closed Landfill sites            Advises the Agency hold information on closed landfills which may be worth checking at a later stage.</p> <p>Section 8.3 – Integrated Pollution Control – advise IPPC Legislation came into force in October 2000 and suggests that “including land contamination” is removed as IPPC Legislation only deals with contamination which had originated from the authorised process rather than general land contamination.</p> <p>Section 9.2 – detailed risk assessment - concerned about the suggestion in the penultimate paragraph that the investigation will cease once a significant pollutant linkage has been identified.            Make reference to paragraphs B.32(a) and B41(c) of the statutory guidance which states that each significant pollutant linkage should be considered separately as different people may be responsible for the remediation.</p>	<p>Already aware of this source of information</p> <p>Noted</p> <p>A balance has to be struck between determining that a site is contaminated and what the problems are and, carrying out a full site investigation which could be extremely demanding on resources.</p>	<p>No change to the Strategy proposed</p> <p>Amendment to paragraph 8.3(a) line 6 – ‘land from those processes.</p> <p>Amendment of Section 9.2 to address the points made.</p>

CONSULTATION RESPONDENT	COMMENTS MADE	DIRECTOR'S COMMENT	ACTION PROPOSED
10	Section 13.4 – Provision of information to the Environmental Agency - points out that the Agency is required to produce a State of Contaminated Land report from time to time or when the Secretary of State requests it and that it has not been determine whether this will be annually.	Statutory returns for Government purposes are usually required at least annually and this facility has therefore been incorporated within the Strategy	No change is required to the Strategy, although arrangements will be made to provide the necessary information as and when required by the EA.
11 Nottingham City Hospital (5.06.01)	No comments	None	None
12 Food Standards Agency (14. 06. 01)	Wish to be added to our list of consultees.	Already included as a Consultee	None necessary
13 Severn Trent Water Limited (20.05.01)	Wish to be consulted on draft Strategy document and happy to provide information to assist Strategy.	Noted	Copy of draft Strategy forwarded 1.6.01.
14 W S Atkins Consultants Ltd (12.6.01)	The Strategy Structure is logical and easy to follow.	None	None

CONSULTATION RESPONDENT	COMMENTS MADE	DIRECTOR'S COMMENT	ACTION PROPOSED
14	<p>Questions whether there are any specific targets for the Local Plan which could be expanded upon.</p> <p>Suggests Section 4 should perhaps include brief sections on other important land use, for example, agricultural land and woodland.</p> <p>Dominant soil series not mentioned in Section 4.</p>	<p>The Strategy is a prioritised risk based process – the timescale for which is outlined in Section 6.2. Re-development initiatives may well mean that some sites are remediated ahead of others due to external influences.</p> <p>The City of Nottingham is a very urbanised area with very little of this type of land within its boundaries</p> <p>Information contained within Section 4 is in accordance with guidance issued on the compilation of Contaminated Land Strategies and is considered to provide adequate information.</p>	<p>No amendment to the Strategy necessary.</p> <p>No change to the Strategy</p> <p>None</p>



CONSULTATION RESPONDENT	COMMENTS MADE	DIRECTOR'S COMMENT	ACTION PROPOSED
14	<p>Questions – What other sources of information have been used to identified Contaminated Land other than OS data mentioned in Section 6 and questions whether to refer to Section 8.</p>	<p>Section 8 does refer to information collection and identifies some of the main sources that will be used to obtain information as well as potential sources of contamination.</p>	<p>Written response to address this issue. No change required to the Strategy.</p>
	<p>Questions – Whether it is proposed to use GIS systems for the assessment at the risk screening stage.</p>	<p>GIS based risk screening tool has been developed in partnership with a private company and is currently being pilot tested.</p>	<p>Written response about this issue.  No change necessary to the Strategy.</p>
	<p>Questions – The comment included in Section 7.4.1 about the shortest remediation route been taken as his may preclude the use of cost effect remediation techniques (i.e. bio remediation).</p>	<p>Noted and supported.</p>	<p>Amendments to paragraph 7.4.2 to address this matter.</p>
	<p>Question – Whether stages 1 &amp; 2 in Section 9 will adopt a GIS approach.</p>	<p>GIS risk assessment tool has been developed for use as part of the Strategy.</p>	<p>Written response to be sent. No change necessary to Strategy.</p>



CONSULTATION RESPONDENT	COMMENTS MADE	DIRECTOR'S COMMENT	ACTION PROPOSED
14	Questions – Whether there is a reference to the system of scoring to be used for risk screening and ranking mentioned in Sections 9.1 and 9.2 respectively.	Once pilot testing has been completed, this information will be made available.	Written response on these issues. No amendments to the Strategy necessary.
	Offers demonstration of their GIS system design for collection and presentation of data for the production of Contaminated of Land registers.	Noted	No amendments to the Strategy necessary
15 Ministry of Agriculture, Fisheries and Food (15.6.01)	No comments to make other than MAFF has been absorbed in to a new department – The Department for Environment, Food and Rural Affairs (DEFRA)	Noted	None
16 Nottingham Chamber of Commerce and Industry (11.06.01)	Consider the proposed Strategy is very comprehensive, particularly in relation to obviously Contaminated sites e.g. former waste disposal sites.	Noted	No action necessary

CONSULTATION RESPONDENT	COMMENTS MADE	DIRECTOR'S COMMENT	ACTION PROPOSED
16	<p>One member expressed a surprise that sites which are contaminated, though which are not considered to have a "pollutant linkage" will not be included in the register of Contaminated Land. Thought it would have been possible to differentiate between sites which present different levels of risk whilst including all contaminated sites on the register.</p>	<p>There will be no register of Contaminated Land – only a register of action taken in relation to remediation.</p> <p>The risk assessment and prioritisation will identify level of risk and ensure that the worst affected sites are dealt with first. The approach included in the Strategy is in accordance with legislation and statutory guidance.</p>	<p>No amendments to the Strategy required.</p>



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6. British Geological Survey & Soil Survey and Land Research Centre, 1994, National Rivers Authority Policy & Practice for the Protection of Groundwater, Groundwater Vulnerability 1:100,000 Map Series Sheet 18, Nottinghamshire, HMSO.
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