

# BARNSLEY METROPOLITAN BOROUGH COUNCIL



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## CONTAMINATED LAND STRATEGY

### ENVIRONMENTAL HEALTH SERVICES

February 2002



## **EXECUTIVE SUMMARY**

Barnsley MBC has produced this Contaminated Land Strategy in order to comply with the requirements of Part IIA of the Environmental Protection Act 1990. It describes how the Authority will implement the new regime for dealing with contaminated land, and inspect land within the Borough for contamination

BMBC will use available information to identify potential contaminated sites based on previous usage. A risk assessment process will then be carried out in order to prioritise investigation. Once all necessary “desk study” information is collected and analysed, potentially contaminated sites will be inspected on a rolling programme, in order of priority. It is estimated that the inspection programme will begin in March 2002; however, any urgent sites may be dealt with sooner. The inspection programme is anticipated to be completed by January 2006. The Council will publish a public register containing details of regulatory action taken under Part IIA, containing all relevant information.

The process of site investigation and remediation of land will ensure that all land in the Borough is suitable for its current use, and does not pose unacceptable risks to people, the environment, water and property.



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## CHAPTER 1: INTRODUCTION

### 1.1 Background

It has been widely recognised that past industrial development has left a substantial legacy of land contamination. In addition, uses of land for mining, quarrying, and disposal of waste have also led to problems.

On 1<sup>st</sup> April 2000, new contaminated land legislation came into force for England, which provides an improved system for the identification and remediation of land deemed to be contaminated. It consists of the following components:

- Part IIA of the Environmental Protection Act 1990
- DETR Circular 2/2000 (statutory guidance)
- The Contaminated Land (England) Regulations 2000

The definition of contaminated land applies only to land causing unacceptable risks to human health or the wider environment, assessed in the context of the current use and circumstances of the land.

It is expected that many land contamination problems will continue to be dealt with through planning and development controls, however the new legislation provides a mechanism to require the remediation of land where no development is taking place.

The new regime provides an explicit statutory definition of contaminated land, which focuses on risks arising from the current use and conditions of the land. Local authorities have a duty to inspect their areas for contaminated land and ensure that it is remediated to a suitable for its present use. Detailed guidance is provided for assigning liabilities, based on the “polluter pays” principle.

The Statutory Guidance (Circular 2/2000) provides a framework against which local authorities must develop a strategy for considering and addressing land contamination within their area.

### 1.2 National Objectives

The main purpose of the new contaminated land regime is to provide an improved system for the identification and remediation of contaminated land, where the contamination is causing unacceptable risk to human health or the wider environment. The regime adopts a risk based “suitable for use” approach to remediation, and applies the “polluter pays” principle to apportionment of liability. In this context, the Governments objectives with respect to contaminated land are;

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

These objectives underlie the “suitable for use” approach to the remediation of contaminated land, which the Government considers is the most appropriate approach to achieving sustainable development in this field.



The “polluter pays principle” means that, where feasible (and subject to certain limitations), any person who caused or knowingly permitted the contamination originally, will be the “appropriate person” to pay for and undertake remediation. However, where this is not possible, then the responsibility passes to the current owner or occupier of the land.

### **Objectives of the New Regime:**

The objectives of the new regime are:

- to improve the focus and transparency of the controls in relation to contaminated land, ensuring that the Council takes a strategic approach to problems of land contamination;
- to enable all problems resulting from contamination to be handled as part of the same process;
- to increase the consistency of approach taken by different local authorities;
- 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 these objectives, significant emphasis is placed on voluntary remedial action.

## **1.3 Barnsley MBC Objectives**

The Councils’ Corporate Objectives are highlighted through its mission statement of, “To improve the social, economic and environmental well-being of Barnsley by working with, and on behalf of all those who live, invest or work in the Borough.”

The Councils Strategic Goals are identified as,

- Lifelong Learning
- Wealth Creation
- A Safer and Healthier Community
- Improving the Environment, Housing and Accessibility

With the exception of the first, the remaining goals will all be supported through the implementation of the Part IIA regulation concerning contaminated land. The council is committed to promoting sustainable development, which, in practical terms, means reducing pollution and the consumption of raw materials and energy to levels that minimise damage to the local and global environment, and thus ensure their long-term protection. This process links into contaminated land and Part IIA, as they also look to minimise pollution effects and bring land back into use for future development.

It is recognised that the development of a strategy and its implementation must be accountable and will be subject to the requirements of the access to the Environmental Information Regulations 1992.

It is also envisaged that the regime will be implemented following consultation with and consideration of the views of other stakeholders, businesses and community groups and involve such groups in the consultation process whenever possible.

## **1.4 Regulatory Context**



Local Authorities are the main regulators responsible for this regime; however, the Environment Agency also has a specific role to play.

### **The Regulatory Role of Barnsley Metropolitan Borough Council**

Under Part IIA, Local Authorities have 12 key responsibilities<sup>1</sup>

1. **Prepare an inspection strategy** setting out how the Authority intends to inspect its area for the purpose of identifying contaminated land.
2. **Determine whether particular areas of land are contaminated land** in accordance with the Secretary of State's guidance.
3. **Decide whether any contaminated land is also required to be designated as a Special Site** in consultation with the Environment Agency as appropriate.
4. **Undertake immediate remediation action** where there is imminent danger of serious harm.
5. **Decide on the applicability of other regimes** and whether they provide a more appropriate means of control than Part IIA.
6. **Identify and notify those who may need to take action** in relation to contaminated land or a Special Site.
7. **Determine who may be liable** to bear responsibility for remediation.
8. **Consult with the relevant parties on what remediation action is required** and how it is to be carried out.
9. **Serve a Remediation Notice** unless restrictions apply.
10. **Monitor the effectiveness** of any remediation carried out.
11. **Maintain a public register** containing details of regulatory action taken under Part IIA and through other means.
12. **Report progress under Part IIA to the Environment Agency** to allow preparation of a National Report on Contaminated Land.

<sup>1</sup> Taken from the Environment Agency Guidance Note

Local authorities must act in accordance with guidance issued by the Secretary of State in respect of these requirements and statutory guidance has been published by the Department of The Environment, Transport and the Regions (circular 02/2000).

A strategic approach to inspection of land within the Borough is required, in order to target those areas that are considered to represent the greatest risk first. The Council is required to set out its approach for inspection as a written strategy, which must be formally adopted and published.



## Role of the Environment Agency

The main roles of The Environment Agency are:

- the provision of information and advice, including site specific guidance, to local authorities
- the regulation of Special Sites (see definition below)
- the preparation of a national report on the state of contaminated land

### 1.5 Definition of Contaminated Land under Part IIA

Under Section 78A (2) of Part IIA, contaminated land is defined as follows:

“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 significant possibility of such harm being caused; or
- (b) pollution of controlled waters is being, or is likely to be, caused (see appendix 2).”

### Principles of Pollutant Linkages

The statutory guidance follows established approaches to risk assessment, including the concept of **pollutant linkage** to determine if land is contaminated. A **pollutant linkage** is the relationship between a **contaminant** (i.e. the substance which has the potential to cause harm) and a **receptor** (i.e. something or someone that may be adversely affected by the contaminant), by means of a **pathway** (i.e. a route by which the contaminant can reach the receptor).

Unless all three elements are identified in respect of a particular site, the land will not be identified as contaminated land.

There are two steps in applying the definition of contaminated land.

The first step is for the local authority to satisfy itself that a contaminant, a pathway, and a receptor have been identified in respect to any land.



A **CONTAMINANT** is a substance which is in, on or under the land and which has the potential to cause harm or pollution of controlled waters.

A **PATHWAY** is one or more routes or means by, or through, which a receptor is being or could be exposed to or affected by a contaminant

A **RECEPTOR** is either



- a living organism, a group of living organisms, an ecological system or a piece of property which
  - (a) is defined in Table A of the Statutory Guidance (see **Appendix 1**) as a type of receptor (includes human beings, crops, animals, buildings, nature reserves) and
  - (b) is being or could be harmed by a contaminant; or
- controlled waters which are being, or could be polluted by a contaminant.

The second step in applying the definition of contaminated land is for the local authority to satisfy itself that both:

- a) such a pollutant linkage exists in respect of a piece of land; and
- b) the pollutant linkage
  - is resulting in significant harm being caused to the receptor in the pollutant linkage,
  - presents a significant possibility of significant harm being caused to that receptor, or
  - is resulting in, or is likely to result in the pollution of the controlled waters which constitute the receptor.

Significant Harm means any harm which is determined to be significant in accordance with Chapter A of the Statutory Guidance (that is, it meets one of the descriptions of types of harm in the second column of Table A – see Appendix 2).

A site can only be determined as Contaminated Land if at least one **‘SIGNIFICANT POLLUTANT LINKAGE’** exists.

## Risk Assessment

The mere presence of a contaminant or former contaminative use does not mean that land is contaminated under the definition of the legislation, unless it presents a significant risk to a relevant receptor.

Risk is defined as a combination of:

- the probability or frequency of occurrence of a defined hazard and
- the magnitude (including the seriousness) of the consequences.

The aim of this type of approach is to protect human health and the environment without unnecessarily wasting finances on cleaning up sites that do not pose a significant risk.

The need for and extent of any remediation will be based on a site-specific risk assessment of the facts.

## 1.6 Special Sites

Certain contaminated land sites are regulated by the Environment Agency. These “special sites” are defined in the Contaminated Land (England) Regulations 2000. (See Appendix 5) They include the following:



- land which is contaminated by waste acid tars
- land which has been used for the purification of crude petroleum or of oil extracted from petroleum
- land which is causing a specific impact on controlled waters
- land which was formerly a nuclear site
- land which has been used or occupied for naval, military or air force purposes
- land used for the manufacture, production or disposal of chemical weapons or biological agents and
- land designated under the Atomic Weapons Establishment Act 1991.

## **1.7 Interaction with other Regulatory Regimes.**

There are situations where existing regulatory regimes can be used to address land contamination. The most important of these are controls via planning, water pollution powers, waste management and Integrated Pollution Prevention and Control (IPPC) legislation. The statutory nuisance controls previously used to address contaminated land issues should no longer be used.

Barnsley MBC recognised that several departments were involved in environmental protection several years ago; thus, a working party was established to provide a corporate steer on the Council's obligations within these areas. Wide ranges of subjects have been considered, including how the authority would implement Part IIA (see section 4.3). The systems and structures the Council has introduced to fulfil its obligations in respect of contaminated land have been derived from this working party. The group will continue to discuss relevant issues, and will provide support in the implementation of the key areas of the strategy.

### **Planning**

Contamination of land is a material planning consideration, and it is anticipated that the redevelopment of brownfield sites with associated planning controls will remain the primary mechanism for dealing with contaminated land. Remediation of a site as part of a planning condition will be dealt with via planning controls rather than Part IIA legislation.

### **Water Pollution**

The Environment Agency has powers to deal with harm to controlled waters being caused by contaminated land, under the Water Resources Act 1991.

### **Waste Management**

Waste disposal and processing sites are subject to licensing controls under the waste management licensing provisions of the Environmental Protection Act 1990. These may be used for dealing with contamination that results from a breach of an operating licence.

### **Integrated Pollution Prevention and Control Regime.**

Certain processes prescribed under Part 1 of the Environmental Protection Act 1990 are required to meet the pollution control regime. This includes the specific requirement that permits for industrial plants and installations must include conditions to prevent the pollution of soil.



## **Building Control**

In accordance with the Building Regulations 1991, officers are required to take account of land contamination. They must assess what measures are required to safeguard against specific contaminants, which may have adverse effects on buildings, building materials and services. However, regulations only require Building Control to take account of where contamination may directly contact actual buildings and services as opposed to over the whole development site.

### **1.8 Requirements of the Strategic Approach.**

The statutory guidance sets out the underlying principles to be contained within a contaminated land strategy. The purpose of the strategy is to set out a strategic approach as to how the local authority will carry out the inspection of its area. The approach is required to:

- be rational, ordered and efficient
- be proportionate to the seriousness of any actual or potential risk
- ensure that the most serious problems are located first
- prioritise resources to areas of greatest potential risk
- contain procedures for effective liaison with other regulatory bodies
- contain procedures for responding to information and complaints from the public, businesses and voluntary organisations.



## CHAPTER 2: CHARACTERISTICS OF THE BARNSLEY AREA.

### 2.1 Geographical Context

The Metropolitan Borough of Barnsley covers an area of 32,863 hectares or 127 square miles. The Borough extends for twenty-three miles from the Pennines in the west to the Dearne Valley lowlands in the east. Although traditionally associated with heavy industries, 60% of land is occupied by agricultural holdings. The Borough can be roughly divided into two broad parts. To the west of the M1 motorway is a very scenic rural area stretching into the Pennine moorlands. East of the motorway is a largely urban industrial area, made up of towns and former mining villages, where 9 out of 10 Barnsley people live. 73% of the Borough is classified as greenbelt.

Barnsley Metropolitan Borough Council is one of the four South Yorkshire Authorities. The neighbouring local authorities are Rotherham Metropolitan Borough Council, Doncaster Metropolitan Borough Council, Sheffield City Council, Kirklees Metropolitan Council, Wakefield Metropolitan Borough Council, and High Peak District Council.



### 2.2 Population Distribution

The population of Barnsley is 228,000, about 2% higher than 1991. The average age of the population is rising. The proportion of people over retirement age was 14% in 1971. It has now risen to 18%. During this period, the number of young people fell from 27% to only 20%.



The distribution of the population is heavily weighted in the eastern half of the borough, with 90% of the total residents living in this area. About 81,000 people live in Barnsley Town, and there are 104,000 in the surrounding towns and villages. To the east a further 23,000 live in the Dearne area, and the remaining 21,000 live in the western rural area that covers over half of the borough.

It is estimated that by 2011, there will be a small population decrease of approximately 2%. However, between 1998 and 2016 it is estimated there will be a requirement for an extra 14,600 new dwellings. As the number of households increases new land will need to be brought forward to meet the requirement.

The Council has set an objective of securing 49% of all new dwellings to be developed on brownfield sites. This is the central issue to be addressed in the review of the statutory Barnsley Unitary Development Plan (UDP). It will be essential that before any potentially contaminated brownfield site is identified for use for housing, sufficient is known about potential contamination to enable a judgement to be made as to whether or not there are likely to be exceptional development costs in bringing the land forward.

### **2.3 Land owned by Barnsley Metropolitan Borough Council**

The Council, and its predecessors, currently own or have owned significant land and property holdings within the Borough. The current portfolio of council owned land and properties comprises:

- 25000 Houses (approx.)
- 106 Schools and associated grounds
- 228 Buildings delivering direct services
- 82 Allotment Sites
- 30 Car Parks

### **2.4 Key Property Types**

Barnsley contains a number of buildings and locations of historical and architectural interest. There are:

- 660 **Listed Buildings**
- 19 **Ancient Monuments**

### **2.5 Protected Ecological Receptors**

Certain ecological systems are defined in the legislation as requiring specific protection, and Barnsley has the following:

#### **Sites of Special Scientific Interest (SSSI)**

- Dark Peak (south Pennine Moors)
- Pye Flatts Meadow
- Carlton Main Brickworks, Grimethorpe
- Stairfoot Brickworks
- Little Don Stream section, Langsett

#### **Special Protection Areas (SPA)**

- Dark Peak Moors



## **Special Areas of Conservation (SAC)**

- Dark Peak Moors

Alongside these statutorily recognised ecological receptors, Barnsley has 50 Natural Heritage Sites (SSI's) and 13 Regionally Important Geological Sites (RIGS)

## **Peak District National Park**

The Peak District National Park covers an area on the western edge of the borough, where the Park Authority has the responsibility for planning decisions.

## **2.6 Surface Waters**

The catchment network of Barnsley is dominated by the main arteries of the Rivers Don and Dearne, and their tributaries such as the River Dove, Cudworth Dike and Cawthorne Dike. These waters start in the rural western region of the borough and flow in a general South East direction. Several of the tributaries that supply these rivers have been dammed, with there being over 10 reservoirs of varying capacity.

The quality of the water bodies in Barnsley MBC ranges from good on stretches of the Don and Dearne, to poor on sections of the Dearne and Cudworth Dike. Localised problems are known to exist on particular stretches of water. Significant contamination can occur from old mining sites, and these may cause surface and groundwater problems. A joint initiative by the Coal Authority, Environment Agency, Hepworth Building Projects and Barnsley MBC was created in the late 1990's to deal with such a problem at the former Bullhouse Colliery workings, near Penistone. Ochreous discharge, caused by water building up in the colliery workings, was ranked sixth worst in England and Wales. This water is now being diverted to a treatment facility and on to a reed bed filter, before finally being allowed back into the River Don.

## **2.7 Geology of the Area**

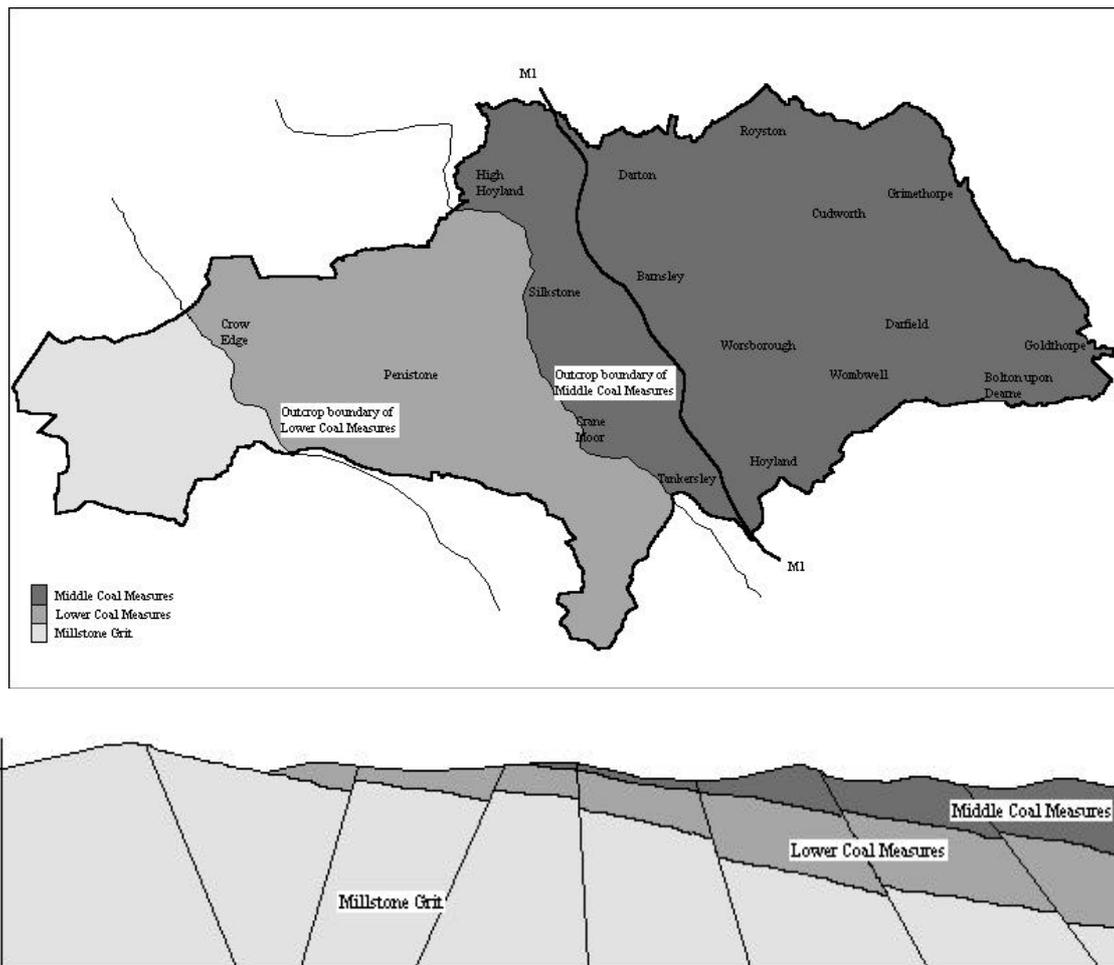
Geology influences whether a contaminant is likely to remain close to the source or migrate, ie whether a pathway is present. Certain formations, such as aquifers, are potential receptors for contamination, and some formations may even present a source of contamination, for example acid waters rich in iron from old coal mine workings.

Barnsley has a long tradition of Coal mining due to the main geological characteristics of the borough. Sequences of Sandstones, Shales, Mudstones, and Coal Seams make up the Middle Coal Measures, which underlie the eastern half of the district. These layers dip generally to the east, and often can be heavily faulted. These fault lines run broadly in either a North West - South East direction or North East – South West. As we move westerly across the authority, the Middle Coal Measure give way to the Lower Coal Measures in the area around Penistone. As we progress further into the Upper Pennines, the Millstone Grit series begin to emerge as the lower coal measures cease.

The older bedrocks above have been covered in some areas by new deposits. Peat beds cover the uplands plateau, head and landslip materials occur on the valley sides. Isolated patches of boulder clay occur in the district. Alluvium and River Terrace deposits are also found in varying thickness throughout the river valleys.



**Figure 2 Outline Solid Geology of Barnsley MBC - Map and Cross Section**



## 2.8 Hydrogeology of the Area

The Coal Measures, though classed as a minor aquifer by the Environment Agency, may provide good borehole yields and many industrial supplies may exploit them. The major sandstones are the aquifers, but groundwater flow is extensively affected by the faulting and fissuring of the rocks, and also by the results of coal mining and associated dewatering activities. Because of the complex, and often poorly understood hydrogeology, it is impossible to subdivide the coal measures into aquifers and non-aquifers, thus it is given an aquifer status.

The Millstone Grit is also classified as a minor aquifer, and a locally important source, although heavy faulting may reduce its effectiveness as an aquifer.

Significant contamination can occur on many old mining sites, especially where there were coking plants and gas works; these may cause surface and groundwater problems. Deep mining has artificially lowered water tables to exploit coal at deeper levels. As dewatering from deep mines ceases, the water table will rebound and come into contact with pyrites, which has been exposed to the air due to mining activities. The subsequent chemical reactions form sulphuric acid in the mine water and this releases heavy metals into the water table. This poor quality water is likely to find its way to the surface and cause contamination of surface waters. The Coal Authority recognises this as a severe problem, and is taking



steps to clean up the discharges from former colliery sites. Three clean up projects are already in operation at Penistone, Woolley and Silkstone, in an attempt to improve stretches of the Rivers Don, Dearne and Silkstone Beck respectively

Due to the extensive area of the borough that is underlain by Coal Measures, there is potential for sites to be affected through the migration of mine gases. Methane, Carbon dioxide and other gases are naturally occurring within the fractured strata. During coal mining operations, these are usually captured for safety reasons. When a colliery closes, these gases may continue to emit for many years giving rise to safety and environmental concerns. The emission of mine gas through the underlying strata has already caused problems in Barnsley MBC, and is expected to continue posing a risk in the future. Due to the detection of methane in the area of Bedford Terrace, Barnsley, the Council was obliged to install permanent control measures and automatic monitoring equipment in the 1980's. This came in the form of ventilation trenches to the front and rear of the properties, and automatic monitoring points with emergency alarms within property walls. The monitoring system still operates today on a 24-hour basis.

As dewatering from deep mines ceases, it is expected that water table will rise back to natural levels. As water recovery takes place in the coal workings within the concealed coalfield, the mine gas will be pushed up via the coal measure rocks and discharged at their outcrops. Thus, Barnsley MBC expects mines gas emissions to cause further problems within the borough.

## **2.9 Known Information on Contamination**

The borough has a long tradition of industrial activities; especially in coal mining and its associated industries. The large-scale decline of this area within the 1980's has led to large areas of derelict land, with Barnsley MBC having the second largest amount of derelict land in the country. Due to the activities that have taken place on these sites, there is every prospect of contamination may be encountered.

Economic regeneration policies have targeted these sites for reclamation and redevelopment, over the last 15 years, around 1000 hectares of derelict land has been reclaimed. Around £10 million has been invested by Barnsley MBC into the reclamation of land over the last 5 years. Currently it has been estimated that there are approximately **600** hectares of derelict land left within the borough. Working alongside English Partnerships, Yorkshire Forward and Barnsley Development Agency, the Council will continue to be pro-active with these developments in regard any contamination issues that need addressing. However, with the recent changes in government funding policy, this amount is unlikely to be matched in the future.



## CHAPTER 3: AIMS AND OBJECTIVES OF THE STRATEGY

### 3.1 Introduction

This written strategy sets out how Barnsley MBC will comply and enforce Part IIA of the Environmental Protection Act 1990. This strategy document will highlight how the council intends to inspect its area for 'contaminated land', in its attempts to achieve environmental improvements. The strategy will have regard to the Council's mission statement and its' objective of sustainable development. This document will be freely available to all Council Services and the public to inspect and comment on.

### 3.2 Aims of Barnsley MBC

The aims of the Council with respect to contaminated land are to:

- Ensure that land is suitable for its current use
- Prevent further 'contaminated land' being created
- To address the liability issues associated with the Council's holdings
- Encourage voluntary remediation; and
- Encourage the re-development of brownfield sites and reclamation of derelict sites.
- To encourage, as far as possible, voluntary remediation

### 3.3 Objectives of the Strategy Document

- To detail the strategic approach to be followed for the inspection of land in accordance with paragraph B.9 of DETR Circular 02/2000 (see section 1.2.6).
- To produce, formally adopt and publish a written contaminated land strategy.
- To ensure compliance with and enforcement of Part IIA of the Environmental Protection Act 1990.
- To make information freely available to all relevant sections of the Council to enable the achievement of the objective of securing 49% of all new dwellings be developed on brownfield sites.
- To avoid any unnecessary blight of land.
- To provide information to the Environment Agency for its report on Contaminated Land.
- To prevent the creation of 'contaminated land' through preventing the introduction of new receptors onto a site without prior suitable remediation taking place.
- To make information available to all relevant sections of the Council
- To provide a mechanism whereby the strategy is reviewed on a regular basis to allow for changes in Guidance etc.
- To identify potential sources of contamination, pathways and statutorily defined receptors.
- Justify inspection programmes of priority areas.
- To deal with the issue of contaminated land in an open and transparent manner.
- To liaise efficiently and exchange information with other Council Services and stakeholders, particularly the Environment Agency.



## CHAPTER 4: PRIORITY ACTIONS AND TIMESCALES

With reference to the aims and objectives of this Strategy, and building on work already carried out in this area, the following work programme is proposed:

### 4.1 Dealing with urgent sites

If, during the process of implementing the strategy, the council strongly suspect that a site may be causing significant harm, then action will be taken to address these problems on a priority basis

**Timescale:**

As and when necessary

### 4.2 Production of the Strategy Document

The following stages are required for the production of the Contaminated Land Strategy document:

- production of the draft consultation strategy
- consultation with the relevant stakeholders
- amendments to the draft strategy
- formal Council adoption and publishing of the strategy
- submission of the strategy to the Environment Agency

**Timescale:**

Due to delays in the production of the strategy, the draft document is expected to be released for consultation in late October 2001. Formal publication and adoption of the strategy will take place in early 2002.

### 4.3 Development of Contaminated Land GIS and Database

In May 1999, Peter Knight, a PhD student at the time, published a report on the procedural implications for Barnsley MBC in performing its statutory role in the implementation of the Environmental Protection Act: Part IIA. Barnsley MBC commissioned this report, with the purpose of identifying potential approaches and cost implications for the authority. As part of this study, an assessment of the information that would be required for the identification of contaminated land was carried out, along with a review on how this information should be stored and interpreted.

Barnsley MBC is using MapInfo as the Geographical Information System (GIS) to allow the assessment of the data that will derive from the work. The report highlighted that a vast amount of data was already held within the Council that will assist in the assessment of sites with regard to contaminated land. In order to utilise these datasets, BGS / Lovell Johns were contracted to work alongside Barnsley MBC to deliver the necessary data sets required to implement Part IIA.



A working programme was agreed to deliver the necessary information over a two-year period (see Appendix 7). This programme included:

1. Data audit of relevant information held in house.
2. Transfer and validation of Landfill site information.
3. Provide polygon data of potential receptors, ie schools, residential areas etc
4. Analysis of former land use, loaded as polygon data and attribute data.
5. Input of geological data at 1:10000 scale including solid geology, superficial deposits and man made ground.
6. Hydrogeological data including water well and aquifer vulnerability.
7. Data capture of Site Investigation reports held in house.

From this a customised product meeting the needs of the Part IIA legislation will be developed incorporating the necessary functionality and customisation tools to enable a number of querying and reporting functions. The development of this system is planned over specific stages to build up the information regarding source, pathways and receptors within the borough. Details of the datasets, which will be incorporated on the GIS, can be found in 5.3.

**Stage 1** (Jan 2001- July 2001)

Preliminary datasets to be acquired. Historical mapping and landfill site register to be incorporated into the GIS.

**Stage 2** (Aug 2001- Nov 2001)

Potential Receptors, geology and hydrogeology added to the GIS.

**4.4 Prioritisation of sites for detailed inspection. (Stage 3)**

Once all the potentially contaminated land sites have been identified, they must be ranked in priority order according to the seriousness of the potential for significant harm to be caused to receptors. BGS are currently developing a risk assessment tool in consultation with BMBC staff, to produce a priority list of sites for inspection.

The Risk Assessment model provides a qualitative method of site prioritisation. For each source, pathway and receptor a score is assigned. The model will then total these scores for sites where overlap occurs suggesting possible pollutant linkages. Thus the higher the score the greater the potential problem and these sites will be inspected first.

For sites that have several former uses on them the score that will be assigned in the risk assessment model will be that of the former use deemed to have the greatest pollution potential. This approach will also be adopted for sites that have more than one receptor or pathway. During the prioritisation exercise, receptors will be ranked in a priority order of:

1. Humans
2. Controlled Waters
3. Ecosystems
4. Property

This will ensure that the sites are assessed based on the maximum potential for harm to be occurring.



The model allows further information to be incorporated into the assessment. Should information become known that remediation action has already taken place, this can be fed back into the model and allow a reappraisal of the site information to be carried out. It is envisaged that this reappraisal will be happen on a number of occasions as further information is collected for sites.

**Timescale:**

The prioritisation exercise is planned to take place between April 2002 and July 2002.

#### **4.5 Detailed Data Assessment**

Once the initial ranking process has been carried out, sites will be assessed in order of their priority ranking. Detailed data assessment will involve

- Collation and assessment of documentary information, or other information from other bodies
- A visit to the particular site for visual inspection to assess validity of desk study data.

At this point it may be apparent that the land could not be determined as contaminated land, and the investigation would not require any further site inspections.

**Timescale**

Detailed data assessment of sites is programmed to begin in July 2002, and to be completed by January 2006.

#### **4.6 Detailed Site Inspections**

If it is still not possible to determine whether a site is or is not statutorily classed as contaminated land after the detailed data assessment exercise, then a site inspection will be required. This investigation will involve:

- A visit to the particular area for limited sampling, such as surface deposits;

If further evidence is required:

- An Intrusive investigation of the land, including exploratory excavations, will be carried out to provide a detailed assessment of the site.

For further details regarding the prioritisation of sites and site inspections, see section 5.5 - 5.6.

Sites designated as contaminated land will be dealt with accordingly.

**Timescale:**

Currently, the number of sites that will require a detailed site investigation is not known. However, this should become clearer as progress through the data assessment exercise is made.



## **CHAPTER 5: PROCEDURES FOR IDENTIFYING POTENTIALLY CONTAMINATED LAND**

### **5.1 Internal Management Arrangements for Inspection and Identification**

Within Barnsley Metropolitan Borough Council, Environmental Health Services has responsibility for implementation of Part IIA of the Environmental Protection Act 1990. Within Environmental Health Services, the Pollution Control Section (and in particular the Contaminated Land Officer) is specifically responsible for dealing with contaminated land issues.

The Contaminated Land Officer will be responsible for implementing the programme of inspection of potentially contaminated sites, and for updating and maintaining the records.

Enquiries can be made to:

The Contaminated Land Officer  
Barnsley MBC  
Environmental Health and Trading Standards  
Central Offices  
Kendray Street  
Barnsley  
S70 2TN

Tel 01226 772456

Fax 01226 772498

e-mail [JohnScott@barnsley.gov.uk](mailto:JohnScott@barnsley.gov.uk)

### **5.2 Considering Local Authority interest in own land**

Barnsley Metropolitan Borough Council has considerable land holdings within the district. The previous land holdings of the Authority will also need to be considered with regard to potential residual liabilities. Information on land ownership is held by the Asset Management Team, which has been set up as part of the Property and Procurement section. Data on the authorities land ownership will be incorporated into the GIS to aid the identification of its responsibilities. Procedures are already established to ensure that the Authority identifies the potential liabilities associated with land within this ownership. Working corporately, these sites will be investigated and dealt with accordingly.

Council Land will not be given priority for inspection above any other land – all sites will be prioritised for inspection based on risk alone. As a responsible landowner, the Council is addressing land contamination through its asset register. Unless urgent, sites will undergo detailed inspection as part of the routine priority area exercise.

### **5.3 Information Collection**



Sources of information used for the purposes of identification of potentially contaminated sites will include:

<b>Dataset</b>	<b>Source</b>	<b>Remarks</b>
OS Landline	Ordnance Survey	Current land use
Digital Historical Maps	South Yorkshire Mining Advisory Service (SYMAS) / BGS	Potential contaminative sources
Geological Maps	SYMAS / British Geological Survey (BGS)	Potential sources, pathways and receptors
Hydrogeological Data	BGS	Potential pathways and receptors
Aquifer vulnerability	BGS	Identification and sensitivity on receptors
Source Protection Zones	Environment Agency	Receptor clarifications
Discharge Consents	Environment Agency	Potential sources
Licence Abstraction	Environment Agency	Potential receptors
Private Water Supplies	Barnsley MBC	Potential receptors
Closed Landfill Sites	Barnsley MBC	Potential sources
Petrol Stations / storage facilities	Barnsley MBC	Potential sources
Ecological Receptors	Barnsley MBC / English Nature	Potential receptors
Ancient Monuments	Barnsley MBC / English Heritage	Potential receptors
IPC Sites	Barnsley MBC	Potential sources
Waste Management Licences	Environment Agency	Potential sources
Mineshaft and Colliery spoil data	SYMAS / Coal Authority	Potential sources and pathways
Surface Water Quality	Environment Agency	Potential sources, pathways and receptors
Derelict Land Survey	Barnsley MBC	Potential sources
Previously Developed Land	Barnsley MBC	Potential sources, pathways and receptors
Mineral Extraction Sites	Barnsley MBC	Potential sources
Allotments	Barnsley MBC	Potential receptors
Schools	Barnsley MBC	Potential receptors
Garage Sites	Barnsley MBC	Potential sources
Recreation Areas	Barnsley MBC	Potential receptors
Other Barnsley MBC Land Ownership	Barnsley MBC	Potential Liability
Barnsley UDP	Barnsley MBC / Lovell Johns	Future Land Use policies



From time to time, the Council may receive enquiries or information regarding contaminated land. It is the intention of Barnsley Environmental Health Services to respond to these enquiries. Upon investigation, information may be forthcoming which could impact on the approach to inspection laid down in this document.

### **Confidentiality**

All persons requesting or supplying information will be asked for their name, address and telephone number, and the details of the site in question. These details will not be passed on to any other external bodies or persons.

### **Anonymously Supplied Information**

The public will from time to time supply information regarding pieces of land. Environmental Health Services uses its discretion in investigating alleged nuisances based on anonymously supplied information, and this practice will continue in dealing with contaminated land issues.

### **Anecdotal evidence**

Any anecdotal evidence provided to the council relating to contaminated land will be noted, but no designations of contaminated land will occur without an investigation into this information. In all cases, the Contaminated Land Officer will use knowledge and experience to decide what, if any, investigation is required following the receipt of a complaint or information.

## **5.5 Information Evaluation**

As previously mentioned in sections 4.3, 4.4 and 5.3, all of these data sources are being to be incorporated onto a GIS. As part of the contract between the Authority and BGS / Lovell Johns to capture data regarding Sources, Pathways and Receptors (see Appendix 7), a site prioritisation model is being developed to evaluate all of this data.

As the information for potential sources, pathways and receptors is collected, they are categorised into specific areas. The five categories of receptor (human beings, ecological systems, property in the form of buildings, property in the form of crops and livestock and controlled waters) will be given a scoring number reflecting the sensitivity. Each land use that may contain contaminants will be similarly assigned a scoring number to reflect the likely hazards that may exist due to the typical contaminants associated with the particular land use (see Appendix 4). The pathway data will be similarly scored.

The Site Prioritisation model will then correlate these scores on a site-specific basis, considering potential risks to receptors within any chosen search radius. For each site that the model identifies a pollutant linkage, ie that there is a source, pathway and receptor on the site, a risk score will be calculated. All of the information on sources, pathways and receptors that is being placed on to the GIS is being assigned a risk score. These scores have been carefully derived to determine the possible risks that may be present. The model then calculates a total score made up from the value of the **source, pathway and receptor score**. The higher the number, the greater will be the potential for significant harm or pollution of



controlled waters. Those sites with the highest scores will be prioritised first for a more detailed investigation and assessment.

## 5.6 Methods of Site Assessment and Inspection

Following the prioritisation of the potentially contaminated sites, based on an initial risk ranking, detailed assessment will be carried out on the priority list to assess the likelihood of a pollutant linkage existing (see section 4.5 - 4.6).

- To determine in accordance with the guidance, whether that land appears to be contaminated land (i.e. that the pollutant linkage is significant); and
- To decide if the land requires designation as a special site.

Detailed inspection will progress through the following steps until enough evidence is available to decide if a site can, or cannot, be determined as contaminated land:

1. A **desk-study** to gather information and assess further the documentary evidence
2. A **site visit** for a visual inspection to confirm data assessed in the desk study.
3. A **site walkover** to perform some limited sampling to substantiate the presence of pollutants.
4. An **intrusive investigation** involving the sampling and analysis of soils and/or groundwater. This should only be necessary where an owner/responsible person does not accept the evidence already obtained and further proof is required.

Reassessment of the data held within the GIS will take place to consider new information that may affect the risk assessment model. The above steps will provide information to confirm that the linkage no longer exists as the source, receptor or pathway may not be present, or that previous action has been carried out to remove a particular component of the linkage.

### Inspecting Particular Areas of Land

Any detailed inspection of a piece of land, either in the form of a Walkover Survey or an Intrusive Investigation, will comply with the procedures set out in paragraphs B.19-25 of the statutory guidance. At this stage, it may be necessary to be accompanied by the site owner or occupier whilst the walkover survey is carried out. Such persons will be contacted prior to this to discuss the Council's concerns and to negotiate access on to the site. This process of open discussions with the owners of land, or the appropriate persons, should help aid the process of identification and remediation of contaminated land.

### Section 108 Powers of Entry

If access cannot be negotiated, Barnsley MBC has statutory powers of entry for the purposes of this legislation under the Environment Act 1995, section 108(6), and schedule 18.

The authorised person has to give the occupier of the premises at least 7 days notice of the time of the proposed entry, unless there is an immediate risk of serious pollution or harm to health, onto the site where:

- the premises are used for residential purposes, or;



- inspection will involve the use of heavy equipment (e.g. drilling rigs, excavators, probing devices etc.)

Before the local authority carries out an inspection using statutory powers of entry, it should be satisfied, on the basis of any information already obtained that:

- a) *“in all cases, that there is a reasonable possibility that a pollutant linkage (as defined in Chapter A of DETR 02/2000) exists on the land; this implies that not only must the authority be satisfied that there is a reasonable possibility of the presence of a contaminant, a receptor and a pathway, but also that these would together create a pollutant linkage; and(b) further, in cases involving an intrusive investigation, “*
- b) *“(i) that it is likely that the contaminant is actually present, and  
  
(ii) given the current use of the land as defined at paragraph A.26, that the receptor is actually present or is likely to be present.”*

However, the local authority should not carry out any inspection using statutory powers of entry which takes the form of an intrusive investigation if:

- a) *“it has already been provided with detailed information on the condition of the land, whether by the Environment Agency or some other person such as the owner of the land, which provides an appropriate basis upon which the local authority can determine whether the land is contaminated land in accordance with the requirements of the guidance in this Chapter; or “*
- b) *“a person offers to provide such information within a reasonable and specified time, and then provides such information within that time.”*

## **The Desk Study**

Much of this work will have already been carried out during the prioritisation exercise, but the information will require reviewing to fill in any gaps that may be present. If we are confident that a possible pollutant linkage still exists then a site visit will be required to obtain more evidence regarding the presence of actual sources, pathways and receptors.

At this stage, the Council will also need to consider evidence relating to existing schemes for the remediation of contaminated land that have already been undertaken as part of planning process or rolling programmes of reclamation. This will be used in order to determine if there is a need to amend any ranking that has been made without the benefit of the knowledge of remediation. Previous remediation schemes will still need to be assessed in detail as part of the programme of investigation, to consider whether the remediation undertaken was to a sufficient level with regard to present day best practice and risk assessment principles.

The council holds a vast amount of data regarding sites within the borough, which will be utilised during the data assessment exercise. This data should assist the authority in deciding whether it needs to carry on to the next step of the investigation.

## **Site Visit**



This is to determine the likelihood that contaminants and receptors are present, and/or to gather further information about relevant pathways. In some cases, the site visit will allow Barnsley MBC to verify desk study information. The site visit will be limited to a visual inspection of the site carried out as a walkover exercise. A standard checklist is being developed for this purpose, which will be used to assess whether further investigation is required. During the walkover, a site plans will be annotated and photographs taken. Where possible, inspection will also be carried out on land directly outside the site boundaries.

### **Site Walkover**

The site walkover will allow some limited sampling of surface soils to confirm the presence or absence of a contaminant. This sampling will be targeted to areas that are considered to indicate the likely presence of a contaminant.

### **Intrusive Site Investigation**

If following the site walkover and limited sampling it is strongly suspected that there is a significant pollutant linkage existing on a site, then an intrusive investigation will be required to assess the significance.

Desktop studies and Walkover surveys will be undertaken by members of the Pollution Control team. It is likely, however, that intrusive site investigation will require the involvement of specialist contractors. These services may include:

- Laboratory analysis of soils and water
- Site Investigations
- Specialised Risk Assessments
- Remediation Technologies

Where these services are required then advice will be taken from Barnsley MBC Highways and Engineering department, whom have experience in this area. Such contracts will be done in accordance with current council policy.

Any assessment will be carried out in accordance with current guidance, for example BS10175: 2001, The Investigation of Potentially Contaminated Sites - Code of Practice and BS5930: 1999, Code of Practice for Site Investigations, etc.

All inspections will be carried out in accordance with the Authority's Health and Safety Policy and with consideration of appropriate guidance, for example, "Protection of Workers and the General Public During the Development of Contaminated Land" published by the Health and Safety Executive (HS(G)66).

### **Voluntary Actions**

In the majority of cases, the Councils approach to its regulatory duties will be to seek voluntary action wherever possible, as it is recognised that more effective remediation may be achieved by agreement than by enforcement. If during any stage of the authority's investigations we strongly suspect a site could be determined as contaminated land, liaison will take place with the appropriate persons for the site. This should provide the opportunity



for the appropriate persons to take actions to remove the risks posed to the receptors on or off the site, or provide any information that would assist the Authority in its assessment of the site.

## 5.7 Potential Special Sites

Whenever the local authority has identified any contaminated land, it will need to consider whether that land meets one or more of the descriptions prescribed in the Regulations, and should therefore be designated as a **special site**. Details of what determines if a land can be a special site can be found in Appendix 5. If the local authority considers, at any time, that some particular contaminated land might be required to be designated as a special site, it needs to request the advice of the Environment Agency.

The authority then needs to decide, having regard to any such advice received, whether or not the land is required to be designated as a special site. Once the notice is given confirming this, and the Environment Agency agrees, the site is determined as a special site. Once a site is determined as a special site, the enforcing responsibilities are passed from the local authority to the Environment Agency

## 5.8 Risk Assessment

All information on contaminants will be evaluated against current generic government guidelines or by the use of prescribed risk assessment models.

The UK has developed a site specific risk assessment tool (the Contaminated Land Exposure Model or CLEA), that is expected to be released in the near future. However, until CLEA is published, guidance issued by the Interdepartmental Committee on Redevelopment of Contaminated Land (ICRCL guidelines) will be used as a basis for risk assessment where applicable. If the ICRCL guidelines are not suitable for use on a particular site, regard will be had to other guidelines that may apply such as:

- 1993-1996 US Screening levels
- 2000 Revised Dutch Intervention Values
- SNIFFER framework.
- MAFF Soil Code of Good Agricultural Practice.

When using the US and Dutch guidelines, regard will be had to any confounding factors which may require allowances to be made when applying them to a particular site in the UK.

With regard to risk assessment for controlled waters, The Environment Agency's advice will be sought, and assessed in accordance with guidance laid down in the Methodology for the Derivation of Remedial Targets for Soil and Groundwater to Protect Water Resources document (Environment Agency R&D Publication 20, 1999).

During this process of risk assessment, the council's priority is to **protect human health** above the other receptors highlighted in the DETR Circular 02/2000.

## 5.9 Interaction with other Regimes



There are other regulatory actions that can be taken to deal with contamination on land. Overlaps with planning, water pollution, waste management and IPPC legislation are considered the most important and are addressed here. Any issues of land contamination that may previously have been dealt with under the statutory nuisance regime will now be dealt with through Part IIA processes.

### **Planning / Development Control**

The majority of contaminated land issues are currently, and will continue to be, addressed through the planning regime, where contamination is a material planning consideration. It is anticipated that redevelopment of brownfield sites, and the associated planning controls, will remain the primary mechanism for dealing with contaminated land. Any remediation agreed as a planning condition will be dealt with under planning controls and not under Part IIA. Environment Health Services are currently working closely with Planning Services (Development Control) to ensure that where redevelopment of land takes place within Barnsley, the planning process deals effectively with any land contamination so that the land is suitable for its intended use. Planning Services can prevent potentially polluted land becoming 'contaminated land' by attaching conditions for suitable remediation to be carried out as part of the redevelopment.

The Contaminated Land GIS, being developed within Planning Services, will be used in the department to assess the risk of an application with regards to potentially contaminated land. The information being developed on the database should flag up any application on potentially contaminated land. This will allow the opportunity for the Authority to attach conditions to the development, or turn down the application.

Where conditions are attached to a planning decision for site investigations or risk assessment to be carried out as part of the development, subsequent reports will be assessed by the Authority in order to achieve the necessary clean up standards. To assist developers in carrying out this process, Barnsley MBC intends to produce supplementary planning guidance relating to developments on land affected by potential contamination, highlighting the information the authority will require when considering a planning application. This should assist in the determining of planning application by the authority.

Where remediation works are carried out, this information will be added onto the database, providing further feed back into the risk assessment model for sites which the authority may have had concerns about.

The Contaminated land database will be used as part of the decision making process for future land use policies, through the allocation of sites in the Unitary Development Plan (UDP).

### **Water pollution**

The Water Resources Act 1991 gives the Environment Agency powers to deal with harm to controlled waters being caused by contaminated land. Part IIA legislation does not revoke these powers and, prior to any determination being made, the Council will always consult with the Environment Agency to establish which is the preferred route of control. If control is to be achieved through Part IIA the Council will consult with the Environment Agency



before determining any contaminated land and will take into account any comments made with respect to remediation.

### **Waste Management**

Powers are available under the Waste Management Licensing Provisions of the Environmental Protection Act 1990 for dealing with contamination that results from a breach of an operating licence.

### **Integrated Pollution Prevention and Control Regime (IPPC)**

Under recently introduced legislation to regulate pollution from industrial processes, relevant site operators are required to undertake a site condition survey prior to receiving a licence to operate. If the site condition is such that areas of land meet the definition of contaminated land, then submission of a site survey may trigger action under Part IIA. Existing processes will be brought under this legislation in stages over the next seven years, although it will apply immediately to any new processes or any substantial change to an existing process.



## **CHAPTER 6: GENERAL LIAISON AND COMMUNICATION STRATEGIES**

### **6.1 Consultees**

The following organisations will be consulted with regard to the draft strategy and their comments taken into consideration before final publication (see Appendix 6)

- The Environment Agency
- English Heritage
- English Nature
- Department for Environment, Food and Rural Affairs (DEFRA)
- The Food Standards Agency
- Yorkshire Forward (Regional Development Agency)
- Barnsley Development Agency
- English Partnerships
- Peak District National Park
- Parish and Town Councils within BMBC
- Area Forum Officers

In addition to the above external consultees, consultation will also take place with the relevant Service areas within the Council as a whole, including:

- Planning and Transportation Services
- Highways and Engineering
- Environmental Health and Trading Standards
- SYMAS
- Property and Procurement
- Facilities/Property Support
- Legal Services
- Corporate Finance
- Education - Policy and Planning
- Community Planning and Regeneration

The following adjoining local authorities will also be consulted:

- Doncaster Metropolitan Borough Council
- High Peak District Council
- Kirklees Metropolitan Council
- Rotherham Metropolitan Borough Council
- Sheffield City Council
- Wakefield Metropolitan Council

Copies of the strategy are available for public viewing at the Central Library, or at Environmental Health Services, Central Offices, Kendray Street. Comments from members of the public are welcomed.

### **6.2 Liaison with Land Owners, Occupiers and Other Stakeholders**

In the majority of cases, the Councils approach to its regulatory duties will be to seek voluntary action wherever possible, as it is recognised that more effective remediation may



be achieved by agreement than by enforcement. The regime itself provides an incentive to encourage voluntary action. This is:

- Landfill Tax - The Finance Act 1996 introduced a tax on the disposal of wastes, including those arising from the remediation and reclamation of land. However, an exemption from this tax can be obtained where material is being removed from contaminated land in order to prevent harm, or to facilitate the development of the land for particular purposes. An exemption certificate has to be specifically applied for, through HM Customs and Excise, in each case where it might apply. No exemption certificate will be granted where the material is being removed in order to comply with the requirements of a remediation notice served under section 78E of the 1990 Act. This provides a fiscal incentive for those responsible for carrying out remediation under Part IIA to do so by agreement, rather than waiting for the service of a remediation notice.

### **Determination of Contaminated Land**

Where a formal determination of contaminated land is required, BMBC will take the following action:

1. Write to the owners and/or the occupiers / appropriate persons of the land in question within 5 working days giving prior to the determination of the land, explaining the Councils intentions and summarising the reason for the determination.
2. Write to the owners and/or the occupiers / appropriate persons explaining that the land has been formally determined as contaminated land and that, initially, the Council is seeking appropriate remediation without the service of a remediation notice. The Environment Agency will also be notified.
3. A copy of the formal Determination Notice will be supplied on request.

If voluntary remediation is not undertaken, a remediation notice will be served on the owners / occupiers / appropriate persons as required, detailing the action required. Where the site is considered a 'special site', the Council will consider authorising a person nominated by the Environment Agency to exercise the above powers on behalf of the Council.

### **6.3 Public Register**

Under the Regulations, the Council is required to maintain a register. The contents of the register are prescribed in the Regulations. These are:

- Remediation Notices;
- Remediation Declarations;
- Remediation Statements and notifications of claimed remediation;
- Details of site reports obtained by the Council in relation to Remediation Notices;
- Designation of sites as Special Sites;
- Any appeals lodged against remediation and Charging Notices;
- Convictions (for failing to comply with a remediation notice);
- Other environmental controls;
- Agency site-specific guidance.

The register will be held at the following address, and will be available for inspection on request from 9.30am until 4.30pm Monday to Friday.



Environmental Health Services  
Central Offices  
Kendray Street  
Barnsley S70 2TN

Tel 01226 772456  
Fax 01226 772498

#### **6.4 The Environmental Information Regulations 1992**

In addition to the Public Register, a significant amount of environmental information is held by the Council, as a result of implementing the Part IIA provisions. Requests for specific environmental information should be made in writing to Environmental Health Services, with a relevant site plan. Information will be made available in accordance with the above regulations, where available. Requests for information under the Regulations will be dealt with within two months of receipt of the request and will either result in provision of the information requested or details of the reasons for refusal to provide the information. The information provided will be subject to a charge reflecting the costs of obtaining the information. Any information provided will be given to the best of the Authority's knowledge but cannot be relied upon to be complete or accurate and the enquirer will still need to satisfy themselves whether or not the information provided is complete or accurate.

#### **6.5 Provision of information to The Environment Agency**

A copy of the Contaminated Land Strategy will be provided to the Environment Agency to provide information for the Agency's Annual Report for the Secretary of State, on the state of contaminated land in England and Wales.

Where a site is determined to be contaminated land, the Agency will be notified, and will be updated at each stage of the remediation process. The Agency has a standard form to provide this information, SOCL/LA/FORM1-3, and these will be adopted for use in supplying this information. Where any issues of controlled waters are involved, advice will be sought from the Environment Agency prior to any determination

Information concerning land that is considered to be (or likely to be) a special site will also be provided to the Agency.

Any statistical data required for the Agency's Annual Report will be supplied on request.

#### **6.6 Provision of Information for Other Services within Barnsley MBC**

The GIS and all databases will be available for information to officers of Planning Services in order that planning applications can be checked against the information to identify sites that may be in need of remediation.

Where a site is found to have a potential pollutant linkage, and the site is in Council ownership, the relevant Service Unit will be advised in order for investigations to be carried out as necessary.

The details held on the GIS will be available to other council departments on a 'read only' basis.



## **6.7 The Wider Community**

The communication of risk associated with contaminated land must be handled sensitively but openly in order to ensure that all stakeholders understand as fully as possible the issues involved in a way that avoids unnecessary blight. Communication procedures will be produced to assist in the implementation of an equitable approach to dealing with sites identified. Guidance, such as that discussed in the SNIFFER (Scottish and Northern Ireland Forum For Environmental Research) publication “Communicating Understanding of Contaminated Land Risks” 2000, will be used to assist in the production of such procedures.



## CHAPTER 7: REVIEW MECHANISMS

This strategy outlines the general approach to be taken in inspecting land for contamination. This Chapter explains why, when and how we will review the Strategy and its procedures.

### 7.1 Review of assumptions and information

The strategy recognises there may be occasions where inspections have to be undertaken outside of the general strategic framework. Triggers for undertaking non-routine inspection will include:

- **Unplanned events**, for example where an accident such as a spill has occurred
- **Responding to information** from other statutory bodies, stakeholders, or other interested parties, which reveal that a site requires urgent action
- **Introduction of new receptors**, e.g. where a new protected ecosystem is designated, or there is persistent trespass on a site which otherwise does not have a sensitive receptor.
- **Identification of localised health effects** which appear to relate to a particular area of land

While these occurrences may trigger non-routine inspections, they will not be allowed to significantly interfere with the milestones laid down in the general strategic framework.

### 7.2 Review of Strategy Document

The Council has a duty under Part IIA to keep its Inspection Strategy under periodic review. The main reasons why we will undertake a review are:

- To assess significant changes in case law
- Take account for changes in legislation or guidance for assessing land contamination
- To see how we are progressing – i.e. to determine whether we are achieving our objectives and priorities
- To determine whether the set timescales are realistic or need revising
- To revise and improve procedures
- To reflect changes in Council policies and strategies

The Council intends to review the progress of the strategy after the first year of commencement; therefore, this will be in August 2002. If significant changes to the strategy are required, it might be appropriate to carry out further annual reviews. If no major changes are necessary, the strategy will remain in place for the full period of the work plan, in which case the next full review date will be January 2006. By this time, the detailed inspections should have been completed.



## **CHAPTER 8: INFORMATION MANAGEMENT**

### **8.1 General Principles**

It is expected that there will be vast quantities of data gathered whilst the strategy work is carried out. This information will be in a variety of formats; reports, letters, maps, both paper and electronic documents. It is our intention to store much of this data electronically to allow as much access as possible for relevant council departments. Access to administer this data is limited to a small number of users, but will be available to a wider number on a 'read only' basis.

Initially the Public Register will be maintained as a paper file system, but eventually a copy will be produced for electronic storage of this information. A summary list of the register will be available on our website by July 2002, although this will not constitute the formal register and will only be for information purposes.

The G.I.S. being used for the contaminated land work will be maintained between the Planning and Environmental Health departments, as these services are seen to be the key areas in the management of land contamination and its remediation.



## GLOSSARY OF TERMS

The statutory guidance and circular use a number of terms, which are defined in Part IIA of the 1990 Act, other Acts or in the guidance itself. The meanings of some of these terms are used in the strategy document, and are set out below, along with a reference to the section in the Act or the paragraph in which the relevant term is defined.

**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). Paragraph D.5 (e)

**Appropriate person:** defined in section 78A(9) as 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.”

**Assessment action:** a remediation action falling within the definition of remediation in section 78A(7)(a), that is the doing of anything for the purpose of assessing the condition of the contaminated land in question, or any controlled waters affected by that land or any land adjoining or adjacent to that land. Paragraph C.8 (e)

**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. Table A

**Class A liability group:** a liability group consisting of one or more Class A persons. Paragraph D.5(c)

**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). Paragraph D.5 (a)

**Class B liability group:** a liability group consisting of one or more Class B persons. Paragraph D.5(c)

**Class B person:** a person who is an appropriate person by virtue of section 78P(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). Paragraph D.5 (b)

**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. Paragraph A12

**Contaminated land:** defined in section 78A(2) 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-

- (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.”

**Contaminated Land (England) Regulations 2000:** regulations (S.J. 2000/22 7) made under Part IIA — described in Annex 4.



**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.

**Current use:** any use which is currently being made, or is likely to be made, of the land and which is consistent with any existing planning permission (or is otherwise lawful under town and country planning legislation). This definition is subject to the following qualifications:

- (a) the current use should be taken to include any temporary use, permitted under town and country planning legislation, to which the land is, or is likely to be, put from time to time;
- (b) the current use includes future uses or developments which do not require a new, or amended, grant of planning permission;
- (c) the current use should, nevertheless, be taken to include any likely informal recreational use of the land, whether authorised by the owners or occupiers or not, (for example, children playing on the land); however, in assessing the likelihood of any such informal use, the local authority should give due attention to measures taken to prevent or restrict access to the land; and
- (d) in the case of agricultural land, however, the current agricultural use should not be taken to extend beyond the growing or rearing of the crops or animals which are habitually grown or reared on the land. Paragraph A.26

**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). Paragraph D.5(d)

**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 for a discussion of the interpretation of this term.

**Harm:** defined in section 78A(4) as 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.

**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. Paragraph B.20(c)

**Liability group:** the persons who are appropriate persons with respect to a particular significant pollutant linkage. Paragraph D.5(c)

**Local authority:** defined in section 78A(9) as meaning 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.

**Monitoring action:** a remediation action falling within the definition in section 78A(7)(c), that is “making of subsequent inspections from time to time for the purpose of keeping under review the condition of the land or waters”. Paragraph C.8(g)



**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. Paragraphs D. 12, D. 14 and D. 17

**Owner:** defined in section 78A(9) as a person (other than a mortgage 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. Paragraph A. 14

**Pollutant:** a contaminant which forms part of a pollutant linkage. Paragraph A. 17

**Pollutant linkage:** the relationship between a contaminant, a pathway and a receptor. Paragraph A. 17

**Pollution of controlled waters:** defined in section 78A(9) as “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. Paragraph A.27

**Receptor:** either:

- (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 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. Paragraph A. 13

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

Related companies: are those which are, or were at the “relevant date”, members of a group of companies consisting of a “holding company” and its “subsidiaries”. The “relevant date” is that on which the enforcing authority first served on anyone a notice under section 78B(3) identifying the land as contaminated land, and the terms “holding company” and “subsidiaries” have the same meaning as in section 736 of the Companies Act 1985. Paragraph D.46

**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. Paragraph A.3 I

**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. Paragraph C.8(f)

**Remediation:** defined in section 78A(7) 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. Paragraph C.8(a)

**Remediation declaration:** defined in section 78H(6). It is a document prepared and published by the enforcing authority recording remediation actions which it would have specified in a remediation notice, but which it is precluded from specifying by virtue of sections 78E(4) or (5), the reasons why it would have specified those actions and the grounds on which it is satisfied that it is precluded from specifying them in a notice.

**Remediation notice:** defined in section 78E(1) as 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 package:** the full set or sequence of remediation actions, within a remediation scheme, which are referable to a particular significant pollutant linkage. Paragraph C. 8(b)

**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. Paragraph C.8(c)

**Remediation statement:** defined in section 78H(7). It is 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. Paragraph A.9

**Significant harm:** defined in section 78A(5). It means 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. Paragraph A.20

**Significant pollutant linkage:** a pollutant linkage which forms the basis for a determination that a piece of land is contaminated land. Paragraph A.20

**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.

**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:** defined in section 78A(9) as any natural or artificial substance, whether in solid or liquid form or in the form of a gas or vapour.



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**Appendix 1**

**RECEPTORS, as defined in Table A of the Statutory Guidance**

<p><b>Human Beings</b></p> <p>Any <b>ecological system</b>, or <b>living</b> organism forming part of such a system, within a location which is:</p> <ul style="list-style-type: none"> <li>• an area notified as an area of special scientific interest under section 28 of the Wildlife and Countryside Act 1981;</li> <li>• any land declared a national nature reserve under section 35 of that Act;</li> <li>• any area designated as a marine nature reserve under section 36 of that Act;</li> <li>• an area of special protection for birds, established under section 3 of that Act;</li> <li>• any European Site within the meaning of regulation 10 of the Conservation (Natural Habitats etc) Regulations 1994 (ie Special Areas of Conservation and Special Protection Areas);</li> <li>• any candidate Special Areas of Conservation or potential Special Protection Areas given equivalent protection;</li> <li>• any habitat or site afforded policy protection under paragraph 13 of Planning Policy Guidance Note 9 (PPG9) on nature conservation (ie candidate Special Areas of Conservation, potential Special Protection Areas and listed Ramsar sites); or</li> <li>• any nature reserve established under section 21 of the National Parks and Access to the Countryside Act 1949.</li> </ul>
<p><b>Property</b> in the form of:</p> <ul style="list-style-type: none"> <li>• crops, including timber;</li> <li>• produce grown domestically, or on allotments, for consumption;</li> <li>• livestock;</li> <li>• other owned or domesticated animals;</li> <li>• wild animals which are the subject of shooting or fishing rights.</li> </ul>
<p><b>Property</b> in the form of buildings.          For this purpose, "building" means any structure or erection, and any part of a building including any part below ground level, but does not include plant or machinery comprised in a building.</p>



## APPENDIX 2

## CATEGORIES OF SIGNIFICANT HARM

Type of Receptor	Description of harm to that type of receptor that is to be regarded as significant harm
<b>Human beings</b>	<p>Death, disease, serious injury, genetic mutation, birth defects or the impairment of reproductive functions.</p> <p>For these purposes, disease is to be taken to mean an unhealthy condition of the body or a part of it and can include, for example, cancer, liver dysfunction or extensive skin ailments. Mental dysfunction is included only insofar as it is attributable to the effects of a pollutant on the body of the person concerned.</p> <p>In this Chapter, this description of significant harm is referred to as a "human health effect".</p>
<p><b>Any ecological system, or living organism forming part of such a system, within a location which is:</b></p> <ul style="list-style-type: none"> <li>• an area notified as an area of special scientific interest under section 28 of the Wildlife and Countryside Act 1981;</li> <li>• any land declared a national nature reserve under section 35 of that Act;</li> <li>• any area designated as a marine nature reserve under section 36 of that Act;</li> <li>• an area of special protection for birds, established under section 3 of that Act;</li> <li>• any European Site within the meaning of regulation 10 of the Conservation (Natural Habitats etc) Regulations 1994 (ie Special Areas of Conservation and Special Protection Areas);</li> <li>• any candidate Special Areas of Conservation or potential Special Protection Areas given equivalent protection;</li> <li>• any habitat or site afforded policy protection under paragraph 13 of Planning Policy Guidance Note 9 (PPG9) on nature conservation (ie candidate Special Areas of Conservation, potential Special Protection Areas and listed Ramsar sites); or</li> <li>• any nature reserve established under section 21 of the National Parks and Access to the Countryside Act 1949.</li> </ul>	<p>For any protected location:</p> <p>Harm which results in an irreversible adverse change, or in some other substantial adverse change, in the functioning of the ecological system within any substantial part of that location; or Harm which affects any species of special interest within that location and which endangers the long-term maintenance of the population of that species at that location.</p> <p>In addition, in the case of a protected location which is a European Site (or a candidate Special Area of Conservation or a potential Special Protection Area), harm which is incompatible with the favourable conservation status of natural habitats at that location or species typically found there.</p> <p>In determining what constitutes such harm, the local authority should have regard to the advice of English Nature and to the requirements of the Conservation (Natural Habitats etc) Regulations 1994.</p> <p>In this Chapter, this description of significant harm is referred to as an "ecological system effect".</p>
<p><b>Property in the form of:</b></p> <ul style="list-style-type: none"> <li>• Crops, including timber</li> <li>• Produce grown domestically, or on allotments, for consumption</li> <li>• Livestock</li> <li>• Other owned or domesticated animals</li> <li>• Wild animals which are the subject of shooting or fishing rights</li> </ul>	<p>For crops, a substantial diminution in yield or other substantial loss in their value resulting from death, disease or other physical damage. For domestic pets, death, serious disease or serious physical damage. For other property in this category, a substantial loss in its value resulting from death, disease or other serious physical damage.</p> <p>The local authority should regard a substantial loss in value as occurring only when a substantial proportion of the animals or crops are dead or otherwise no longer fit for their intended purpose. Food should be regarded as being no longer fit for purpose when it fails to comply with the provisions of the Food Safety Act 1990. Where a diminution in yield or loss in value is caused by a pollutant linkage, a 20% diminution or loss should be regarded as a benchmark for what constitutes a substantial diminution or loss.</p> <p>In this Chapter, this description of significant harm is referred to as an "animal or crop effect".</p>
<p><b>Property in the form of buildings.</b></p> <p>For this purpose, "building" means any structure or erection, and any part of a building including any part below ground level, but does not include plant or machinery comprised in a building.</p>	<p>Structural failure, substantial damage or substantial interference with any right of occupation.</p> <p>For this purpose, the local authority should regard substantial damage or substantial interference as occurring when any part of the building ceases to be capable of being used for the purpose for which it is or was intended.</p> <p>Additionally, in the case of a scheduled Ancient Monument, substantial damage should be regarded as occurring when the damage significantly impairs the historic, architectural, traditional, artistic or archaeological interest by reason of which the monument was scheduled.</p> <p>In this Chapter, this description of significant harm is referred to as a "building effect".</p>



## APPENDIX 3

## SIGNIFICANT POSSIBILITY OF SIGNIFICANT HARM

<b>Descriptions Of Significant Harm (As Defined In Table A)</b>	<b>Conditions For There Being A Significant Possibility Of Significant Harm</b>
Human health effects arising from the intake of a contaminant, or other direct bodily contact with a contaminant.	<p>If the amount of the pollutant in the pollutant linkage in question: which a human receptor in that linkage might take in, or</p> <p>to which such a human might otherwise be exposed, as a result of the pathway in that linkage, would represent an unacceptable intake or direct bodily contact, assessed on the basis of relevant information on the toxicological properties of that pollutant.</p> <p>Such an assessment should take into account:</p> <ul style="list-style-type: none"> <li>the likely total intake of, or exposure to, the substance or substances which form the pollutant, from all sources including that from the pollutant linkage in question;</li> <li>the relative contribution of the pollutant linkage in question to the likely aggregate intake of, or exposure to, the relevant substance or substances; and</li> <li>the duration of intake or exposure resulting from the pollutant linkage in question.</li> </ul> <p>The question of whether an intake or exposure is unacceptable is independent of the number of people who might experience or be affected by that intake or exposure.</p> <p>Toxicological properties should be taken to include carcinogenic, mutagenic, teratogenic, pathogenic, endocrine-disrupting and other similar properties.</p>
All other human health effects (particularly by way of explosion or fire).	<p>If the probability, or frequency, of occurrence of significant harm of that description is unacceptable, assessed on the basis of relevant information concerning:</p> <ul style="list-style-type: none"> <li>that type of pollutant linkage, or</li> <li>that type of significant harm arising from other causes.</li> </ul> <p>In making such an assessment, the local authority should take into account the levels of risk which have been judged unacceptable in other similar contexts and should give particular weight to cases where the pollutant linkage might cause significant harm which:</p> <ul style="list-style-type: none"> <li>would be irreversible or incapable of being treated;</li> <li>would affect a substantial number of people;</li> <li>would result from a single incident such as a fire or an explosion; or</li> <li>would be likely to result from a short-term (that is, less than 24-hour) exposure to the pollutant.</li> </ul>
All ecological system effects.	<p>If either:</p> <ul style="list-style-type: none"> <li>significant harm of that description is more likely than not to result from the pollutant linkage in question;</li> <li>or</li> <li>there is a reasonable possibility of significant harm of that description being caused, and if that harm were to occur, it would result in such a degree of damage to features of special interest at the location in question that they would be beyond any practicable possibility of restoration.</li> </ul> <p>Any assessment made for these purposes should take into account relevant information for that type of pollutant linkage, particularly in relation to the ecotoxicological effects of the pollutant.</p>
All animal and crop effects.	<p>If significant harm of that description is more likely than not to result from the pollutant linkage in question, taking into account relevant information for that type of pollutant linkage, particularly in relation to the ecotoxicological effects of the pollutant.</p>
All building effects	<p>If significant harm of that description is more likely than not to result from the pollutant linkage in question during the expected economic life of the building (or, in the case of a scheduled Ancient Monument, the foreseeable future), taking into account relevant information for that type of pollutant linkage.</p>



**APPENDIX 4 Generic Classification of Potentially Polluting Land Uses**

<b>DOE Class</b>	<b>Category</b>	<b>DOE Class</b>	<b>Category</b>
<b>C14d</b>	Airports	<b>C7b</b>	Fibreglass
<b>C9bc</b>	Animals and Processing Works	<b>C3a</b>	Gas Works
<b>C12a</b>	Tanneries	<b>C3a</b>	Coke Works
<b>C5b/C3d</b>	Asbestos Manufacturing	<b>C6a</b>	Glass Manufacturing
<b>C5c</b>	Cement Works	<b>C4</b>	Metal Works - Unspecified
<b>C6b</b>	Ceramics Works	<b>C4a</b>	Metal Works - Manufacturing
<b>C7a</b>	Asphalt manufacturing	<b>C4a</b>	Metal Works - Electroplating
<b>C3a</b>	Charcoal Works	<b>C4a</b>	Metal Works - Iron and Steel Works
<b>C7a</b>	Chemical - unspecified	<b>C4a</b>	Metal Works - Lead Works
<b>C7b</b>	Chemical - Coating, Paints and Inks	<b>C4a</b>	Metal Works - Non Ferrous Metals
<b>C7b</b>	Chemical - Cosmetics and Toiletries	<b>C4a</b>	Metal Works - Precious Metals
<b>C7b</b>	Chemical - Disinfectants	<b>C3a</b>	Oil Refineries, Petroleum Product Storage
<b>C7b</b>	Chemical - Explosive and Fireworks	<b>C16d</b>	Photographic
<b>C7b</b>	Chemical - Fertilisers	<b>C3d</b>	Power Stations - Unspecified
<b>C7c</b>	Chemical - Fine Chemicals	<b>C3d</b>	Power Stations - Nuclear
<b>C7b</b>	Chemical - Lino, Vinyl and Bitumen based	<b>C3d</b>	Power Stations - Hydroelectric
<b>C7b</b>	Chemical - Roofing Felt	<b>C3d</b>	Power Stations - Coal Fired
<b>C7b</b>	Chemical - Organic Chemicals	<b>C3d</b>	Power Stations - Gas Fired
<b>C7b</b>	Chemical - Pesticides	<b>C10a</b>	Printing and Bookbinding
<b>C7b</b>	Chemical - Pharmaceuticals	<b>C10a</b>	Pulp and Paper Manufacturing
<b>C7b</b>	Chemical - Rubber Processing	<b>C14a</b>	Railway Land
<b>C7b</b>	Chemical - Soap and Detergents	<b>C14c</b>	Garages / Filling Stations and Repairs
<b>C2a</b>	Coal Mine	<b>C15a</b>	Sewage Works
<b>C2a</b>	Coal Mine Spoil	<b>C12a / C12b</b>	Textile and Dye Works
<b>C14a</b>	Docks and Dockland	<b>C11</b>	Timber Products
<b>C16a</b>	Dry Cleaners and Laundries	<b>C11a</b>	Timber Treatment Works
<b>C8</b>	Engineering - Unspecified	<b>C15</b>	Waste - Unspecified
<b>C8a</b>	Engineering - Aircraft	<b>C15c</b>	Waste - Drum Tank Cleaning
<b>C8c/C3e</b>	Engineering - Electrical	<b>C15c</b>	Waste - Hazardous Waste
<b>C8a</b>	Engineering - Engine	<b>C15c</b>	Waste - Scrap Yards, Recycling Works
<b>C8b</b>	Engineering - Ordnance	<b>C15c</b>	Waste Solvent Disposal
<b>C8a</b>	Engineering - Railway Works	<b>C15c</b>	Waste - Landfill
<b>C8a</b>	Engineering - Shipbuilding / Shipbreaking		
<b>C8a</b>	Engineering - Vehicle Manufacturing		



## Appendix 5                      Special Site Criteria

What constitutes a special site is specified in the Contaminated Land (England) Regulations 2000, which must always be consulted for a legal definition. In simple terms' however, they include:

- Land which is polluting controlled waters (in certain circumstances);
- Sites subject to Integrated Pollution Control (see Environmental Protection Act 1990 Part I Prescribed Processes and Substances Regulations 1991 schedule 1 part A);
- Land with waste sulphuric acid tar lagoons (on sites used for refining benzole, used lubricants or petroleum);
- Land used as an oil refinery;
- Land used to manufacture or process explosives;
- Land used to manufacture or dispose of atomic, chemical or biological weapons (non biological contamination only);
- Land used for other nuclear purposes; or
- Land owned or occupied by a defence organisation for naval, military or air force purposes (not off-base housing / NAFFI);

Contaminated land beyond the boundary of these premises which is also contaminated by them forms part of the special site.

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 Colyhurst Sandstone;
- Lower Permian Basal Breccias, Conglomerates and Sandstones;
- Lower Carboniferous Limestones.



## Appendix 6 Consultees – Key Organisations

David Walmsley Area Contaminated Land Officer Environment Agency Phoenix House Global Avenue Leeds LS11 8PG	Deborah Starkings Peak District National Park Olden House Baslow Road Bakewell BE45 1AS
Ian Smith Regional Land Use Planner English Heritage Yorkshire Region 37 Tanner Row York YO1 6WP	Mr J Navaratnam English Partnerships 110 Arpley House Birchwood Boulevard Birchwood Warrington WA3 7QH
DEFRA Farming & Rural Conservation Agency Government Buildings Otley Road Lawnswood Leeds LS16 5QT	Dr Patrick Miller Foods Standards Agency Room 238 Ergon House 17 Smith Square PO Box 31037 London SW1P 3WG
Barnsley Development Agency Beevor Court Pontefract Road Barnsley S71 1HG	Yorkshire Forward Victoria House 2 Victoria Place Leeds LS11 5AE
Brian Davies English Nature Bull Ring House Northgate Wakefield WF1 1HD	

### Neighbouring Local Authorities

Heather Brough / Wendy Blakeley Kirklees Metropolitan Council Environmental Services 9 Manchester Road Huddersfield HD3 3HH	Julia Taylor Doncaster MBC Pollution Control PO Box 257 College Road Doncaster DN1 1RN
Peter Knight Sheffield CC Environmental Protection Service 2-10 Carbrook Hall Road Sheffield S9 2DB	I J Nicholls High Peak Borough Council Town Hall Buxton SK17 6EL
Mike Ashworth City of Wakefield MDC Planning and Environment Development Department Newton Bar Wakefield WF1 2TX	Tim Simpson Rotherham MBC Environmental Health Elm Bank House 73 Alma Road Rotherham S60 2BU



**Town and Parish Councils**

<p><b>Billingley Parish Council</b> Mrs. J. A. Graham 3 Grenville Place Barnsley S75 2QN</p>	<p><b>Brierley Town Council</b> Mrs. Rebecca Pritchard 20 Skin Pit Lane Hoylandswaine Sheffield S36 7JY</p>
<p><b>Cawthorne Parish Council</b> Mr. F. Johnston Barrister-at-Law 23 Hall Farm Grove Hoylandswaine Sheffield S36 7LJ</p>	<p><b>Dunford Parish Council</b> Mrs Joan Cook 9 Royd Lane Deepcar Sheffield S36 7BG</p>
<p><b>Great Houghton Parish Council</b> Mr. B. Housley 10 Baslow Crescent Dodworth Barnsley S75 3SG</p>	<p><b>Gunthwaite &amp; Ingbirchworth Parish Council</b> Mrs. J. Methley 4 Fir Tree Estate Thurgoland Sheffield S35 7BG</p>
<p><b>High Hoyland Parish Meeting</b> Mrs. J. M. Roberts 3, Church Lane High Hoyland Barnsley S75 4BJ</p>	<p><b>Hunshelf Parish Council</b> Mr D.B. Horsfall Oberwald Forge Lane Wortley Sheffield S35 7AE</p>
<p><b>Langsett Parish Council</b> Mrs. N. Mozley 4, Don Terrace Midhopestones Stocksbridge Sheffield S36 4GW</p>	<p><b>Little Houghton Parish Council</b> Mrs. J. James 14, Wharncliffe Close Hoyland Barnsley S74 0HP</p>
<p><b>Oxspring Parish Council</b> Mr. C. Booth Toll Bar Farm Roughbirchworth Lane Oxspring Sheffield S36 8YQ</p>	<p><b>Penistone Town Council</b> Mrs. Rachel Joner St John's Community Centre Church Street, Penistone Sheffield S36 6AR</p>
<p><b>Shafton Parish Council</b> Mr. G. Govier 13, Weetshaw Lane Shafton Barnsley S72 8PZ</p>	<p><b>Silkstone Parish Council</b> Mrs. M. Liddell 15 Blackhorse Drive Silkstone Common Barnsley S75 4SD</p>
<p><b>Stainborough Parish Council</b> Frank Sheldon 7 Hawksley Rise Oughtibridge Sheffield S35 0JB</p>	<p><b>Tankersley Parish Council</b> Mr. L. A. Carr 72 Park Street Wombwell Barnsley S73 0HS</p>



<p><b>Thurgoland Parish Council</b>                  Ruth Atkinson                  6, Belmont Terrace                  Cote Lane                  Thurgoland                  Sheffield S75 7AD</p>	<p><b>Wortley Parish Council</b>                  Mr. F. Sheldon                  7, Hawksley Rise                  Oughtibridge                  Sheffield S35 0JB</p>
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### Area Forums

<p><b>Athersley, North West and Royston</b>                  Area Forum Officer: <b>Jack Peach</b></p>	<p><b>Dearne South and Dearne Thurnscoe</b>                  Area Forum Officer: <b>Neil Wilson</b></p>
<p><b>Ardsley, Park and Worsbrough</b>                  Area Forum Officer: <b>Carole Clark</b></p>	<p><b>Hoyland East and Hoyland West</b>                  Area Forum Officer: <b>Gerry Green</b></p>
<p><b>Darfield, Wombwell North and Wombwell South</b>                  Area Forum Officer: <b>Mike Andrew</b></p>	<p><b>Brierley, Cudworth and Monk Bretton</b>                  Area Forum Officer: <b>Kathy Allen</b></p>
<p><b>Central and South West Wards</b>                  Area Forum Officer: <b>Tony Hattersley</b></p>	<p><b>Darton and Dodworth Wards</b>                  Area Forum Officer: <b>Kathryn Williams</b></p>
<p><b>Penistone East and Penistone West</b>                  Area Forum Officer: <b>Nigel Bath</b></p>	

### Internal Departments

<p>Martin Kimber                  Assistant Director                  Planning and Transportation</p>	<p>Geoff Birkett                  Assistant Director                  Highways and Engineering</p>
<p>Steve Pick                  Assistant Director                  Corporate Finance</p>	<p>Mike Hanson                  Assistant Director                  Environmental Health and Trading Standards</p>
<p>Keith Hilton                  Assistant Director                  Property and Procurement</p>	<p>Mike Haselhurst                  Assistant Director                  Facilities Management</p>
<p>Marion Thompson                  Assistant Director                  Policy and Planning (Education)</p>	<p>John Woodside                  Assistant Director                  Community Planning and Regeneration</p>
<p>Stephen Parker                  Assistant Borough Secretary                  Legal Services (Litigation)</p>	<p>Philip Naylor                  Mining Advisory Manager                  SYMAS</p>



## **Appendix 7            Program of Work agreed between Barnsley MBC and BGS**

### **2000-2001**

1. Undertake a data audit of relevant information held in house appropriate to the Part IIA process. Reporting and meeting with relevant staff to devise GIS model and put in place QA and protocols for data entry and validation.
2. Transfer and validation of Landfill site information. Check with Environment Agency and the DOE 1973 survey undertaken by BGS. Data capture of polygons with attribution information held in either Access of Flare
3. Provide polygons of potential receptors, ie schools, residential areas etc taken from the OS landline data.
4. Commence undertaking analysis of former land use, starting with areas of known contamination. Information to be sourced from maps at 1:10,560, 1:10,000 and 1:2500 scale. Load as polygon data with agreed attribution to the GIS.
5. Input geological data at 1:10,000 scale for the Barnsley MBC area to include solid geology, superficial deposits and man-made ground.
6. Load hydrogeological data from the Environment Agency; also include water wells and aquifer vulnerability.

### **2001-2002**

7. Continue work related to the identification of potentially contaminated sites - load more detailed information from a variety of sources including the South Yorkshire Mining Advisory Service.
8. Data capture of site investigation reports held in house.
9. Customisation of the MapInfo® system to produce reports and to undertake risk assessments.
10. Following initial risk assessment, priorities sites and collate more information in GIS format on a site by site basis - refine the risk assessment model for specific sites.

