



# **Contaminated Land Strategy**

**Kirklees Metropolitan  
Council**

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This document has been updated to reflect the findings of the review

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# **1 Introduction**

In April 2000, Part IIA of the Environmental Protection Act (EPA) 1990 came into force introducing a new regime for the regulation of contaminated land in England. The main purpose of Part IIA is to provide a system for the identification of land that is posing unacceptable risks to health or the environment, and for securing remediation where unacceptable risks cannot be controlled by other means.

Part IIA is not the only legislation that is relevant to the management of land contamination. The planning and development control system will remain a key mechanism for managing land contamination as part of the wider process of land redevelopment and regeneration. Powers are also available under Integrated Pollution Control and waste management licensing provisions of the EPA 1990 for dealing with contamination that results from a breach of an operating authorisation, permit or licence. Action can also be taken to prevent or remedy pollution of controlled waters under the Water Resources Act 1991, while health and safety legislation is relevant in most, if not all, land contamination applications.

The Government's intention is that Part IIA will:

- ◆ improve the transparency and focus of regulatory controls;
- ◆ ensure that regulators take a strategic approach to land contamination problems;
- ◆ allow all contamination problems to be dealt with as part of the same process;
- ◆ increase consistency in regulatory approaches; and
- ◆ provide a more tailored regulatory mechanism, including liability rules, that is better able to reflect the complexity and range of circumstances found on individual sites.

Other expected outcomes of the implementation of Part IIA are:

- more remediation carried out on a voluntary basis;
- greater scope on the part of responsible parties to plan investment in remediation in advance of any regulatory intervention;
- greater certainty on the part of developers and others about any residual liabilities associated with the redevelopment of former industrial and similar land.

The responsibility for enforcing the provisions of Part IIA lies both with local authorities and the Environment Agency. The primary regulators are local authorities who have responsibility for the identification of contaminated land, and for the regulation of all such land which is not also a Special Site.

## **1.1 General Policy of Kirklees**

The Council's vision statement identifies three corporate goals:

- ◆ A thriving economy

- ◆ A flourishing community
- ◆ A healthy environment

The first two are, in the main, beyond the scope of this regime. In respect of the latter, the Council aims to achieve 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 help to ensure their long term protection. Whilst much of the action required to achieve sustainable development is beyond the scope of this regime or the Council working in isolation, it can make a positive contribution to the protection of human health, ecological systems, animals, crops, buildings and controlled waters.

## 1.2 Regulatory Context

The regime under Part IIA adopts a risk-based 'suitable for use' approach to remediation, and applies the 'polluter pays' principle to apportionment of liability. The **'appropriate person'** (or persons) to bear responsibility for remediation will normally be the person who caused or knowingly permitted the contamination. If, after enquiry, such person cannot be found, or no longer exists, then the appropriate person is the person who currently owns or occupies the land. In certain circumstances, for example, where an appropriate person cannot be found, the local authority may have to bear the costs of remediation.

### 1.2.1 Regulatory role of local authorities under Part IIA

The principal regulators for Part IIA are the local authorities, and their main responsibilities are:

- ◆ To cause their areas to be inspected in order to identify contaminated land
- ◆ To establish who may be the appropriate person(s) to bear responsibility for remediation of the land;
- ◆ To decide, after consultation, what remediation might be required in any individual case and ensure that such remediation takes place, by serving a remediation notice where necessary
- ◆ To record information on a public register about their regulatory actions; and
- ◆ To decide whether any such land should be designated a Special Site

The Council is obliged to set out its approach for inspection as a written strategy.

## 1.2.2 Regulatory role of Environment Agency

The Environment Agency has an important complementary regulatory role under the Part IIA regime. This includes:

- ◆ The provision of information and advice, including site specific guidance, to local authorities
- ◆ The regulation of Special Sites
- ◆ The preparation of a national report on the state of contaminated land

The Contaminated Land (England) Regulations 2000 define “Special Sites”, which includes land associated with the following situations:

- pollution of controlled waters as defined in the Regulations
- chemical weapons manufacture
- atomic weapon manufacture
- biological weapon manufacture
- contamination by waste acid tars
- refining of petroleum
- manufacture of explosives
- nuclear sites
- land owned by the Ministry of Defence
- land on which prescribed processes designated for central control have been carried out

## 1.2.3 Definition of contaminated land under Part IIA

Section 78A(2) defines contaminated land for the purpose of Part IIA as:

*"any land which appears to the Local Authority in whose area it is situated to be in such a condition, by reason of substances in, on or under the land, that*

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

*pollution of controlled waters is being, or is likely to be caused"*

So, although land may be polluted, unless it presents a significant risk to a receptor such as a human being, crops, animals, buildings or controlled waters, the mere presence of a former contaminative use does not require immediate action by the local authority.

It should be noted that all future references to contaminated land within this document refer to the statutory definition as defined above.

## 1.2.4 Principles of pollutant linkages

The DETR Circular 02/2000 follows established approaches to risk assessment, including the concept of **pollutant linkages**.

A **pollutant linkage** is the relationship between a **contaminant**, a **pathway** and a **receptor**. A 'pollutant' is the contaminant in a pollutant linkage. Unless all three elements of a pollutant linkage are identified in respect of a piece of land, 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 with 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 to cause pollution of controlled waters.

A **RECEPTOR** is either:

- (a) a living organism, a group of living organisms, an ecological system, or property which:
  - ◆ is in a category listed in Table A of DETR Circular 02/2000 (see below) as a type of receptor, and
  - ◆ is being, or could be, harmed, by a contaminant; or
- (b) controlled waters, which are being, or could be, polluted by a contaminant.

Receptors are defined in Table A of DETR Circular 02/2000 as:

- 1 **Human beings**
- 2 Any **ecological system**, or living organism forming part of such a system, within a location which is, amongst others:
  - ◆ a site of special scientific interest
  - ◆ a national nature reserve
  - ◆ a site of special protection for birds
  - ◆ a special area of conservation and special protection area
  - ◆ a national park
- 3 **Property** in the form of:
  - ◆ crops, including timber;
  - ◆ produce grown domestically, or on allotments, for consumption;
  - ◆ livestock;
  - ◆ other owned or domesticated animals; and
  - ◆ wild animals, which are the subject of shooting, or fishing rights.
- 4 **Property** in the form of buildings.

A **PATHWAY** is one or more routes or means by or through which a receptor:

- ◆ is being exposed to, or affected by, a contaminant, or
- ◆ could be so exposed or affected.

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;
  - ◆ is resulting in the pollution of the **controlled waters** which constitute the receptor; or
  - ◆ is likely to result in such pollution.

### 1.2.5 Principles of risk assessment

DETR Circular 02/2000 promotes a risk-based approach to dealing with contaminated land. "Risk" is defined as the combination of:

- ◆ 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
- ◆ 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.

### 1.2.6 Requirements of the strategic approach

In carrying out its inspection duty, the local authority is required to take a strategic approach to the identification of land that merits detailed individual inspection. This approach is required to:

- ◆ be rational, ordered and efficient;
- ◆ be proportionate to the seriousness of any actual or potential risk;
- ◆ seek to ensure that the most pressing and serious problems are located first;
- ◆ ensure that resources are concentrated on investigating in areas where the authority is most likely to identify contaminated land; and
- ◆ ensure that the local authority efficiently identifies requirements for the detailed inspection of particular areas of land.

In developing this strategic approach, the local authority is required to reflect local circumstances. In particular it is required to consider:

- ◆ any available evidence that significant harm or pollution of controlled waters is actually being caused;
- ◆ the extent to which any receptor is likely to be found in any of the different parts of the authority's area;
- ◆ the extent to which any of those receptors is likely to be exposed to a contaminant;
- ◆ the extent to which information on land contamination is already available;
- ◆ the history, scale and nature of industrial or other activities which may have contaminated the land in different parts of its area;
- ◆ the nature and timing of past redevelopment in different parts of its area;
- ◆ the extent to which remedial action has already been taken by the authority or others to deal with land-contamination problems or is likely to be taken as part of an impending redevelopment; and
- ◆ the extent to which other regulatory authorities are likely to be considering the possibility of harm being caused to particular receptors or the likelihood of any pollution of controlled waters being caused in particular parts of the local authority's area.

### **1.3 Development of the Strategy**

The strategy has been developed to meet the requirements of the Statutory Guidance, and with particular reference to "Contaminated Land Inspection Strategies -Technical Advice for Local Authorities" issued in a draft form by the Department of the Environment, Transport and the Regions in April 2000.

The Council's Environment and Transportation Management Board on the 23 April 2001 and the Council's Policy Board formally adopted the strategy on the 2<sup>nd</sup> May 2001. The adopted Strategy was then published and copied to the Environment Agency during June 2001.

### **1.4 Objectives of the Strategy Document**

- ◆ To meet the requirements of DETR Circular 02/2000 in producing, formally adopting and publishing a written strategy by the end of June 2001.
- ◆ 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 make information freely available to all relevant sections of the Council to enable consideration to be given about land contamination in policy making processes, and bringing sites forward for economic development.
- ◆ To make information freely available to all relevant sections of the Council to enable potential liability issues associated with their own land to be fully assessed.
- ◆ To avoid any unnecessary blight of land.

- ◆ To provide information to the Environment Agency for its annual report on Contaminated Land. The first such report was published in 2002 (EA, 2002).
- ◆ To make available to any interested parties, information about the Council's intentions with respect to Contaminated Land.
- ◆ To provide a mechanism whereby the strategy is reviewed on a regular basis to allow for changes in Guidance etc

## 2 Characteristics of the Kirklees Areas

This section gives background information about the area of Kirklees Metropolitan Council and highlights how some of the factors, in relation to potential contaminants, pathways and receptors, will influence the Council's approach to inspection for contaminated land.

### 2.1 Geographical Aspects

Kirklees is the third largest Metropolitan district in the country, covering an area of 41,000 hectares (160 square miles). This part of West Yorkshire reveals many contrasting landscapes, from scenes of industrialisation in the main valleys to sparsely populated high Pennine moorlands around Marsden and Holmfirth in the west. The River Calder below Dewsbury is the lowest point in Kirklees at 120ft above sea level. The highest is Black Hill to the south west of Holmfirth at 1,908ft above sea level.

The Kirklees area also takes in 4,600 hectares of the Peak District National Park, and stretches to the borders with Leeds, Bradford and Wakefield in the East.

#### 2.1.1 Geological Characteristics

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 radon emissions from granite or acid waters rich in iron from old coal mine workings.

The physical appearance of Kirklees is due largely to the Carboniferous geology of the area which alternates between grit, sandstone or flagstone with soft shales or mudstone. There are thin layers of coal seams in the Millstone Grit and many more in the Coal Measures.

The regional tilt of local rock is eastward, and the process of weathering has created a series of escarpments with steep westward facing slopes and gentler slopes to the east. Longwood Edge and Crosland Edge in Huddersfield are examples of these. Beneath these within the Holme Valley lies the boundary between the Coal Measures and the older rough rock, which forms the uppermost bed of the Millstone Grit in the area to the south and west of Huddersfield. Coal Measures form the uppermost beds in the area to the east and north of Huddersfield.

Peat beds cover the uplands plateau, head and landslip materials occur on the valley sides. Isolated patches of boulder clay occur in the north of the district. Alluvium and River Terrace Deposits are also found in varying thickness throughout the river valleys.

### **2.1.2 Hydrogeological Characteristics**

There are no major aquifers in the district and no public drinking water supply sources abstracted from the rock within the district. However, the Millstone Grit is of great regional importance and supports several hundred private drinking water abstractions and three commercial water-bottling plants. The largest of these abstracts one hundred million litres of water annually.

The Coal Measures, Alluvium and River Terrace Deposits are classified as minor aquifers and support only a small number of licensed abstractions mainly for use in industrial purposes.

## **2.2 Current Land Use Characteristics**

Kirklees was formed in 1974 when local government reorganisation brought together 11 former boroughs. In population terms, Kirklees is the seventh largest Metropolitan Borough in the country, with approximately 388,500 people.

### **2.2.1 Population Distribution**

There are several small centres of population in the numerous villages within the area, but the main urban areas are centred on the following 5 towns: (Appendix 2 highlights the main centres of population).

**Table 1: Population figures for main urban areas in Kirklees**

<b>Town</b>	<b>Estimated Population</b>
Huddersfield	130,200
Dewsbury	55,600
Batley	45,600
Heckmondwike	11,300
Cleckheaton	44,600

It is anticipated that within the next 5 years the number of people within the district will remain approximately the same. However, the number of households is expected to increase. As the number of households increases new land will need to be brought forward to meet the requirement.

The Council has an objective of securing that 65% of any new housing is developed on brownfield sites. This is the central issue to be addressed in the review of the statutory Kirklees Unitary Development Plan (UDP). It is known that about one-third of the brownfield sites identified in the National Land Use Database (NLUD) for Kirklees are coincident with or adjoin potentially contaminated sites. 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.

### **2.2.2 Agriculture**

Of the 41,000 hectares within Kirklees, 29,340 are designated as greenbelt land, and agriculture is considered to be a significant land use.

### **2.2.3 Council owned Land**

The Council and its predecessors own or have owned significant land and property holdings within the Metropolitan boundary. The portfolio of council owned land currently comprises:

- ◆ 29,000 houses
- ◆ 194 schools
- ◆ 58 buildings delivering social services
- ◆ 130 other community buildings
- ◆ 80 car parks
- ◆ over 2,000km of roads, and
- ◆ over 1,620 hectares of land

### **2.2.4 Key Property Types**

There are 21 Ancient Monuments within the district. The most prominent of these is Jubilee Tower at Castle Hill, Almondbury. Positioned on the urban fringes of Huddersfield, it provides a landmark across the south and west of the region.

There are approximately 4,500 listed buildings, comprising 1% of all the listed buildings in England. The Council has also designated 56 Conservation areas. These are places where buildings co-exist in an environment that exhibits special features deemed worthy of retention and enhancement.

### **2.2.5 Protected Ecological Receptors**

Certain Ecological Systems are defined in the legislation as requiring specific protection, and Kirklees has the following:

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

- ◆ Honley Station
- ◆ Dark peak/south Pennine Moors
- ◆ Park Clough (North West of Marsden)

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

- ◆ South Pennine Moors

The area also takes in 4,600 hectares of the Peak District National Park. The map in Appendix 1 shows the position of the National Park, the SSSI's and the SPA.

### **2.2.6 River Network and Key Water Bodies**

The main arteries of the Rivers Calder, Colne and Holme dominate the river catchment network of Kirklees. These waters start in the Pennines on the western edges of the authority and drain easterly, leaving the borough in the River Calder, near Dewsbury. Along with the river network, there is the Calder and Hebble Navigation Canal and the Huddersfield Narrow Canal.

In the western Pennine regions of the district, several of the river tributaries have been dammed for water supply. There are over 20 reservoirs, of varying capacity, within Kirklees.

Industrial activity over the last 150 years has led to the pollution of many rivers, and the water quality varies greatly, ranging from very good on some sections, to bad on particular stretches of the River Calder and Spen Beck.

## **2.3 Historical Industrial Activities**

Some of the towns within Kirklees, such as Huddersfield, Dewsbury and Batley, are well known industrial and commercial centres. The main sources of industrial wealth originated from the textile, engineering and chemical (including dyestuffs) industries. Industrial premises tend to be concentrated in the inner urban areas and along the river valleys, but there are also groups of such premises throughout the built-up areas, and many are of 19<sup>th</sup> century origin.

There is evidence of ancient sites across the district having strong connections with the Bronze Age, the early Iron Age, the Roman and Anglo Saxon periods, and the Norman invasion.

The entire district to the east of Huddersfield lies within the exposed Yorkshire coalfield. The Kirklees coal mining industry began as early as 1357, and at one time there were 40 mines operating within three miles of Dewsbury, providing fuel for the shoddy mills. Underground extraction of coal has now ceased, with the exception of one small private sector mine.

Business and industry in Kirklees continues to be based mainly on traditional manufacturing activities, textiles, engineering and chemicals. In recent years, there has been some

diversification as new industries have become established and the service sector has grown.

The Council has had a longstanding land reclamation programme funded for many years by the derelict land grant, and many sites have also been remediated as a result of redevelopment controls, instigated through Planning approvals.

## **3 Aims and Objectives of the Strategy**

Land contamination has significant impacts on both the environment and the economy. These areas are key considerations in developing the aims of this Inspection Strategy.

The Council's approach emphasises the need to be open and accountable for its actions. This document was therefore initially presented as a consultation draft and made available to all interested sections of the community. Comments were considered before the strategy was adopted.

### **3.1 Aims**

- ◆ To ensure compliance with and enforcement of Part IIA of the Environmental Protection Act 1990 inserted by Section 57 of the Environment Act 1995.
- ◆ To ensure that where redevelopment of land takes place within Kirklees, the planning process deals effectively with any land contamination so that the land is suitable for its intended use.
- ◆ To address the liability issues associated with the Council's existing and former land holdings and avoid any new liability associated with land transactions.

### **3.2 Objectives**

- ◆ Ensure that where a planning application is received for a site which is potentially contaminated either:
  - (a) Planning permission is not approved until a site investigation with respect to contamination has been undertaken, remedial works have been approved and the works completed prior to development commencing, or
  - (b) Where, after consultations, it is considered that the risk associated with the development is low and planning permission is granted, any conditions relating to contaminated land must be discharged prior to development commencing.
- ◆ Forward to Planning Services, twice a year, an up to date copy of the Attribute data associated with the Geographical Information System (GIS) in the Environment & Transportation Service. This will assist in the identification of potential contaminated land issues and speed up the decision making process.

- ◆ Compare the database of potentially contaminated sites with council ownership records to establish any potential liabilities, and with a view to identifying those sites for priority inspection and possible remediation.
- ◆ Assess the 4000 potentially contaminated land sites across Kirklees and develop a list for inspection, ensuring, as far as possible, that the most pressing sites are dealt with first.
- ◆ In firming up the list of priority sites regard will be had to the Council's objective of securing 65% of new housing on brownfield sites.
- ◆ Forward to the Environment Unit, twice a year, an up to date copy of the Attribute data associated with the Geographical Information System (GIS) in the Environment & Transportation Service. This will assist with the production of the Council's Biodiversity Action Plan.

### 3.3 Review

A review of the Contaminated land Strategy that had originally been published in June 2001 was commenced in September 2002 and completed in June 2003. All external bodies, internal departments and neighbouring local authorities listed in appendix 4 were informed of the review and asked if they would like to make comment. All responses were considered and this document has been amended to reflect the changes made.

## 4 Priority actions and timescales

To date, the work carried out in Kirklees has focused on researching OS Maps and other sources of information in an attempt to identify where, within the Council's area, potentially contaminative uses have taken place. This exercise has identified approximately 4,000 potentially contaminated sites across the district. Due to the previous uses of the land, many of these sites will contain substances in, on, or under the ground, which have the potential to cause harm.

However, in order to be designated as contaminated land, within the definition of Part IIA, these sites must have both a **pathway** by which significant harm may be caused, and a **receptor** on which significant harm can be inflicted. So, although the site may be land in a contaminative state, it cannot be designated as contaminated land if either the pathway or the receptor is missing from the pollutant linkage. It should be emphasised that only a small proportion of these sites that have been subject to potentially contaminated land uses are expected to meet the strict definition of contaminated land.

In order to ensure that contaminated land is not created in the future, for example by the introduction of a receptor through the planning process, all planning applications will be screened to ensure that appropriate conditions are imposed before development of the site begins.

### 4.1 Priorities

#### 4.1.1 Stage 1 - Dealing with urgent sites

Throughout the process of prioritisation and inspection, if any sites are strongly suspected of causing significant harm, or if any site is referred by the Environment Agency for determination as a 'Special Site', then these will need to take priority.

If there is considered to be a need, investigative work and determination of contaminated land may have to begin before completion of the prioritisation process. The Regulations recognise this scenario is realistic and the proposed approach is in line with the guidance.

#### **4.1.2 Stage 2 - Production of the strategy document**

The following stages were involved in the production of the strategy document:

1. Production of the draft consultation strategy
2. Consultation period
3. Modification of draft strategy
4. Formally adopt and publish the strategy
5. Forward a copy of adopted strategy to the Environment Agency

#### **4.1.3 Stage 3 - Purchase/Acquire and Input additional data onto the G.I.S**

To be able to begin the process of prioritisation, the Council intends to purchase/acquire additional data and input this onto the existing G.I.S. Section 5.3.2 gives details of the data sets and packages still required.

#### **4.1.4 Stage 4 - Prioritisation of sites for detailed inspection**

In carrying out its inspection duty the local authority is required to seek to ensure that the most pressing and serious problems are located first (Annex 2 (3.3) Circular 02/2000 (DETR, 2000a)). The 4,000 (approx.) potentially contaminated sites previously identified by the Council will form the starting point for this prioritisation exercise.

In an attempt to ensure that the most pressing and serious problems are located first, it is intended, initially, to assess those sites which have been subject to the most heavily contaminative industries and which therefore present the greatest 'risk'. The list in Appendix 5 illustrates which of the 'contaminative uses' have been chosen, together with the number of sites within each category.

Each of the 1146 sites in priority group 1 will then need to be ranked in order of risk. Throughout this exercise the factors influencing the ranking will be taken into consideration, these will include:

- the potential toxicity of the substances associated with the 'previous use' of concern
- the proximity to vulnerable receptors e.g. residential properties, schools etc
- the existence of a potential pathway

Throughout this exercise the Council's priorities will be:

- To protect human health
- To protect controlled waters
- To protect designated ecosystems
- To prevent damage to property

The GroundView™ Site Prioritisation Tool which links in with the department's GIS has been purchased for this stage. It is also anticipated that some walkover survey work will be necessary in order to fill in some of the gaps in the data in relation to pathways and receptors.

On completion of assessment and ranking of sites within priority group 1, the exercise will be repeated for priority groups 2 & 3 (see Appendices 6 & 7).

It is anticipated that this process may provide information that would reveal imminent threats to humans, controlled waters or protected areas of the environment posed by the contaminated land. If the evidence demonstrates a need for urgent action, this will be taken as soon as practicable alongside the rolling programme of inspections.

#### **4.1.5 Stage 5 - Detailed inspection of sites**

Once the risk ranking process has been completed, the detailed inspection of sites will commence. Sites will be inspected in order of priority, based on the outcome of the previous stage. Where contaminated land sites are identified, they will be determined in accordance with statutory requirements. The sites which are in a contaminative state, but which do not constitute contaminated land, will only be inspected further if the status of the land changes, for example, if a new receptor is introduced through the planning process.

## **4.2 Timescales**

Anticipated timescales involved in completing the above stages are contained in the work programme in Appendix 8. However, it is the intention to keep the Strategy under regular review so that performance can be monitored.

# **5 Procedures**

Procedures have been drawn up to describe how contaminated land issues will be handled within the Council. This section also details the level of service the community can expect from the Council in dealing with these issues.

## **5.1 Internal management arrangements for inspection and identification**

### **5.1.1 Internal Management Arrangements**

Within Kirklees Council, Environment & Transportation Service has responsibility for the implementation of Part IIA Environmental Protection Act 1990.

As a subsection of the Pollution and Noise Control Team, the Contaminated Land Officers report directly to the Pollution Control Manager who, in turn, reports to the Environmental Health Manager.

The team can be contacted at:  
West Riding House

9 Manchester Road  
Huddersfield HD1 3HH  
Tel: 01484 221000  
Fax: 01484 226409  
E-mail: [contaminated.land@kirklees.gov.uk](mailto:contaminated.land@kirklees.gov.uk)

### **5.1.2 Arrangements for inspection of land**

Members of the Pollution and Noise Control team will undertake the initial reconnaissance/assessment of sites. It is likely, however, that certain aspects of the investigation (and possibly remediation) of land will require the involvement of specialists/experts. Such services may include, amongst others;

- Laboratory analysis of potentially contaminated soils
- Intrusive site investigations
- Specialist consultations
- Remedial technologies

Where the Authority needs to employ such external parties it will do so in compliance with financial regulations. Any assessment will be carried out in accordance with current government guidance and all inspections will be carried out in accordance with the Authorities Health and Safety Policy and in consideration of appropriate guidance.

## **5.2 The Local Authority's interest in its own land**

The Council and its predecessors own or have owned significant land and property holdings within the Metropolitan boundary.

This ownership information is held within the Council's Design and Property Service (formally known as Estates, Property and Markets Service) which has sole responsibility for its maintenance and development. The ownership records and information are currently being transferred to a digital mapping database.

The potentially contaminated sites that have been identified for priority 1 (appendix 5) inspection by Environment & Transportation Service will form the starting point for the Council's interest in its own land.

Fundamental to the consideration of the Council's interests will be to establish which of this initial batch of sites:

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

Part of this process will entail a careful comparison of the sites and ownership records using respective Geographical Information Systems. However, the tracing of previous and leasehold ownership will involve the manual use of paper maps and records, and this will be a lengthy process.

To fully establish which of the sites fall within the above categories, it will also be necessary to collate further information about the sites from various sources within the Service, and the majority of the information is not held electronically. Typically, this information will include:

- Ordnance Survey Maps ( digital and paper based )
- Deed packets and conveyance documents
- Commercial leases and agreements
- Plans and registers (pre 1974)
- Previous surveys and investigations
- Asset valuation files
- Central property files
- The Asset register

Together with that information already collected for the strategy, and in close consultation with Environment & Transportation Service, Legal Services and the relevant vesting Service (ie Social Services, Housing etc), this package of information will be evaluated and assessed with a view to identifying sites for priority inspection and possible remediation.

Design and Property Service will also work closely with Legal Services to establish the current potential liabilities for the Council under the legislation, and review the Council's standard legal documentation for dealing with land and property transactions.

## **5.3 Interaction with Neighbouring authorities**

A situation may occur where contaminated land located outside the local authority, or straddling the border with a neighbouring authority, is having a significant impact on specified receptors within Kirklees.

The Act states that where land outside, but adjoining or adjacent to, the local authorities area is within the definition of "contaminated land" and that significant harm or pollution of controlled waters is or will be caused within its area, then the authority may exercise its functions under Part IIA as if the land were situated within its area. This provision is stated to be without prejudice to the functions of the authority in whose area the land is actually located.

If such circumstances are encountered liaison with the adjacent Local Authority will take place prior to initiating any specific action.

## **5.4 Information collection**

This section gives details of the information requirements that will enable identification of potential sources, pathways and receptors for contamination within the district.

### **5.4.1 Information collected to date**

In May 1995, a survey was carried out to identify potentially contaminated sites within the Kirklees Metropolitan Council district. The survey adopted a methodology laid down by the DoE in the 1991 consultation paper "Public Registers of Land Which May Be Contaminated" and was adapted to take into account the results of the DoE 1990 "Pilot Study of Potentially

Contaminated Land in Cheshire”. Appendix 9 gives the full list of those ‘uses’ that were utilised in the survey.

The primary emphasis of the survey was to carry out a systematic search of available sources of information to provide a baseline level of data for each site, and to create a portfolio of contaminative uses operated on each site.

The data sources used in the survey were;

### **OS Maps**

- ◆ 1854 County Series - 6 inch
- ◆ 1893 County Series - 25 inch
- ◆ 1907 County Series - 25 inch
- ◆ 1918 County Series - 25 inch
- ◆ 1933 County Series - 25 inch
- ◆ 1948 County Series - 6 inch
- ◆ 1965 County Series - 6 inch
- ◆ 1950/60 1:2500 maps held by Kirklees Planning Department
- ◆ Latest 1:1250 maps held by Kirklees Planning Department

### **Primary Collated Sources**

- ◆ Derelict and Despoiled Land Survey - 1973 and 1993
- ◆ HMIP Public Registers of Prescribed Processes
- ◆ Register of Waste Disposal Licences held by Kirklees Minerals Planning Section
- ◆ Landfill Gas Constraint Maps held by Kirklees Minerals Planning Section
- ◆ Register of Licensed Scrap yards held by Kirklees Environment &

### **Secondary Sources**

- ◆ HMIP Register of Premises regulated under the Radioactive Substances Act 1960
- ◆ NRA Register of Effluent Discharge Consents
- ◆ Other historic maps - Tithe Maps, Town Plans
- ◆ Fire Insurance Plans published by Goad
- ◆ Fire Service records of petrol storage sites
- ◆ Environment & Transportation Service' general files
- ◆ Minerals Planning files
- ◆ Aerial photographs

### **Trade Directories**

- ◆ Selected Directories dating from 1837 to 1922 at 8-15 year intervals

The survey identified approximately 4000 potentially contaminated sites. The information was originally transferred onto a series of 1:10000 base maps, and data sheets were compiled for each site, detailing the portfolio of contaminative uses, dates of operation and the sources of information. More recently the data has been transferred onto the Geographical Information System (GIS) held in the Pollution and Noise Control section of Environment & Transportation Service.

Other information that has now also been captured onto the GIS includes those detailed in the table below.

**Table 2: Information Captured onto the GIS**

<b>Data</b>	<b>Source</b>
Integrated Pollution Control Register which details premises that operate under local & central control	KMC Environment & Transportation files
Ecological Areas defined as <b>Receptors</b> in DETR Circular 02/2000	English Nature
Post 1974 operational/non-operational landfill sites	Environment Agency / KMC Waste Disposal
Ancient/Historic Monuments	English Heritage
Licensed Ground and Surface Water Abstraction Points	Environment Agency
Discharge Consents for the Discharge of Effluents into Controlled Waters	Environment Agency
Source Protection Zones for Major Drinking Water Abstraction Points	Environment Agency
Location of surface watercourses, and river quality data (Biological & Chemical)	Environment Agency
Nitrate Vulnerable Zones	Environment Agency
Allotments	KMC
Schools & Nurseries	KMC
Playing Fields / Parks	KMC
Geological Maps 1:50000 (Sheets 78 & 86) detailing the solid and superficial geology underlying the Kirklees area	British Geological Society
Maps of artificial Deposits (made & worked ground) within the Kirklees area - 1:50000	British Geological Society
Data Management Tool - to enable information from inspection of land to be stored effectively.	GroundView™
Site Prioritisation Tool - to enable the most pressing sites to be dealt with first	GroundView™ Site Prioritisation Tool

Environment & Transportation Service also holds for reference a paper copy of:

Policy and Practice for the Protection of Groundwater, Groundwater Vulnerability 1: 100000 Map Series (Sheet 11 South Pennines).

## 5.4.2 Other Information Requirements

Other data that is yet to be inputted onto the GIS is detailed in the table below.

**Table 3: Information Requirements for GIS**

<b>Data</b>	<b>Source</b>
Historical Information relating to Site Investigation Reports/Remediation Strategies undertaken on land which has been subject to 'Development Control'	KMC Planning Department, Environment & Transportation Service' files
Historical Ordnance Survey maps	Landmark
Digitise locations of Private groundwater abstractions	Environment & Transportation Service' files
Digitise Locations of current and disused Landfill Site	Environment & Transportation Service' files
Digitise Locations of parks & recreational grounds as 'Receptors' for use in conjunction with the GroundView™ Site Prioritisation Tool	Leisure Services
Digitise Locations of Reservoirs as 'Receptors' for use in conjunction with the GroundView™ Site Prioritisation Tool	KMC
Digitise Locations of other water bodies including rivers and canals as 'Receptors' for use in conjunction with the GroundView™ Site Prioritisation Tool	KMC

## 5.5 Information and complaints

From time to time, the Council may receive a complaint or information regarding contaminated land. Upon investigation, information may be forthcoming which could impact on the approach to inspection laid down in this document. Procedures to be adopted include the following:

### 5.5.1 Complaints/enquiries

It is the intention of Environment & Transportation Service to respond to complaints/enquiries as quickly as possible, but in any case within:

- ◆ 5 working days, or
- ◆ immediately, if an act of contamination is occurring at the time of notification

### 5.5.2 Confidentiality

All complainants will be asked to supply their names and addresses, and details of the site being complained about. The identities of complainants will, as far as is practicable, remain confidential.

### **5.5.3 Anonymously supplied information**

Environment & Transportation Service uses its discretion in investigating alleged nuisances based on anonymously supplied information, and this general policy will be adopted for contaminated land issues.

### **5.5.4 Anecdotal evidence**

Any anecdotal evidence provided to the Council relating to contaminated land will be noted, but no designation of contaminated land will occur without robust scientific evidence. In all cases, contaminated land officers will use knowledge and experience to decide what, if any, investigation is required following receipt of a complaint or information.

## **5.6 Risk Assessment**

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

### **5.6.1 CLR and ICRL guidelines**

Until recently the 'Trigger values' in the ICRL Standards developed in the late 1970s and early 1980s were seen as the backbone of the contaminated land regime in the U.K. by which the risk posed by contaminants at a particular site could be assessed (ICRL, 1987). These were withdrawn in December 2002 as they are seen by DEFRA as not being "suitable for assessing 'significant possibility of significant harm to human health' in the context of the Part IIA regime (DEFRA, 2002a).

Now we have been directed to utilise The Contaminated Land Report (CLR) series of guidance documents (CLR 7-10 and Soil Guideline Values (SGV) and Toxicological (TOX) series) (DEFRA & EA, 2002a-f). These are intended to “ provide regulators, developers, landowners and other interested parties with relevant, appropriate, authoritative and scientifically based information and advice on the assessment of risks arising from the presence of contamination in soil” (Environment Agency, 2002a).

The SGVs are ‘intervention values’ (i.e. levels above which there is an unacceptable risk to human health), they are not intended as clean up or remediation standards (DEFRA & EA, 2002f).

DEFRA has identified almost 50 contaminants that are classed as “ having the potential to affect human health and the environment”(DEFRA & EA, 2002b). To date SGVs have only been calculated for seven substances.

### **5.6.2 Risk assessment for other substances**

It is likely that guideline values will be requires for substances that are not yet covered by SGVs. In these cases, reference may be made to authoritative sources of information, such as generic guidelines adopted in other countries. However, if guidelines from other countries are referred to, it is important to bear in mind the significant difference in remediation standards that may exist between the UK and other countries, and also what assumptions or reference standards may have been made or used in developing these standards.

### **5.6.3 Risk assessment models**

Whilst generic guidelines will be used in the first instance, it may be necessary to further define the risk by generating a site specific value for a contaminant. To achieve this, a risk assessment model will be used. The ‘Contaminated Land Exposure Assessment Model’ (DEFRA & EA, 2002e) will be the preferred option. However, other risk assessment models that adopt either deterministic or probabilistic methods of deriving the risk may also be considered.

### **5.6.4 Risk assessment for controlled waters**

Advice will be sought from the Environment Agency on risk assessment if controlled waters are the receptor in a particular pollutant linkage. It is anticipated that risk assessments and remediation will be carried out in accordance with Environment Agency guidance as laid down in R&D Publication 20 “Methodology for the Derivation of Remedial Targets for Soil and Groundwater to Protect Water Resources” (Environment Agency, 1999).

## **5.7 Interaction with other regulatory regimes**

There are other regulatory actions that can be taken to deal with contamination on land. Overlaps with planning, water pollution, waste management and **IPC** 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.

### **5.7.1 Planning**

The majority of contaminated land issues are currently 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 & Transportation Service is currently working closely with Planning Services (Development Control) to ensure that where redevelopment of land takes place within Kirklees, the planning process deals effectively with any land contamination so that the land is suitable for its intended use.

### **5.7.2 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.

### **5.7.3 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.

### **5.7.4 Integrated Pollution Prevention and Control (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.

## **6 General Liaison and Communication strategies**

Much of the work proposed in this strategy will be collaborative and require effective liaison with other bodies.

### **6.1 Consultees**

A list of consultees is included in appendix 4. Each organisation were invited to comment on the consultation draft and review of the strategy. Specific organisations will also be

consulted in relation to specific sites where the circumstances are appropriate. For example, if an ancient monument is being affected then English Heritage would be invited to comment on the issues involved.

## **6.2 Communicating with owners, occupiers and other stakeholders**

The Council's approach to its regulatory duties is, in the main, to seek voluntary action before considering enforcement action. This approach will be adopted for issues of land contamination, recognising that in many cases more effective remediation can be achieved by agreement than by enforcement. Wherever possible attempts will be made to reach an amicable solution.

The regime also provides two incentives to undertake voluntary action. Firstly, any materials that require disposal as a result of voluntary remediation will be exempt from landfill taxes. This exemption does not apply to materials generated as a result of a remediation notice having been served. Secondly, contaminated land (except for Special Sites) will not be entered on the Public Register unless a remediation notice has to be served, thus avoiding the issue of 'blight'.

### **Determination of Contaminated Land**

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

- 1** Write to the owners and/or the occupiers and/or the appropriate persons of the contaminated land at least 5 working days prior to determination of that land, explaining the Council's intention and summarising the reason for the determination.
- 2** Write to the owners and/or the occupiers and/or the 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.
- 3** In conjunction with step 2 notify the Environment Agency of the formal determination.
- 4** If requested by one of the Stakeholders, dispatch a copy of the formal Determination document within 5 working days of receipt of the request.

### **Serving a remediation notice**

If voluntary remediation is not undertaken, a remediation notice will be served on the owners/occupiers and or appropriate persons, as required, specifying the action required.

## 6.3 Powers of Entry

Under Section 108(6) and Schedule 18 of the Environment Act 1995, the Council has been granted powers of entry to carry out investigation. At least seven days' notice will be given of proposed entry onto any premises, unless there is an immediate risk of serious pollution of the environment or serious harm to health or that circumstances exist that are likely to endanger life or health.

Where the site involved is likely to be 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.

These powers will only be used where the appropriate access cannot be agreed.

## 6.4 The Public Register

Under the Regulations, the Council is required to maintain a register for contaminated land. The register will be held in the Pollution & Noise control section of Environment & Transportation Service at West Riding House, Huddersfield and will be accessible, on request, during normal office hours, Monday to Friday.

The Regulations clearly specify the information that can be recorded on this register. This register will therefore include:

- ◆ remediation notices
- ◆ details of site reports obtained by the authority in relation to remediation notices
- ◆ remediation declarations
- ◆ remediation statements
- ◆ notifications of claimed remediation
- ◆ determination of sites as “special sites”
- ◆ any appeals lodged against remediation and charging notices
- ◆ convictions

The public register will **not** include details of historic land use and other records used in the investigation of potentially contaminated land. These are research documents and as such will not be made available to the public.

## 6.5 Provision of information to interested parties

The information relating to historical land uses, which is held on the GIS within Environment & Transportation Service, is available to the public and can be obtained by writing to the department and enclosing a plan of the site of interest.

The cost for such information is charged at an hourly rate as set out in the Service's list of fees and charges document ES25.

## 6.6 Provision of information to the Environment Agency

The Environment Agency is required to prepare an Annual Report for the Secretary of State on the state of contaminated land in England and Wales. This report will include:

- ◆ A summary of local authority inspection strategies, including progress against the strategy and its effectiveness
- ◆ The amount of contaminated land and the nature of the contamination
- ◆ Measures taken to remediate land

As local authorities are the lead regulators on contaminated land, the national survey will clearly be reliant on information provided by local authorities. A memorandum of understanding has been drawn up between the Environment Agency and the Local Government Association (EA/LGA 1998) that describes how information will be exchanged between local authorities and the Environment Agency.

The Council will therefore provide information to the Environment Agency following the guidelines agreed through this national forum. The local authority must also provide information to the Environment Agency whenever a site is determined as contaminated land, and whenever a remediation notice, statement or declaration is issued or agreed. The Environment Agency has supplied standard forms so that this information can be provided in a consistent format, and the Council will adopt these to fulfil its reporting requirements. The first annual report was published by the Environment Agency in 2002 (EA, 2002).

## 7 Review Mechanisms

This strategy outlines the general approach to be taken in inspecting land for contamination. This section will describe instances when inspections will occur outside this general strategic framework, circumstances under which previous inspection decisions should be reviewed and measures to be taken to ensure the strategy remains effective and up-to-date.

### 7.1 Triggers for undertaking non-routine inspections

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**, eg where an incident such as a spill has occurred.
- ◆ **Introduction of new receptors**, eg 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

- ◆ **Responding to information** from other statutory bodies, stakeholders, or other interested parties, which reveal that a site requires urgent action.

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 Triggers for reviewing inspection decisions

There may be occasions when the findings of previous inspection decisions should be reviewed. This might occur, for example, if there were:

- ◆ Significant changes in legislation
- ◆ Establishment of significant case law or other precedent
- ◆ Revision of guideline values for exposure assessment

It is important that all decisions are made and recorded in a consistent manner that will allow efficient review.

## 7.3 Reviewing the strategy

Local Authorities have a duty to keep their inspection strategies under periodic review. The Council felt that it was appropriate to review the milestones in light of progress after the first full year of operation.

A review was commenced in September 2002, and the findings submitted for approval to Members at Cabinet on 3<sup>rd</sup> September 2003.

The review revealed that some changes were required to the Strategy to reflect, in the main, changes to legislation and to the work programme. This document has been updated to reflect those findings.

The work programme will be kept under regular review and providing there are no major detractors then the next full review will commence in July 2006. By this time prioritisation of sites should be almost complete and the inspection process will have commenced.

# 8 Information Management

Environment & Transportation Service holds the GIS that will be the primary tool used to manage the contaminated land information. This system will be used to correlate all information and to determine the proximity of potential receptors (residents, controlled waters etc) to sources of contamination.

An up to date copy of the Attribute data associated with the GIS will be forwarded to Planning Services and the Environment Unit twice a year, at the beginning of January and the beginning of July.

As data becomes available in relation to particular sites, paper copies will be kept for reference in a dedicated filing system, within Environment & Transportation Service.

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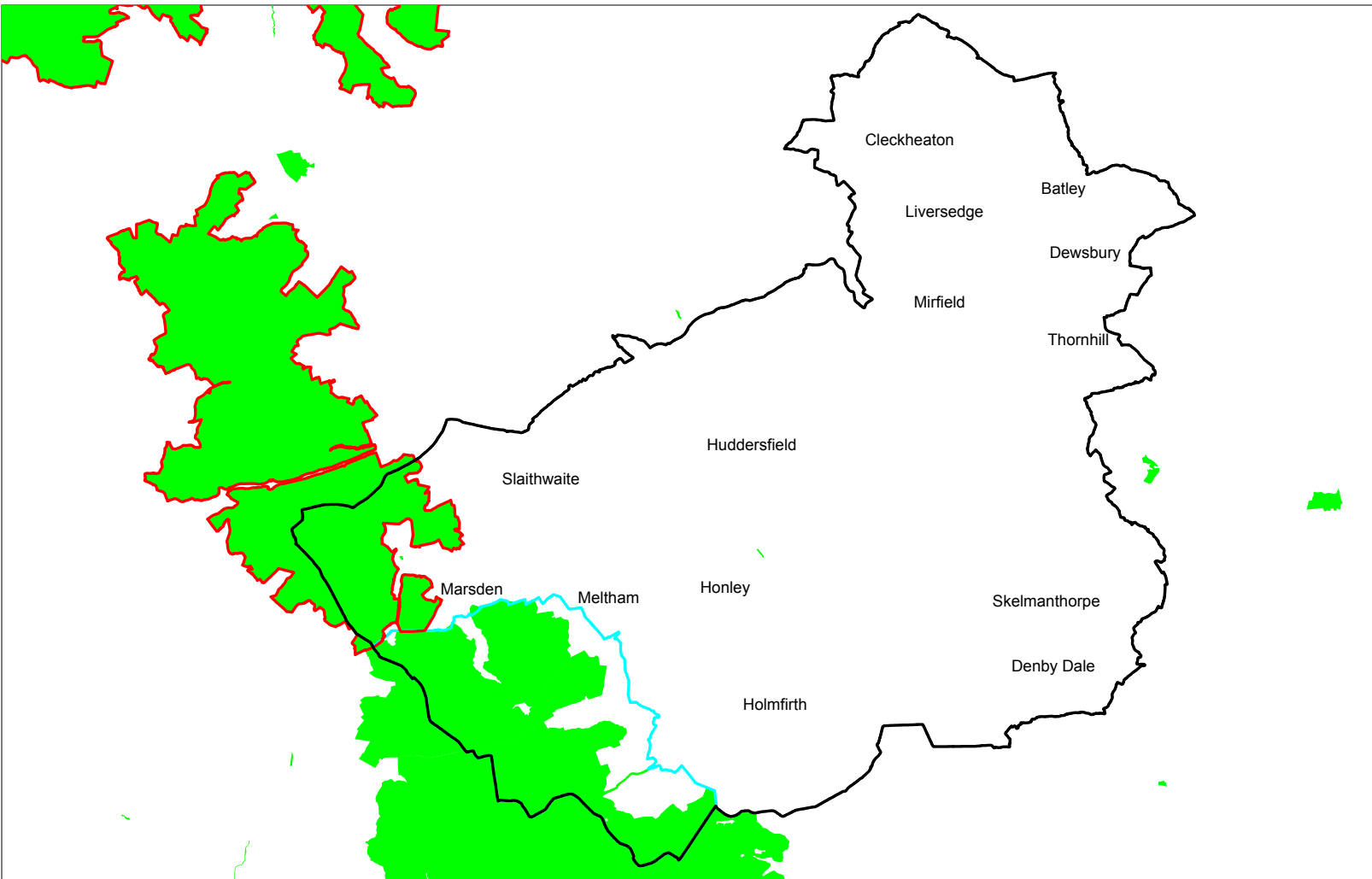
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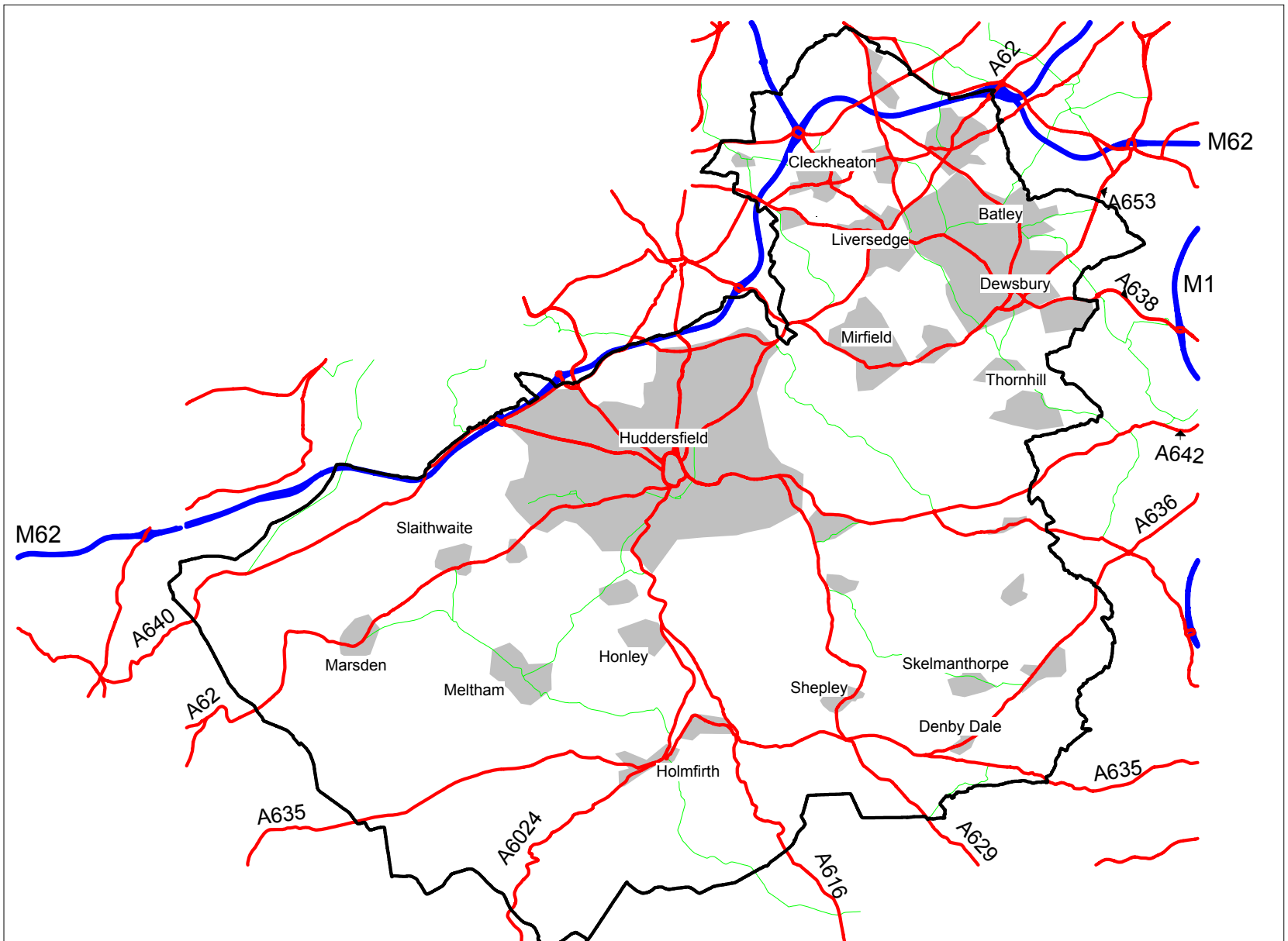
Water Resources Act 1991

**Appendix 1: Ecological Receptors in Kirklees**



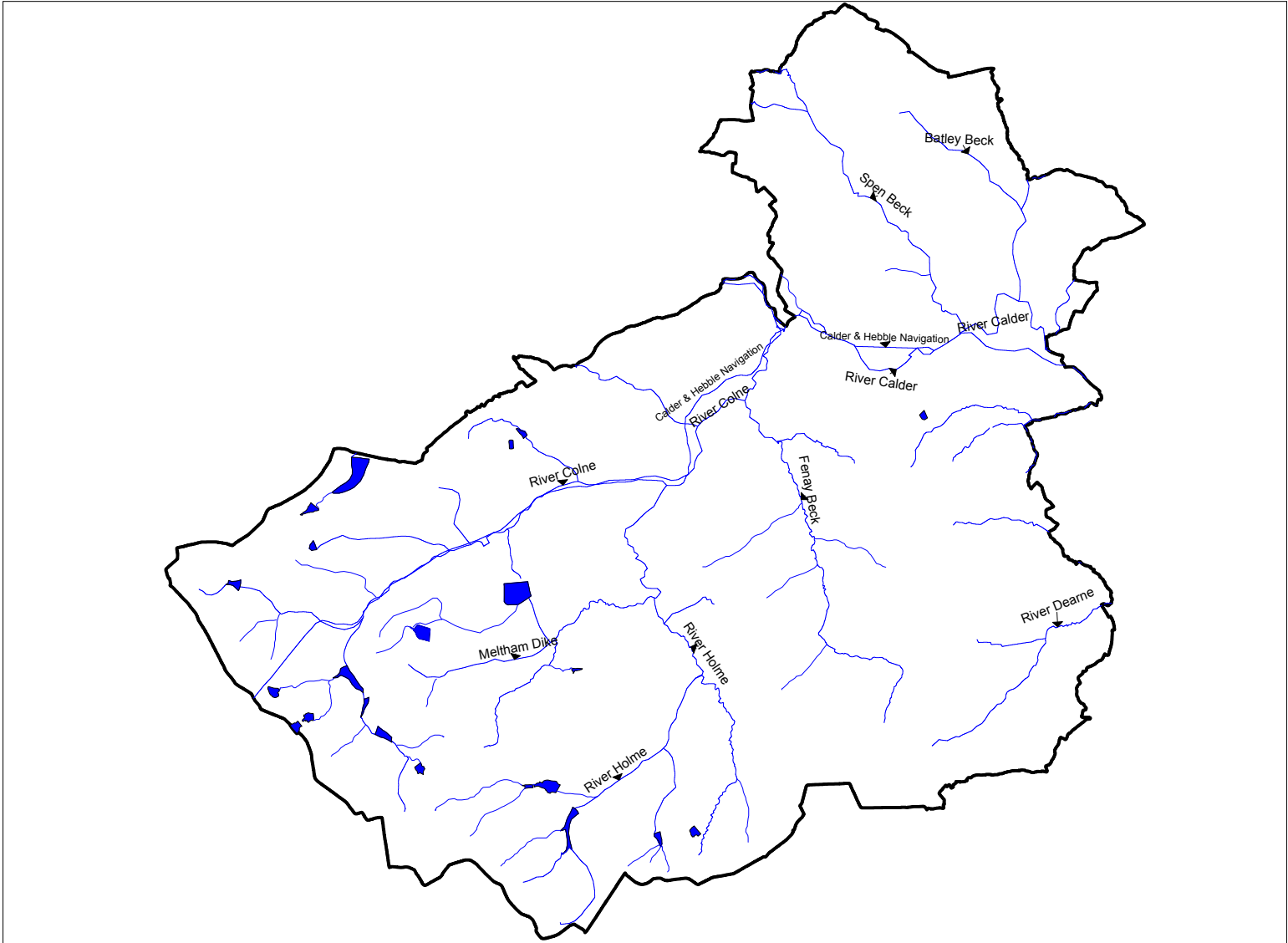
**KEY**

	Site of Special Scientific Interest (SSSI)
	Special Protection Area
	Peak District National Park (within Kirklees) NB not a designated receptor



**Appendix 2: Main Centres of Population in Kirkstall**

**Appendix 3: River Network and Key Water Bodies**



## Appendix 4

### Consultees - Key Organisations

The following identifies the key organisations to be consulted during the implementation of the inspection strategy. The list cannot be exhaustive, as other organisations may come to light during the process.

#### External Bodies

David Walmsley  
Environment Agency  
Phoenix House,  
Global Avenue,  
Leeds LS11 8PG  
Tel: 0113 244 0191  
Fax: 0113 213 4850  
Email: david.walmsley@environment-agency.gov.uk

Mirfield Town Council  
Council Offices  
198 Huddersfield Road  
Mirfield WF14 8BA  
Tel/Fax: 01924 499240

West Yorkshire Ecology  
Leeds City Council  
Department of Leisure Services  
Parks and Countryside Division  
The Town Hall  
The Headrow  
Leeds LS1 3AD  
Tel: 0113 2375310  
Fax: 0113 237 5224  
Email: west.yorkshire.ecology@leeds.gov.uk

DEFRA  
Rural and Marine Environment Division  
Sustainable Agriculture Branch  
Room 141 Nobel House  
17 Smith Square  
London  
SW1P 3JR  
Tel: 020 72385426  
Fax: 020 72386700

Mr J Navaratnam  
English Partnerships  
110 Arpley House  
Birchwood Boulevard  
Birchwood  
Warrington WA3 7QH  
Tel: 01925 651144  
Fax: 01925 411493  
Email:  
johnnavaratnam@englishpartnerships.co.uk

Ian Smith  
Regional Land Use Planner  
English Heritage  
37 Tanner Row  
York YO1 6WP  
Tel: 01904 601977  
Fax: 01904 601999  
Email:ian.smith@english-heritage.org.uk

Brian Davies  
English Nature  
Bull Ring House  
Northgate  
Wakefield WF1 3BJ  
Tel:01924 334500  
Fax: 01924 201507  
Email:brian.davies@english-nature.co.uk

Kirkburton Parish Council  
Burton Village Hall  
Northfield Lane  
Highburton  
Huddersfield HD8 0QT  
Tel 01484 604391  
Email:clerk@kbpc.fsnet.co.uk

Mr Keith Parker,  
Environmental Manager  
The Coal Authority  
200 Lichfield Lane  
Berry Hill  
Mansfield  
NG18 4RG

Meltham Town Council  
Town Hall  
Meltham  
Huddersfield HD7 3AD  
Tel/Fax 01484852367  
Email:clerk@melthamtc.freeserve.co.uk

Dr Sarah Rowles  
Food Standards Agency  
Room 707C  
Aviation House  
125 Kingsway  
London  
WC2B 6NH  
Tel: 020 72768731  
Fax: 020 72768717  
Email:  
sarah-jayne.rowles@foodstandards.gsi.gov.uk

### **Internal Departments**

Keith Faragher  
Head of Planning Services  
Civic Centre III  
PO Box B93  
Huddersfield HD1 2JR  
Tel: 01484 221633  
Email:keith.faragher@kirklees.gov.uk

Kevin Kendall  
Head of Building Control, Licensing & Markets  
PO Box B95  
Civic Centre III  
Market Street  
Huddersfield HD1 2NA  
Tel: 01484 221550  
Email:kevin.kendall@kirklees.gov.uk

Andrew Howard  
Acting Head of Design and Property Service  
Kirkgate Buildings  
Byram St  
Huddersfield HD1 1BY  
Tel: 01484 226022  
Email:andrew.howard@kirklees.gov.uk

John Griffiths  
Head of Economic Development Service  
Civic Centre III  
Huddersfield HD1 2EY  
Tel: 01484 221650  
Email:john.griffiths@kirklees.gov.uk

Members' Services  
Crown Court Buildings  
Princess Street  
Huddersfield HD1 2TT  
Tel: 01484 221801  
Email:members.test@kirklees.gov.uk

Patrick Burnham  
Building works manager  
Flint Street  
Fartown  
Huddersfield  
Email:patrick.burnham@kirklees.gov.uk

Tony Gerrard  
Head of ECS Resources  
Oldgate House  
Huddersfield  
Email:tonygerrard@kirklees.gov.uk

Ann Chapman  
Principal Community Development Coordinator  
Deighton Centre  
Huddersfield  
Email:ann.chapman@kirklees.gov.uk

Kath Haggis  
Contract Manager- Cleaning & Caretaking  
Knowl House  
Knowl Road  
Mirfield

Roger Wilson  
Environmental Waste & Transport Manager  
Vine Street  
Huddersfield  
Email:roger.wilson@kirklees.gov.uk

Gavin Tonkin  
Director of Lifelong Learning  
8<sup>th</sup> Floor  
Oldgate House  
Huddersfield  
Gavin.tonkin@kirklees.gov.uk

Steve Noble  
Assistant Director (Environment)  
Environment & Transportation Service  
West Riding House  
9 Manchester Road  
Huddersfield HD1 3HH  
Tel: 01484 221000  
Email:steve.noble@kirklees.gov.uk

Jane Brady  
Head of Revenues & Benefits Service  
Civic Centre I  
Huddersfield  
Email:jane.brady@kirklees.gov.uk

Tony Hood  
Director of Housing  
Civic Centre I  
Huddersfield  
Email:tony.hood@kirklees.gov.uk

Graham Shaw  
Special Projects Manager  
9 Station Street  
Huddersfield  
Email:graham.shaw@kirklees.gov.uk

Terry Brown  
Assistant Director (Highways)  
Environment & Transportation Service  
Flint Street  
Fartown  
Huddersfield  
Email:terry.brown@kirklees.gov.uk

Jonathon Drake  
Head of Cultural Services  
Red Doles Lane  
Huddersfield  
Email:jonathon.drake@kirklees.gov.uk

Richard Brooker  
Head of Leisure & Recreation Services  
The Stadium Business & Leisure Complex  
Huddersfield  
Email:richard.brooker@kirklees.gov.uk

Phil Webber  
Head of Environment Unit  
Estate Buildings  
Railway Street  
Huddersfield  
Email:phil.webber@kirklees.gov.uk

Caroline Taylor  
Head of Customer Relations Unit  
Communications Service  
24 Westgate  
Huddersfield  
Email:caroline.taylor@kirklees.gov.uk

David Griffiths  
Head of Corporate Support  
2<sup>nd</sup> Floor  
Oldgate House  
Huddersfield  
Email:david.griffiths@kirklees.gov.uk

Cliff Stewart  
Head of E Government  
Oldgate House  
Huddersfield  
Email:Cliff.stewart@kirklees.gov.uk

Ken Gillespie  
Director of Regeneration  
1st Floor  
Civic Centre III  
Huddersfield  
Email:ken.gillespie@kirklees.gov.uk

David Bagley  
Publicity & Media Relations Manager  
Crown Court Buildings  
Princess Street  
Huddersfield  
Email:david.bagley@kirklees.gov.uk

Mike Butler  
Head of Democratic Support Service  
1<sup>st</sup> Floor  
Civic Centre III  
Huddersfield  
Email:michael.butler@kirklees.gov.uk

John Emms  
Solicitor to the Council  
Civic Centre III  
Huddersfield  
Email:john.emms@kirklees.gov.uk

### **Neighbouring Local Authorities**

Ann Barker  
Specialist Pollution Team  
City of Bradford Metropolitan District Council  
Town Hall  
Kirkgate  
Shipley BD18 3EJ  
Tel: 01274 757003  
Fax: 01274 530095  
Email:ann.barker@bradford.gov.uk

Peter Broadbent  
Environmental Services  
Calderdale Metropolitan Borough Council  
Northgate House  
Northgate  
Halifax HX1 1UN  
Email:peter.broadbent@calderdale.gov.uk

John Scott  
Barnsley Metropolitan Borough Council  
Central Offices  
Kendray Street  
Barnsley S70 2TN  
Tel: 01226 772456  
Email:john.scott@barnsley.gov.uk

Lucy McLellan  
Planning and Environment  
Leeds City Council  
Selectapost 5  
Merrion House  
110 Merrion Centre  
Leeds LS2 8SH  
Tel: 0113 247 8158  
Fax: 0113 247 8178  
Email:lucy.mclellan@leeds.gov.uk

Sally Webster  
Environmental Protection  
Environment and Transportation  
Oldham Metropolitan Borough Council  
Westend House  
Westend Street  
Oldham OL9 6DW  
Tel: 0161 9114492  
Email:env.health@oldham.gov.uk

Stephen Beckwith  
Director of Environment  
Metropolitan Borough of Rochdale  
Planning & Regulation Services  
PO Box 32  
Telegraph House  
Baillie Street  
Rochdale OL16 1JH  
Tel: 01706 864147  
Fax: 01706 864185  
Email:environmental.health@rochdale.gov.uk

Mike Ashworth  
Planning and Environment  
Wakefield Metropolitan District Council  
Development Department  
Newton Bar  
Leeds Road  
Wakefield WF1 2TX  
Switchboard: 01924 306636  
Email:mashworth@wakefield.gov.uk

I J Nicholls  
High Peak Borough Council  
Town Hall  
Buxton  
Derbyshire SK17 6EL  
Tel: 01298 28404  
Fax: 01298 27639  
Email:env-health@highpeak.gov.uk

### **Industry**

It is recognised that the introduction of this Strategy may have a significant impact on local industry. In an attempt to widen the area of consultation over 200 major employers (those who employ more than 100) within the area were specifically invited to comment on the draft strategy.

Copies of the Strategy are available for inspection at Public Libraries within Kirklees and also at West Riding House, 9 Manchester Road, Huddersfield HD1 3HH. The document is also available on the Kirklees Website [www.kirklees.gov.uk](http://www.kirklees.gov.uk) .

## Appendix 5 Priority Group 1

Contaminative Use	Number of uses on sites within Kirklees
Manufacture of gas, coke, or bituminous material from coal.	<b>98</b>
Manufacture or refining of lead or steel or an alloy of lead or steel.	<b>266</b>
Manufacture of asbestos or asbestos products.	<b>6</b>
Manufacture, storage, refining or recovery of petroleum or its derivatives, other than extraction from petroleum bearing ground.	<b>64</b>
Manufacture, bulk storage, refining or recovery of other chemicals, excluding minerals.	<b>103</b>
Final deposit in or on land of household, commercial or industrial waste (within the meaning of section 75 of the Environmental Protection Act 1990) other than waste consisting of ash, slag, clinker, rock, wood, gypsum, railway ballast, peat, bricks, tiles, concrete, glass, other minerals or dredging spoil; or where the waste is used as a fertiliser or in order to condition the land in some beneficial manner.	<b>293</b>
Treatment at a fixed installation of household, commercial or industrial waste (within the meaning of section 75 of the Environmental Protection Act 1990) by chemical or thermal means.	<b>76</b>
Use as a scrap metal store, within the meaning of section 9(2) of the Scrap Metal Dealers Act 1964(a).	<b>239</b>
Holes in the ground now filled with unidentified material.	<b>199</b>
<b>Total Number of sites</b>	<b>1146</b>

It should be noted that the individual uses and the total number of sites do not tally. This is because some of the sites have been subjected to more than one contaminative use.

## Appendix 6 Priority Group 2

Contaminative Use	Number of uses on sites within Kirklees
Extraction/Handling/Storage of Carbonaceous materials	<b>298</b>
Extraction/Handling/Storage of ores	<b>2</b>
Cement, lime and gypsum manufacture, brickworks and associated processes.	<b>50</b>
Manufacture of glass and glass-based products.	<b>5</b>
Manufacture of ceramics and ceramic-based products.	<b>7</b>
Manufacture/repair of electrical and electronic components and equipment.	<b>3</b>
Manufacture of pet foods or animal feed stuffs	<b>4</b>
Processing of animal by-products	<b>9</b>
Making of paper/pulp/board or related products (plus inking/de-inking) including print works	<b>19</b>
Chemical treatment and Coating of timber and timber products, including timber yards.	<b>43</b>
Textile Industry (Mills unspecified)	<b>621</b>
Tanning, dressing, fellmongering or other leather treatment processes.	<b>38</b>
Fulling, bleaching, dyeing or finishing of fabric or fibres	<b>132</b>
Manufacture of carpets or other textile floor coverings.	<b>10</b>
Process of natural or synthetic rubber	<b>2</b>
Marshalling/dismantling/repairing/ or maintenance of railway rolling stock	<b>43</b>
Dismantling/repairing or maintenance of canal vessels.	<b>3</b>
Dismantling/repairing/storage or maintenance of road transport vehicles	<b>150</b>
Dry Cleaning operations	<b>4</b>
Laboratories for educational/research purposes.	<b>2</b>
"Works" unspecified	<b>587</b>
"Garage" unspecified	<b>231</b>
Use/keeping of radioactive material.	<b>9</b>
<b>Total sites in priority group 2</b>	<b>1340</b>

## Appendix 7 Priority Group 3

<b>Contaminative Use</b>	<b>Number of uses on sites within Kirklees</b>
Electricity sub station	<b>842</b>
Mineral workings/quarries	<b>741</b>
Miscellaneous and Unspecified Groups	<b>94</b>
<b>Total sites in priority group 3</b>	<b>1354</b>

# Appendix 8 Work Programme

	2003												2004												2005												2006												2007												2008											
	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec			
Deal with urgent sites	[Grey shaded]																																																																							
Purchase, acquire, input additional data onto GIS	[Black shaded]																																																																							
Prioritisation of sites in Priority Group 1	[Black shaded]												[Grey shaded]												[White]																																															
in Priority Group 2	[White]												[Grey shaded]												[Black shaded]												[White]																																			
in Priority Group 3	[White]																																																																							
Detailed Inspection of Sites	[Grey shaded]																								[Black shaded]																																															

<b>KEY:</b>		Action timetabled for this period		Action may occur during this period
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## **Appendix 9**

### **Potentially Contaminative Uses**

Used in the 1995 survey of Contaminated Sites within Kirklees

#### **Agriculture**

Burial of diseased livestock

#### **Extractive Industry**

Extraction/Handling/Storage of Carbonaceous materials

Extraction/Handling/Storage of ores

#### **Energy Industry**

Production of gas from oil, lignite, oil etc.

Reforming/Refining/Purifying/Odorising/Storing gas

Treatment of carbonaceous material. e.g. gas/charcoal production

Thermal power station

Electricity sub station

#### **Production of Metals**

Production/Refining/Recovery of metals

Heating/ melting/casting of metals

Cold forming processes

Finishing treatments

#### **Production of Non-Metals**

Mineral workings/quarries

Production/processing of mineral fibres from ore. e.g. asbestos

Cement, lime and gypsum manufacture, brickworks and associated processes.

#### **Glass Making and Ceramics**

Manufacture of glass and glass-based products.

Manufacture of ceramics and ceramic-based products.

#### **Production and Use of Chemicals**

Production/refining/recovery/storage of petroleum or petrochemicals.

Production/refining/bulk storage of organic or inorganic chemicals.

#### **Engineering and Manufacturing Processes**

Manufacture of metal goods. (engineering/heavy engineering)

Storage/manufacture/testing of explosives, propellants.

Manufacture/repair of electrical and electronic components and equipment.

#### **Food Processing Industry**

Manufacture of pet foods or animal feed stuffs

Processing of animal by-products

**Paper, Pulp and Printing Industry**

Making of paper/pulp/board or related products (plus inking/de-inking) including print works

**Timber and Timber Products Industry**

Chemical treatment and Coating of timber and timber products, including timber yards.

**Textile Industry**

Tanning, dressing, fellmongering or other leather treatment processes.

Fulling, bleaching, dyeing or finishing of fabric or fibres

Manufacture of carpets or other textile floor coverings.

**Rubber Industry**

Process of natural or synthetic rubber

**Infrastructure**

Marshalling/dismantling/repairing/ or maintenance of railway rolling stock

Dismantling/repairing or maintenance of marine vessels.

Dismantling/repairing/storage or maintenance of road transport vehicles

**Waste Disposal**

Treating of sewage or other effluent.

Storage/treatment or disposal of sludge

Treating/keeping/disposal of waste including scrap and incinerators

Landfill sites

**Miscellaneous and Unspecified Groups**

Dry Cleaning operations

Laboratories for educational/research purposes.

Holes in the ground now filled with unidentified material.

"Works" unspecified

"Garage" unspecified

Use/keeping of radioactive material.

## Appendix 10 Glossary of Terms

**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."

**Caused or knowingly permitted:** test for establishing responsibility for remediation, under section 78F(2).

**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.

**Owner:** defined in section 78A(9) as:

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

**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.

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

**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.

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

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

- (a) scientifically-based;
- (b) authoritative;
- (c) relevant to the assessment of risks arising from the presence of contaminants in soil; and

(d) appropriate to the determination of whether any land is contaminated land for the purposes of Part IIA, in that the use of the information is consistent with providing a level of protection of risk in line with the qualitative criteria set out in Tables A and B of Chapter A of DETR Circular 02/2000.

**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 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 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.

**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.

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

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

**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