AMBER VALLEY BOROUGH COUNCIL

Strategy for Inspection of Contaminated Land

Part IIA Environmental Protection Act 1990

March 2002

Strategy for Inspection of Contaminated Land

EXECUTIVE SUMMARY

Contaminated Land. A new statutory regime was introduced in England from 1 April 2000 as *Part IIA* of the *Environmental Protection Act 1990 (EPA 1990)* to stimulate action to clean up land and ensure the Government's policy for the 'sustainable development' of land contaminated by past industrial, mining and waste disposal activities. Statutory guidance issued in March 2000 (DETR, 2000) clarifies and extends existing regulatory powers available to local authorities and the Environment Agency as regulators, and requires all local authorities to produce a 'Strategy for Inspection of Contaminated Land'.

The Inspection Strategy for Amber Valley has been prepared to enable the implementation of the inspection and identification of contaminated land in the Borough. It has been prepared to comply with the statutory guidance published in April 2000 by the Department for Environment, Transport and the Regions (DETR) and the associated advice note. This guidance requires that the Strategy be "rational, ordered and efficient", "to seek to ensure that the most pressing and serious problems are identified first" and "to ensure that resources are concentrated on .. areas .. most likely to identify contaminated land".

The Strategy discusses the following key areas in relation to how Amber Valley Borough Council deals with land contamination issues:

- Policy;
- Regulatory context and relevant definitions;
- Interaction with other processes and regimes;
- Roles and responsibilities;
- The local area context – areas of potential contamination concern in Amber Valley;
- The overall aims and objectives of the Inspection Strategy;
- Procedures;
- Liaison and communications;
- Inspection procedures;
- Reviewing the Strategy;
- Information handling;
- Information sources and review.

The Strategy will be reviewed and updated regularly or as necessary to ensure that it remains as valid and accurate as possible.

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Strategy for Inspection of Contaminated Land

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SECTION 1: INTRODUCTION

1.1 Policy of Amber Valley Borough Council

Land and its natural resources have sustained human civilisations from the earliest times; clean and safe food, water and shelter are vital for survival and prosperity. Competition for these resources has intensified since the Industrial Revolution in 18th and 19th century Britain, when progress in innovative industrial processes was often at the expense of human health and environmental quality. Industrial development resulted in the indiscriminate and largely unregulated deposition of contaminants such as oils and tars, heavy metals, organic compounds and soluble salts, mining materials, and landfill, with few, if any, precautions taken to prevent the accumulation, venting, and leaching of noxious materials.

In response to growing public health concerns, the concept of statutory nuisance was established and developed over time in laws, rules and guidance documents. In most cases, particularly concerning land and air, the responsibility for implementation and enforcement has been placed with local authorities; water pollution has more recently been dealt with by Government bodies such as the Environment Agency. Historical measures to deal with existing and potential sources of contamination were brought together in a formal statutory framework - the *Environmental Protection Act 1990*.

The Borough Council's Local Plan (subject to consultation) (AVBC, 2001) describes its policy in terms of land contamination:

- *The Borough Council has previously identified areas of derelict land…Although much...has been successfully reclaimed, pockets of dereliction remain and there is a need to try and secure the remediation in these areas. The Borough Council, in conjunction with Groundwork Erewash Valley, has prepared a programme for physical regeneration of not only derelict land, but also other neglected or unsightly land or buildings in the public realm;*
- *Planning permission will be granted for the reclamation and reuse of derelict, unstable and contaminated land, providing that where it is suspected or known that land is contaminated, a detailed and independent assessment is undertaken to identify the nature and extent of contamination and any remedial or mitigating measures which need to be undertaken.*

The Borough Council will seek to implement the Government's requirement that, wherever practicable, remediation of land contamination is achieved by agreement, co-operation and encouragement rather than by formal action. However, where the remediation is not carried out or an agreement cannot be reached, the Borough Council is required to take enforcement action. In addition to discussions with those directly involved with such sites, the Borough Council is committed to promoting transparency in its actions and to involving all parties with an interest in land contamination, principally local residents, but also landowners, local environmental groups and other regulators.

1.2 Regulatory Context

This strategy has been prepared to enable the implementation of the inspection and identification of contaminated land in the Borough of Amber Valley. It has been prepared to comply with the statutory guidance published in April 2000 by the Department for Environment, Transport and the Regions (DETR) and the associated advice note. The statutory guidance requires that the strategy be "rational, ordered and efficient", "to seek to ensure that the most pressing and serious problems are identified first" and "to ensure that resources are concentrated on …. areas …. most likely to identify contaminated land".

The new statutory regime was introduced in England from 1 April 2000 as *Part IIA* of the *Environmental Protection Act 1990 (EPA 1990)* to stimulate action to clean up land and ensure the Government's policy for the 'sustainable development' of land contaminated by past industrial, mining and waste disposal activities. Guidance issued in March 2000 (DETR, 2000) clarifies and extends existing regulatory powers available to local authorities and the Environment Agency as regulators.

There is a clear and increasing need to develop previously used land and to conserve valuable resources. The 'suitable for use' approach to redevelopment is a key part of the Government's 'sustainable development' policy, encouraging a more responsible way of dealing with increasing land use pressures, involving:-

(a) Ensuring that land is suitable for its **current use**, i.e. identifying land which is causing unacceptable risks to human health and the environment;
(b) Ensuring that land is made suitable for any **new use**, as planning permission is given for that new use, i.e. assessing potential risks before permission is given;
(c) Limiting requirements for **remediation** to the work needed to prevent unacceptable risks to human health or the environment in relation to the current or future use of the land for which planning permission is being sought, i.e. recognising that risks can only be assessed in the context of specific land uses. (DETR, 2000)

The last National Land Use Survey in England in 1998 found an estimated 57,710 hectares of previously used land available for redevelopment, most of which was located in the North East, North West, Yorkshire and Humberside; in the East Midlands this amounted to around 5,610 hectares (DETR, 1999).

1.2.1 'Contaminated Land'

Contamination may exist in, on or under the land; in solid, liquid or gaseous form; may be localised in discrete areas within a site, or be dispersed throughout it; may be easily identifiable, or require sophisticated sampling and measurement techniques; may be mixed with, inside or buried beneath other materials; or may be escaping from or onto the site (Scottish Executive, 2000).

Section 78A(2) of *Part IIA* of the *EPA 1990* defines **contaminated land** 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 harm being caused; or
(b) pollution of controlled waters is being, or is likely to be caused.. (DETR, 2000)

Government Circular 02/2000 (DETR, 2000) advises that this definition:

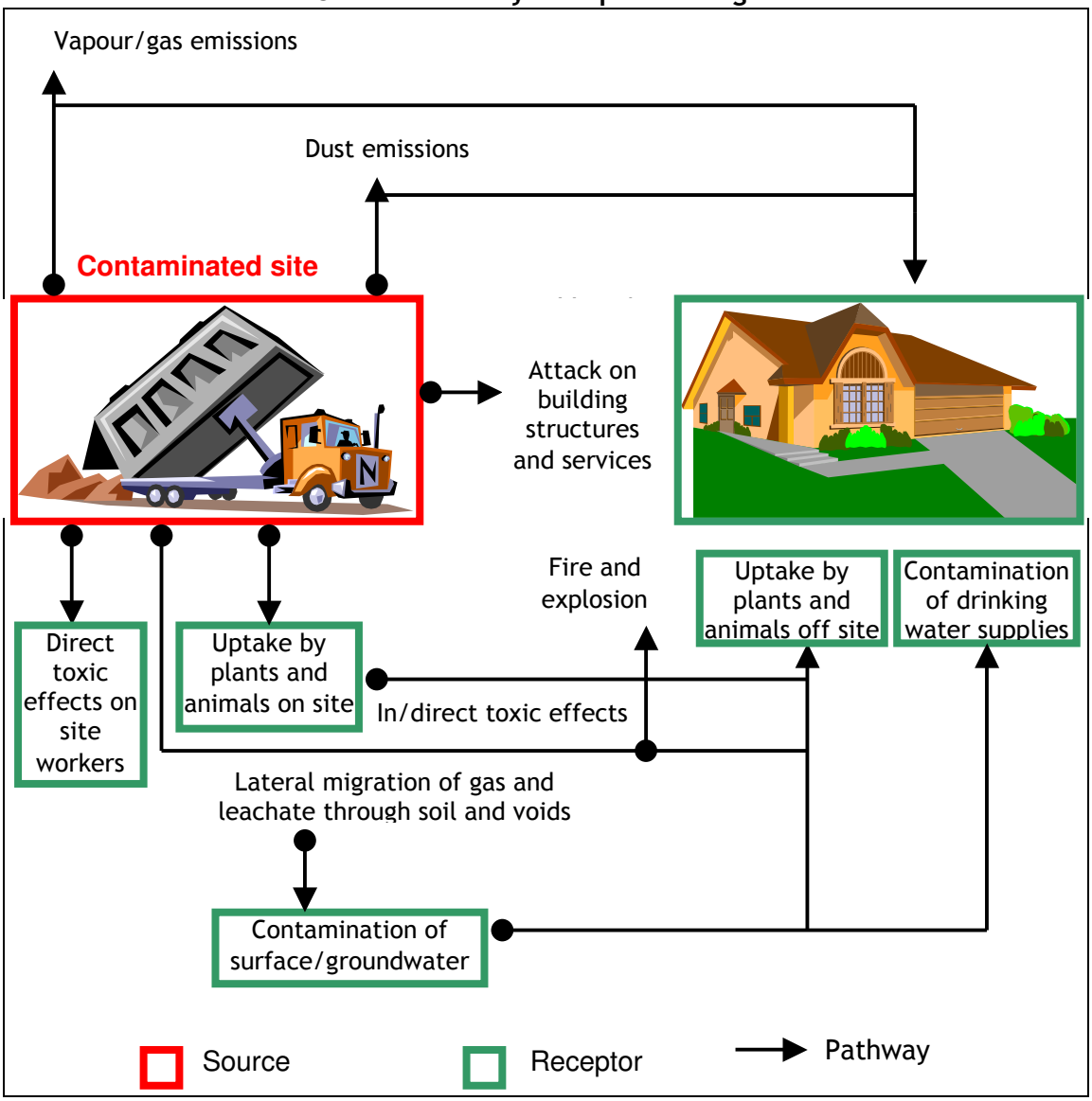
> ..enable[s] the identification and remediation of land on which contamination is causing unacceptable risks to human health or the wider environment. It does not include all land where contamination is present, even though such contamination may be relevant in the context of other regimes.

The concept of **significant harm** caused by **pollutant linkage(s)** is key to establishing whether or not a site can be considered **contaminated land** under *Part IIA*. Using the advice in statutory guidance, the local authority in whose area the site exists or is affected must determine that **significant harm** is being caused, or that there is a **significant possibility** of such harm being caused, via a **significant pollutant linkage**. The following elements must be identified if the land is to be determined as **contaminated land**:-

(a) a **contaminant**;
(b) a relevant **receptor**; and
(c) a **pathway** by means of which either:-
  i. that **contaminant** is causing **significant harm** to that **receptor**, or;
  ii. that there is a **significant possibility** of such harm being caused by that **contaminant** to that **receptor**.

The diagram below shows a conceptual model illustrating some of the potential pollutant pathways on and around a contaminated site.

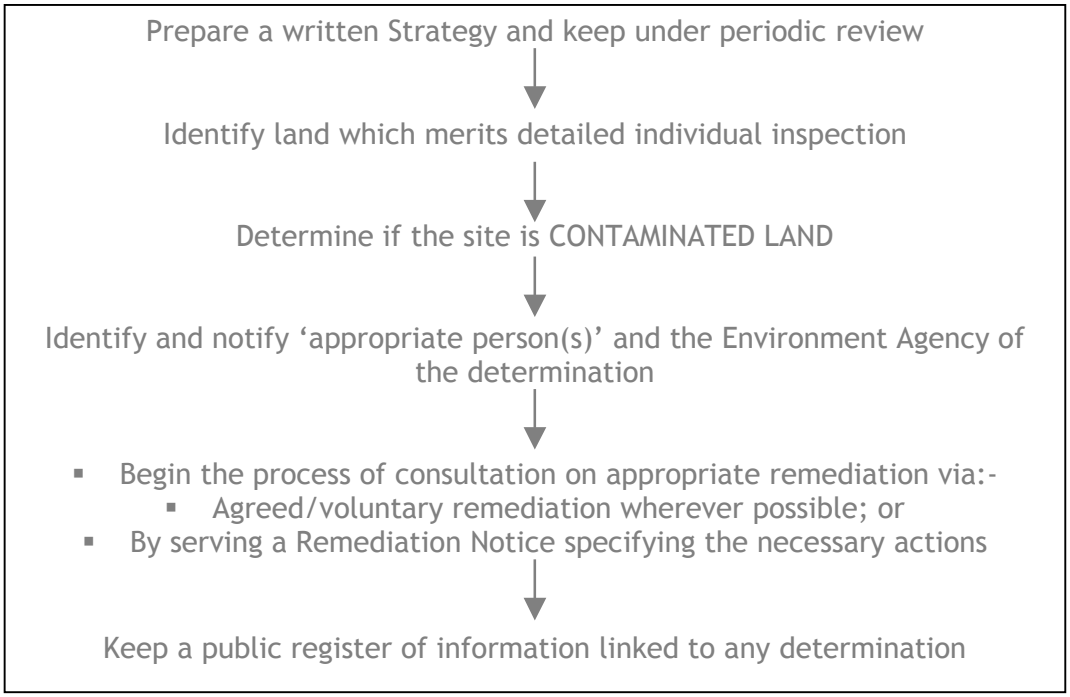
Source-Pathway-Receptor Linkages



The new contaminated land regime is intended to implement the key Government policy of sustainable development via environmental risk assessment. Whilst the legal definition is central to the way in which the issue of contaminated land is addressed, the designation of a site as 'contaminated land' rests on an effective assessment of the risk of harm the contamination poses to human health and/or the environment. If all elements of the definition are not found, the site may not be determined as contaminated land under the *Part IIA*, although the contamination may be dealt with under other processes or regimes.

Areas within the borough which may be contaminated will be identified and investigated on a priority basis. An assessment of the evidence available will be made and, based on the degree of risk associated with areas or sites, a timetable, with timescales, for their investigation and assessment will be drawn up. A further timetable will be established for the assessment and remediation of each site; the timescale associated with this process will depend on the number and complexity of sites identified (**see section 3.2**).

Simplified Process of Identifying Contaminated Land



1.2.2 Interaction with Other Processes and Regimes

Local authorities have a number of important roles in developing and managing contaminated land, including:-

- Identifying and ensuring suitable remediation;
- Identifying and remediating land in its ownership;
- As the Local Planning Authority, encouraging and facilitating the safe redevelopment and reuse of brownfield/contaminated sites;
- Preventing new contamination;
- Investigating complaints, educating and advising the public on contamination issues.

As well as being the principle regulator charged with identifying and ensuring the remediation of contaminated land under the *Part IIA* regime, local authorities have additional responsibilities to address contamination issues under the following regimes, specifically excluded from the requirements of *Part IIA*:-

- **Statutory nuisance** under *Part III EPA 1990*:
  - The *Environment Act 1995* amended the definition of statutory nuisance in section 79, which had previously been the main remediation mechanism, to exclude land 'in a contaminated state' from the scope of the statutory nuisance regime, other than where no 'harm' is caused;
- **Pollution Prevention and Control** under *Pollution Prevention and Control (England and Wales) Regulations 2000*:
  - Requires that Permits are held to operate certain prescribed processes to prevent new contamination and ensure site clean-up on closure;
- **Planning and development control** under *Town and Country Planning Act 1990*:
  - Contamination is a material planning consideration under this Act and as such, impacts on three main areas of the planning regime:-
    - In the preparation of development plans and policies;
    - In Building control; applying the *Building Regulations 1991* and the guidance *in Approved Documents A and C* to ensure that '..reasonable precautions [are taken] to avoid danger to health and safety caused by [dangerous and offensive] substances on or in the ground covered by the building..', and to ensure the structural integrity of buildings on made ground. Failure resulting in damage to buildings or health may leave the local authority liable for breach of statutory duty or negligence;
    - In the determination of planning applications and enquiries:-
      - considering, on a site-specific basis, the extent to which a proposed development could be affected by contamination and made 'suitable for use', based on <u>current and proposed</u> activities;
      - consulting other statutory bodies to establish their requirements;
      - requiring the applicant to then design a scheme to establish the nature and extent of contamination, and, where necessary, to submit a remediation strategy.
  - The fundamental difference between the definition of contaminated land under *Part IIA* and the planning regime rests with the end-use of the land. Under the planning regime, the Local Planning Authority must consider the intended <u>future use</u> of the site, as well as its <u>current use;</u> *Part IIA* considers the <u>current</u> use only;
  - The Borough Council has produced guidance notes to aid developers entitled *Developing Land in Amber Valley* available on request free-of-charge.

Other regulatory controls, which may be outside the remit of local authorities, but which may be involved in decisions relating to contaminated land, include:-

- **Waste Management Licensing** under *Part II EPA 1990*:
  - Where there is significant harm or pollution of controlled waters due to contamination from land subject to a site licence/condition;
  - Where the contamination is due to an illegal deposit of controlled waste;
  - Remediation activities which constitute 'waste disposal operations' or waste recovery operations';
- **Water Resources Act 1991**:
  - Where the Environment Agency has the power to prevent or remedy the pollution of controlled waters;
- **Radioactivity**:
  - Where harm or water pollution is the result of radioactivity possessed by any substance; more detailed proposals concerning the application of *Part IIA* are currently being considered by the Government;
- **Health and safety** management during site investigation, remediation and construction under the *Construction (Design and Management) (CDM) Regulations 1994* and guidance (HSE, 1991);
- **Food Safety** under *Part I* of *Food and Environment Protection Act 1985*:
  - To protect consumers from exposure to contaminated food;
- **Landfill Tax** under *Finance Act 1996*:
  - A tax on the disposal of wastes from the remediation and reclamation of land, other than where contaminated material is being removed to prevent harm or facilitate redevelopment;
- **Major Accident Hazards** under *Control of Major Accident Hazards (COSHH) Regulations 1999*:
  - Require site operators to establish emergency plans for restoration and clean-up following a major pollution incident. (DETR, 2000)

1.3 Roles, Responsibilities, Liaison and Consultation

Local authorities must work closely with landowners, occupiers, developers and their agencies, the Environment Agency, Department for Environment, Food and Rural Affairs (DEFRA) - formerly Ministry of Agriculture, Food and Fisheries (MAFF) -, English Nature, English Heritage, Food Standards Agency, East Midlands Development Agency (EMDA), Derbyshire County Council, and others. At the same time, the Borough Council must ensure that its decisions are transparent, stimulate and support sustainable economic development, and do not threaten human or environmental health.

Although local authorities have been given the primary regulatory role under *Part IIA* to identify and stimulate the remediation of historical contamination, the Environment Agency also has particular functions in dealing with contamination:-

- As statutory consultee within the planning regime, particularly where the pollution of controlled waters is an issue;
- In waste management and water quality regulation;
- Under the Pollution Prevention and Control regime;
- In the regulation of radioactive substances.

Specifically, in terms of the *Part IIA* regime, the Environment Agency is required to:-

- Act as enforcing authority for **Special Sites**;
  - Such sites may include those involving waste acid tar lagoons, oil refining, explosives, those subject to the Pollution Prevention and Control regime, nuclear sites;
- Act as enforcing authority for **Water-pollution cases**;
  - Where contaminated land affects controlled waters and their quality, for example where the wholesomeness of drinking water, surface-water classification criteria, and major aquifers are affected;
- Act as enforcing authority where contaminated land involves some Ministry of Defence land;
- Provide advice to local authorities on remediation;
- Provide information to local authorities on land contamination;
- Provide advice on identifying pollution of controlled waters;
- Report on the state of contaminated land in England and Wales.

These responsibilities require local authorities and the local Environment Agency office to work closely together in sharing information and expertise, particularly in:-

- Planning and development control;
- Waste management regulation;
- Water pollution regulation;
- The development and implementation of Local Environment Action Plans (LEAPs).

To this end, the Local Government Association and the Environment Agency agreed a *Land Contamination Protocol* (LGA, 2001) setting out the relationship between the two regulators defining the different and shared roles and responsibilities, and the mechanisms for information exchange, formal and informal consultation, co-operation, transparency and review.

The many different issues and agencies involved in dealing with land contamination require that local authorities work closely with all interested parties. It is the Borough Council's intention to develop clear, open and transparent policies, procedures and working practices with all stakeholders in all aspects of dealing with the identification, assessment and remediation of land contamination under all regimes, including mechanisms for the collation and feedback of monitoring results, and for the sharing of information to promote best practice locally and nationally. Full details of these procedures will be published by the **end of 2002**.

Copies of this strategy have been issued for consultation to the following groups and organisations, and their comments incorporated:-

- **Environment Agency;**
- **DEFRA;**
- **English Nature and English Heritage;**
- **Food Standards Agency;**
- **East Midlands Development Agency (EMDA);**
- **Derbyshire County Council;**
- **Internally within the different Council departments involved; and**
- **To the general public via public offices and libraries.**

1.4 Objectives of the Strategy

The new contaminated land regime requires all local authorities, including Amber Valley Borough Council to:-

(a) cause their area to be inspected to identify contaminated land;
(b) determine whether any particular site is contaminated land;
(c) act as enforcing authority for all contaminated land which is not designated as a 'special site';
(d) establish who should bear responsibility for remediation;
(e) decide, after consultation, what remediation is required, and to ensure that it takes place, through agreement, by serving a remediation notice, or by carrying out the works themselves;
(f) determine who should bear what proportion of the liability for the costs of the works;
(g) record prescribed information about their regulatory actions on a public register, available for inspection. (DETR, 2000)

In order to achieve these objectives, a strategic approach must be taken to identify sites within the borough which require inspection to determine whether or not they constitute 'contaminated land' under *Part IIA*, and ensures that the most serious problems are dealt with first. The methods and procedures which Amber Valley Borough Council proposes to follow are detailed within this **Strategy for Inspection** document.

1.4.1 Amber Valley Borough Council's Intentions Regarding the Regulation of Land Contamination

It is commonly accepted that the mere existence of harmful substances within a site does not necessarily imply that it is contaminated land under either regime. The 'suitable for use' approach directly relates the nature and degree of harm which could result, to the sensitivity of the end-use. However, to say that harm could be caused, rather than that it is likely, is too restrictive and could hinder the development of most sites. Contamination, as far as it is possible to do so, must therefore be accurately identified and assessed.

The complexity and pitfalls of redeveloping and/or remediating means that there is unlikely to be any single solution. It will generally fall to local authorities, and in certain circumstances the Environment Agency, to make a professional judgement as to the whether or not the proposals will make the site 'suitable for use'. In order to demonstrate that all aspects of site contamination have been adequately assessed, Amber Valley Borough Council expects that a strategic approach will be taken in the identification and investigation of all land contamination, whether under the *Part IIA* regime, the Planning and Development regime, or other similar situation.

Wherever possible, the Borough Council will seek to improve the quality of land within its area by encouraging **voluntary remediation action**. The Planning and Building Control regimes play an important part in the redevelopment and social and economic regeneration of previously used and degraded sites.

Whilst *Part IIA* addresses existing contamination, the issue of contamination on most new development sites in the area is the responsibility of the Local Planning Authority. Land contamination is a material consideration in terms of whether or not planning permission is granted, and although application prevents the use of *Part IIA*, a developer must be able to satisfy the Local Planning Authority that the site can be remediated such that it is suitable for its intended use.

Updated guidance on the relationship between planning and *Part IIA* in England is expected from the Government soon; however, the Borough Council intends to apply investigation and remediation requirements to a standard comparable to *Part IIA* to prevent sites being revisited as part of the Borough Council's Inspection Strategy.

It is therefore vital that all contamination issues are addressed fully at the planning stage to give the developer, local authority and public assurances about the safety of the site, future regulatory action, and associated liabilities.

Where it is not possible to remediate land via **voluntary remediation action**, or the Borough Council is not satisfied that appropriate remediation is being, or will be, carried out without a remediation notice being served, appropriate **enforcement action** will be taken. Part of this process will involve determining liability, i.e. the 'appropriate person(s)', 'Class A person(s)', 'Class B person(s)', 'exclusions' and 'apportionments', in accordance with statutory guidance. The Borough Council will publish detailed policies and procedures in this area by the **end of 2002**.

1.4.2 Enforcement Policy

This section sets out Amber Valley Borough Council's enforcement policy in relation to the identification, investigation and remediation of contaminated land. These general principles will be of particular interest to those responsible for contaminated land, whether as polluters, owners, developers, or anyone affected by the way the Borough Council enforces *Part IIA* of the *EPA 1990*.

The Borough Council has established an **Enforcement Concordat** – a voluntary commitment to the principles of good enforcement policies and procedures:-

- To set and publish performance standards annually;
- To be open and use plain language;
- To be helpful, use Customer Care and ensure effective co-ordination;
- To have a publicised, effective and timely complaints procedure;
- To ensure action is proportionate to the risk or harm;
- To be fair, equitable and consistent.

This is not concerned with the operational aspects of the enforcement of this legislation by officers of the Borough Council, but rather what those involved in contaminated land have the right to expect in terms of our conduct and how we take decisions.

Our aim:-

- We will control risks to the public's health and the environment, where possible through prevention, by offering advice and encouragement to those who want to comply with the law;
- We will, however, always act quickly and decisively to enforce the law against those who, in breaking the law, wilfully put themselves, the public or the environment at risk;
- In enforcing the law, we will make decisions and take action which is proportionate to the risk;
- We will follow procedures which ensure that our approach is fair and consistent.

When we find that a business or individual is not complying with the law:-

- We will contact the individual or, in the case of a business, the owner or the most senior manager available to explain and discuss the offence;
- We will provide advice on the legal position and what action is needed to resolve the situation within a mutually agreed timescale (if applicable);
- We will always make clear which advice is recommended good practice and which advice must be followed to comply with the law.

When we take enforcement action:-

- Any verbal advice and discussions on timescales for action will be confirmed in writing, and follow appropriate Government Guidance (where applicable);
- Where there is a risk to the public or the environment and the law has been broken, and informal discussions have failed to remove the risk, legal action will be taken;
- Situations which present an immediate and serious risk to the public or the environment will always be dealt with by legal enforcement;
- We will always explain what the practical effect of our actions will be and how an appeal against the action can be made.

Putting things right:-

- If you are unhappy with the way that we have dealt with you WE WANT TO KNOW. Please contact:

Susan Sonnex, Head of Environmental Health and Leisure
at:
Amber Valley Borough Council, Environmental Health & Leisure Division,
P O Box 17, Town Hall, RIPLEY, Derbyshire, DE5 3TU
Telephone: 01773 841316
Fax: 01773 841317
E-mail: enquiry@ambervalley.gov.uk

- We will acknowledge your complaint within 5 days, and you will receive a full written reply within 14 days;
- If you are not satisfied with our reply, the Borough Council has a formal complaint procedure. Official complaint forms are available at our Council offices (Telephone: 01773 570222), or Environmental Health staff will be pleased to send you a form on request.

1.4.3 Demonstrating Compliance with the Statutory Requirements

Performance indictors are to be developed by the Government, based on information provided by the Environment Agency, to assess progress in identifying and remediating contaminated land. These indicators are likely to include:-

(a) Measures of the extent of regulatory activity under *Part IIA*;
(b) Indicators of progress in identifying and remediating contaminated land by voluntary or regulatory action. (DETR, 2000)

The Government will set targets for this progress when inspection strategies have been established and implemented. Amber Valley Borough Council will monitor its own progress against these targets, and to local and Best Value Performance Indicators within its performance management process.

1.5 Overview of the Strategy Document

Sections 1 to 3 of this document set out the background to *Part IIA* of the *EPA 1990*, and how it will be used in Amber Valley borough to investigate, identify and, where necessary, remediate contaminated land.

Sections 4 and 5 explain how the inspections will be carried out, while sections 6 and 7 summarise how the information generated will be managed.

Information about sources of information and preliminary assessments of where contaminated land might be located are enclosed in the Appendices.

SECTION 2: THE LOCAL AREA CONTEXT

2.1 Background to Amber Valley Borough

The borough of Amber Valley forms one of the nine Local Authority districts in Derbyshire. Located on the eastern side of Derbyshire, between Derby to the south, and Chesterfield to the north, the area gets its name from the River Amber, which flows through it.

Key Statistics

- **Second largest district in the East Midlands;**
- **118,200 population;**
- **4 market towns – Alfreton, Belper, Heanor & Ripley;**
- **Just over 260 square kilometres;**
- **25 wards;**
- **2 depots, 4 leisure centres, 6 cemeteries, over 100 playgrounds and parks, 6300 Council houses;**
- **45 Councillors;**
- **1000 employees;**
- **80% of homes in Council Tax bands A-C;**
- **9 Charter Mark Awards.**

The borough's population distribution and contamination status is greatly affected by its geological and industrial heritage. Coal, limestone and sandstone provided the key natural resources, while the four rivers supplied valuable power sources. Water power on the river Derwent allowed the textile industry to grow and prosper; the demand for iron, steel and coal grew in proportion. The result of this industrial development is that the eastern part of Amber Valley has a distinctly urban character, whilst the western parishes are largely agricultural and much less densely populated. The exploitation of natural resources has not only brought direct wealth, but provides a legacy upon which a thriving tourism industry is based. Attractions include the American Adventure Theme Park, Crich Tramway Village, Midland Railway Centre, Kedleston Hall, Wingfield Manor, and numerous parks and gardens. There are 7 Sites of Special Scientific Interest (SSSIs) and many locally designated nature conservation sites, archaeological sites, and ancient monuments within the borough.

Coal, limestone and sandstone reserves still support mining, and limestone quarrying is still active in the north. The declining textile manufacturing industry was focussed along the central Derwent Valley Corridor, currently vying for World Heritage Site status.

Although based in the East Midlands, Amber Valley provides access to all parts of the country, including ports, airports and rail stations, without the major congestion problems of larger conurbations. Travel within the borough and local area is also well provided for. Major roads, including the A38 and A6 run through the borough in a north-south direction; the A38 providing a busy link between Derby and junction 28 of the M1. The A609 and A610 also provide links to Ilkeston and Nottingham to the east. In addition, the A52 between Derby and Ashbourne cuts through the southern-most tip of the borough. There are several railway stations in the area forming part of the busy east coast line, stations along the local line to Matlock, and at Alfreton, with through trains to London, Manchester and the north. The borough also contains a network of freight lines, as well as a legacy of disused and reused railway land. The River Derwent bisects the area from north to south, running parallel with the A6, Cromford Canal and the local rail line to Matlock.

Almost 500 businesses are located on 20 industrial estates, with a further 400 on individual sites across the borough, many of which adjoin housing estates. There are records of over 100 historic licensed waste disposal sites, as well as 85 permitted processes operating under *Part I EPA 1990*. Traditional coal mining and textile industries have gradually given way to a wide range of activities including engineering, timber and furniture manufacture, business services, and a thriving leisure and tourism industry.

These historic activities have left an extensive legacy of brownfield, and potentially contaminated, sites as well as areas of significant dereliction, deprivation and social exclusion particularly in the central and eastern areas of the borough. In developing any land, Amber Valley Borough Council must have regard to Government policy objectives, the requirements of the Derbyshire Structure Plan, the current Local Plan and other local considerations.

2.2 Hydrogeological and Geological Background

The geology of the Amber Valley district consists of the following geological units. In the following table, their overall classification as aquifers and therefore sensitivity to contamination are indicated against each:

Unit	Name	Principal Rock Types	Aquifer Type
Permian	Mercia Mudstone	Clay, Mudstone	Non aquifer
	Sherwood Sandstone	Sand, sandstone	Major aquifer
Carboniferous	Westphalian (Coal Measures)	Mudstone, coal, thin sandstones	Minor aquifer
	Namurian (Millstone grit)	Alternating mudstone, sandstone	Minor aquifer
	Dinantian Limestone	Limestone	Major aquifer

The Coal Measures dominate the geology of the borough. Almost all the land east of the rivers Derwent and Amber is underlain by these strata. These have been historically extensively worked by underground and more recently opencast mining. The former colliery sites are potentially contaminated by virtue of the fuels used and the natural acidic/metal rich spoils deposited on these sites. The availability of coal has also historically been a key issue in the siting of other heavy industry in the area. The various thin sandstone bands can act as minor groundwater bearing strata, but the natural acidity and metal content renders them of little value other than as cooling water for industrial uses.

The Millstone grit is the second most predominant stratum, occurring primarily west of the Rivers Derwent and Amber. The mudstone strata are not water bearing, but the intervening sandstone bands, particularly the Chatsworth Grit and Rough Rock can be significant local ground water sources.

The Carboniferous Limestone is restricted in its occurrence to a small area around Crich in the North West of the borough. This has been extensively quarried for limestone and some of the quarries have become landfills. The limestone is potentially a major aquifer with flow through the fissures in the rock. A particular feature of the limestone is extensive lead-zinc mineralisation in a number of veins, which has locally been mined.

Alternating mudstone and thin bands of limestone also occur in the south west of the borough, though because the limestone is thin, it is not recorded as a significant aquifer. It can however be of local resource.

The Sherwood Sandstone is a weak red sandstone which elsewhere is a major aquifer. It crops out in the south west of the borough around Markeaton and Kedleston, but it is poorly developed and is not a major ground water resource in this area.

The overlying Mercia Mudstone crops out in a similar area and being predominantly clay is not an aquifer.

The rivers in the Borough are dominated by the River Derwent Catchment. The Environment Agency identify this as being of relatively good quality protection of its quality will be a key issue. The Kedleston and Markeaton Brook tributaries in the south of the borough are both of good quality. Further upstream the Bottle Brook through Denby, Alfreton Brook and River Amber are all recorded as being of fair to poor quality. This primarily results from sewage works and industrial discharge consents, but a **mine drainage sough** of unspecified location is listed by the Environment Agency as of concern to the River Amber. A **disused landfill at Crich** is also listed as of concern to water quality.

The east of the borough falls into the River Erewash catchment. The only monitored tributary of this in the borough is the Bailey Brook, outfalling from **Loscoe Lake** which is recorded as being of poor quality.

2.3 Sensitive Land Uses

2.3.1 Agricultural Land

The Borough Council received the following comments from DEFRA:

The Provisional Agricultural Land Classification of England and Wales advises that no grade 1 land is mapped in the Amber Valley Borough, the better quality land in the southwest of the district is grade 2. For interest, the total areas of each grades in the Borough are: 1,910ha grade 2; 5,898ha grade 3; and 16,985ha grade 4. There is no grade 1 or grade 5 land.

On agricultural land which has been identified as 'contaminated land' we (DEFRA) do not believe that remediation is either practical or reasonable, because of the high costs involved. Preferred options are therefore the breaking of the pollution linkage by changing management practices to allow current use to continue, or a change of land use. This may be to less sensitive agricultural use such as energy crops or long term set-aside, or to environmental enhancement schemes.

The MAFF system of Agricultural Land Classification (ALC) includes provision for grading land according to long term limitations which can result from soil contamination. ALC surveys do not routinely collect soil or crop samples to assess contamination, and would only do so if an extensive problem was suspected. However, if contamination has been identified in an ALC survey within your Authority's area this should be taken as indicative of a possible problem to be investigated and not evidence that a pollution linkage exists.

2.3.2 Sites of Special Scientific Interest

Seven Sites of Special Scientific Interests (SSSIs) are identified within the borough, principally in the south west, again around Kedleston or in the north west around Ambergate and Holloway (**see Appendices B and C**).

2.3.3 Archaeology

There are also 12 scheduled ancient monuments within the borough, primarily relating to historic houses and parks, though also including a section of a Roman Road and an early iron furnace.

Locations of the principal SSSIs and scheduled ancient monuments are indicated on the plans appended to this document (**see Appendices B and C**). There are also numerous other recorded areas of biological, archaeological, geological and ecological significance, within the borough, all of which are recorded by the Council's Planning Records Section.

The Derbyshire Wildlife Trust has also identified a large number of additional local nature reserves and sites of environmental interest, which are recorded in the same way.

The Borough Council received the following comments from English Heritage:

- ***Definition of harm to Scheduled Ancient Monuments***

Within the categories of significant harm, the DETR Circular identifies Scheduled Ancient Monuments as one of the receptors that could be subject to harm. In the case of Scheduled Ancient Monuments, substantial damage (i.e. harm) would be regarded as 'unauthorised works' as defined by the Ancient Monuments and Archaeological Areas Act 1979. In order to undertake works affecting a Scheduled Ancient Monument, Scheduled Monument Consent is required. Damage involves anything that represents an addition, removal or alteration of the monument and is a criminal offence, which could lead to prosecution;

- ***Other potentially sensitive receptors***

Although not included in the DETR guidance, it is important to remember that listed buildings, world heritage sites, historic parks and gardens, historic battlefields and conservation areas will, on occasions, also be sensitive receptors. All these are designations, some of them statutory, that local authorities are required to take into account when considering planning applications and related matters. For example, a significant number of industrial buildings are listed and some conservation areas may include, or may even have been designated principally because of industrial sites;

- ***Key Property Types***

As well as scheduled ancient monuments etc., there may also be sites with industrial archaeological interest that may not be designated, but might need to be subject to some form of assessment before remedial work is undertaken (see below);

- ***Current and Past Industrial History***

English Heritage would like to stress that it does not want the historical legacy of sites and structures to be regarded as a form of contamination, although it realises that the conservation or recording of remains may require special measures;

- ***The Council's Strategy - Overall Aims***

One of the aims of the document should be to protect historic sites and the historic environment. At the very least it should protect 'designated historic sites', but English Heritage stresses that there will be other sites, not designated at the present time, that should also be afforded protection. Early identification of such constraints will minimise the danger of conflict later in the process;

- ***Consultation of Sites and Monuments Records***

In the preparation and implementation of your inspection strategy, we recommend that you consult the Sites and Monuments Records (SMR) covering your area. The SMR is the record of all known archaeological sites, including Scheduled Ancient Monuments. The SMR should be able to identify any Scheduled Ancient Monuments etc. that are associated with land that may be in a contaminated state and which could potentially be Contaminated Land according to Part IIA of the EPA 1990, as well as potential receptors;

- ***Methodology and procedures for detailed inspection***

The following advice is applicable to detailed inspections, especially where 'intrusive investigations' might be required, and when the remediation strategies are developed:-

- ***Advice on Scheduled Ancient Monuments***

  You should be aware that, across the country, the sites of some former industrial activities are Scheduled Ancient Monuments, and at these locations any contaminants present may constitute a significant element of the archaeological interest for which the monument was scheduled, e.g. asbestos in steam driven installations. This aspect would need to be considered when drawing up a remedial strategy for the site, in consultation with English Heritage. The Ancient Monuments Inspector for your area, Jon Humble, will be able to advise on the risks of significant harm to specific Scheduled Ancient Monuments;

- ***Other archaeological sites***

  Scheduled Ancient Monuments are thought to constitute less than 5% of the total archaeological resource. We would expect that when significant contamination is identified on or in an unscheduled archaeological site, and remediation is necessary, full discussion with the County Archaeologist would take place at an early stage to agree an appropriate mitigation strategy. This could include in situ preservation or excavation and recording. The special circumstances might require the development of a particular approach to overcome issues such as the archaeological material itself being treated as contaminated and not suitable for removal for archiving/further research. Clearly this would depend upon the nature of the contamination and the archaeologists would need to work with you to develop the appropriate mitigation strategy.

It is anticipated that decontamination is likely to take place in response to a proposed planning application for the development of brownfield land. If this is the case, then the procedures for dealing with areas of potential archaeological interest are clearly set out in Planning Policy Guidance 16 (PPG 16) Archaeology and Planning. The first stage would be to contact the Sites and Monuments Record to establish this potential. However, we are particularly concerned about the impacts of remediation measures that a) will take place outside the normal development control procedures and will not therefore, be subject to the automatic appraisal of the historic implications, and b), with respect to special sites, which will be under the aegis of the Environment Agency, which will not necessarily be aware of the appropriateness of following a similar procedure to that set out in PPG 16.

In conclusion, we would encourage your authority to consider contaminated sites in their historical context. They can tell us about past industrial activities and may include buildings and plant, as well as other archaeological evidence, which it might be appropriate to conserve or record. The understanding of the history of a site may inform planners and developers as to how new development can best be integrated into the existing urban fabric.

It would be helpful therefore, if these issues could be highlighted in the strategy or taken into account when developing the procedures for the remediation of contaminated sites.

2.3.4 Nature Conservation

The Borough Council received the following comments from English Nature:

In general, English Nature welcomes the cleaning up of contamination as a positive contribution to sustainable development, which should benefit some habitats and species of importance for nature conservation. However, we are concerned that some remediation techniques may potentially harm some species and habitats. These include species and habitats outside the 'eco-receptor' list, which are still important for nature conservation, and which Local Authorities have a responsibility to consider.

In consequence, Amber Valley Borough Council will take all appropriate measures to conserve wildlife and geology in the implementation of *Part IIA* in line with its statutory responsibilities for nature conservation and the furthering of Agenda 21, and adopting the principle of 'no net loss of biodiversity'.

In light of other comments from English Nature, the Borough Council undertakes to adhere to the following, as appropriate:-

- For the purposes of assessing the reasonableness of any remediation, and where the significant harm considered is 'an ecological system effect, the Council will take into account any advice received from English Nature;
- The Council will consult English Nature in the future reviews of this Strategy and its approach to contaminated land inspection;
- That best practicable techniques for remediation are implemented in accordance with best practice, including any precautions necessary to prevent damage to the environment and any other appropriate quality assurance;
- The Borough Council will also take adverse environmental impacts into account when assessing the practicability of any remediation. The possibility of adverse environmental impacts may affect the determination of which remediation package represents the best practicable techniques for remediation, and consideration will be given to adopting an alternative approach to remediation, even though such an alternative may not fully achieve the objectives for remediation. Alternatively, the risk may be sufficiently reduced through special conditions attached to the description of what is to be done by way of remediation. The best practicable technique for remediation need not fully remedy the effect, but mitigation may be obtained instead;
- All actions under *Part IIA* will be carried out with due regard to the following:-
    - The *Conservation (Natural Habitats &c) Regulations 1994* relating to the conservation of Natura 2000 sites and species. In particular, inspection and/or remediation within a Natura 2000 site or environs may be a 'plan or project', and may therefore require an Appropriate Assessment;

- The *Countryside and Rights of Way Act 2000* regarding the furthering of the conservation of Sites of Special Scientific Interest (SSSIs);
- *Wildlife and Countryside Act 1981* as incorporated by the *Countryside and Rights of Way Act 2000*;
- Planning Policy Guidance (PPG) 9 on Nature Conservation;
- The spirit of the *Local Government Act 2000* and the Rural White Paper, each of which encourage Local Authorities to have regard to the Biodiversity Action Plan Process;
- Agenda 21 which includes the conservation of Biodiversity.

2.4 Borough Council Land Ownership

The Borough Council is a significant landowner within the Amber Valley area; including housing, leisure facilities, industrial land and buildings, agricultural land, depots, parks and car parks. Approximately 6000 deed packets (areas of land or groups of buildings) are owned or leased by the Borough Council, the majority of which are located in the central and eastern areas of the borough. Information is held on these deed packets, though of variable quality, which can be used in identifying and assessing land contamination. This would also include areas of land and premises which have been disposed of by the Council in the past. In addition, the Borough Council itself leases car parks, playing fields and industrial land from landowners.

Derbyshire County Council is a major landowner in the borough, including highways, schools, industrial estates, and libraries; the Borough Council expects to work closely with the County Council in dealing with any land contamination at these premises, and on developments where the County Council is the Planning Authority. The Property Services Division is not currently aware of any particular sites or areas of concern.

The Borough Council's roles as enforcing authority for ensuring the remediation of contaminated land, Local Planning Authority and landowner mean that it must be particularly careful to be open, fair and consistent in all of these areas to divorce any of its interests in a site from its inspection and planning responsibilities. **The Borough Council will treat the investigation and remediation of their own land in exactly the same way as it treats other land.** To ensure this, clear, transparent policies and procedures detailing the Borough Council's approach in such circumstances will be published.

Whilst a final decision on the way this will be achieved has not yet been finalised, it is likely that the Borough Council will seek to appoint a third party to inspect land where it may be the appropriate person. The policies and procedures to be produced will also address specific arrangements for considering land in the Borough for which other local authorities may be responsible; for example, land owned by county, town or parish councils, and will include liaison and co-ordination arrangements between the different authorities.

Full details of these policies and procedures will be published by the **end of 2002**.

2.5 Background to Contaminated Land Control in the Borough

The Borough Council has not previously developed a comprehensive register of contaminated land within the borough; however, a significant amount of relevant information is held by various departments. The purpose of this document is to begin the process of drawing this information together to allow the prioritisation of sites requiring investigation to start in earnest.

2.6 Known Areas of Potential Concern

Among the Council officers and the Environment Agency, the following sites are known to be potentially contaminated and will be high priorities in terms of the inspection strategy:-

- **Cinderhill, Kilburn** ~ waste acid tar lagoons;
- **Firestone Hill, Hazelwood** ~ waste acid tar lagoons;
- **Roes Lane Waste Disposal Site, Crich** ~ disused landfill site, designated as a priority site due to the proximity of Hilt's Quarry and associated local concerns regarding the continuing disposal of radioactive waste; whilst Hilt's Quarry holds a current Waste Disposal Licence, no action can be taken under *Part IIA*.

The Environment Agency has also identified the following sites as potentially of concern:-

- A **mine drainage sough discharging into the River Amber in the north of the borough**; and
- The **water quality of the brook outfalling from Loscoe Lake**.

SECTION 3: OVERALL AIMS & OBJECTIVES OF THE INSPECTION STRATEGY

3.1 Aims

In accordance with the statutory guidance from DEFRA, the Amber Valley Borough Council strategy for inspection of contaminated land under *Part IIA* of the *EPA 1990* aims to be rational, ordered and efficient, as well as proportional to the seriousness of any actual or potential risks. It also seeks to ensure that the most serious potential risks are addressed as a priority.

The aim of the strategy is to control the risk to the health of the public and to the environment, where possible through the offering of advice and encouragement to landowners, their tenants and industrial process operators.

In individual cases the aim is to act quickly and decisively to ensure protection of the environment while decisions made will be fair to the owners, tenants and operators and in proportion to the risk involved.

The borough covers a large area with a significant number of potential sources of environmental risk. A **10-year plan** is therefore intended to identify all the potential sites where a source, a pathway and a receptor for environmental risk may be present, as identified in the following section.

The officers involved in carrying out the inspections will be part of the Environmental Health Division. They will be the same as those responsible for the following issues in order to ensure seamless application of environmental protection in the borough:-

- ensuring the safe development and environmental protection of land under the *Town and Country Planning Act 1990*;
- licensing sites under the *Environmental Protection Act 1990 and Pollution Prevention and Control Regulations 2000*; and
- implementation of the 'Review and Assessment of Air Quality' published by the Council under the *Environment Act 1995*.

3.2 Objectives

The objectives of the inspections are to identify sites where either actual environmental harm is occurring or where there is a significant risk of environmental harm. (Significant risk is identified within the Act as being more likely than not.) For a significant risk to occur there must be a source of risk, a receptor for that risk to impact upon and a pathway between the two – the source - pathways - receptor linkage.

The objective is to identify all such potentially significant, or actual, pollution linkages. This will involve identification of the nature of the source of risk and its origin, the possible risk to the identified receptors, the pathway between the source and the receptor, the person responsible for the source of environmental risk or harm. This will be carried out by means of a combination of review of existing records and published sources, meetings with interested parties, (including landowners, their tenants and industry or process operators), site visits, limited sampling, and if necessary detailed site investigation.

Over the next **5 years (by December 2006)** it is intended that a desk top review of published sources and existing records will be carried out to identify which of the potential significant linkages are viable; followed by contacting the relevant responsible person and agreeing site walkovers and limited sampling in order to either:-

- remove a site from the list of significant sources; or
- provide more data about the significance.

Those sites still considered to have a significant potential would be subject to a programme of site investigation to be completed by **December 2011**.

The objective is always to ensure that information is provided and shared between the Council as the enforcing authority and the landowner, tenant and/or operating manager as the responsible person in agreement and that the substantial proportion of investigative and intrusive works, including sampling and site investigation is carried out voluntarily and in agreement by the responsible person. If necessary, the Council will however, enforce the law by serving remediation notices on responsible persons when the potential seriousness of the significant potential linkage warrants.

A further objective of the Council is to ensure that the inspections are carried out in conjunction, and in agreement with the Environment Agency, where Special Sites are concerned the Council will liaise openly with the Environment Agency.

A preliminary review has identified that the majority of the sources of environmental risk relate to the former coal field areas in the east of the borough with a relatively smaller number on the banks of the Rivers Amber and Derwent and also associated with limestone quarrying in the north west of the borough. Much of the west of the borough is rural in character and has a relatively low potential incidence of sources of environmental harm. The most sensitive receptors to environmental harm in the short term are the groundwater in isolated areas, particularly close to the River Derwent, the water courses through the borough, notably the Derwent and its tributaries and the local population. The highest concentration of population is associated with the areas of the former coal field, in the east of the borough.

An objective of the Borough Council, therefore, is to ensure that the receptors most sensitive in the short term are addressed first. This means that initial screening of sites for significant pollution linkages will be focussed on the identified groundwater source protection zones, a corridor within 1km of the principal water courses and then where source sites are found to be within 500m of either residential housing, school sites or playing fields. Other sites would be evaluated following completion of this priority list. It is intended that where receptors are groundwater or watercourses, then this inspection would be carried out in conjunction with the Environment Agency. It is anticipated that where sites where actual harm, or a high significant risk of environmental harm is discovered, then these sites would be prioritised before all others.

SECTION 4: PROCEDURES

4.1 Responsibilities

Section 1.2.2 describes some of the Borough Council's responsibilities in addressing contamination issues under other regimes; however, a number of departments within the Council will be closely involved in the new Contaminated Land Regime, and must consider the implications of land contamination in the following areas:-

Environmental Health & Leisure Division

- In inspecting the area to identify contaminated land;
- To determine if any particular site is contaminated land;
- In acting as the enforcing authority for all sites not designated as Special Sites, to prevent harm to human health and the environment, where necessary by requiring the remediation of the site;
- In providing advice to the Development Policy/Services Divisions in carrying out their responsibilities as Local Planning Authority to ensure the safe development of potentially contaminated sites.

Development Policy/Services

- During the development of Structure and Local Plans;
- When considering individual applications for planning permission to satisfy itself that:-
  - The potential for contamination is properly assessed;
  - The development incorporates any necessary remediation;
  - Planning permission incorporates site investigation and remediation conditions appropriate to the current use and circumstances of the land and its proposed new use.

Building Control

- When considering applications for approval under the *Building Regulations 1991* to ensure that measures are installed to protect the fabric of new buildings and future occupants from the effects of contamination.

Property Services

- As a major landowner, contamination of its land and properties must be considered by the Council whenever a site is purchased, developed, or sold;
- In carrying out its statutory and non-statutory responsibilities over many years, the Borough Council may have itself caused land to become contaminated. In certain circumstances, it is possible that the Council could be responsible for the remediation of contaminated land, whether or not the land is still in its ownership;
- A clear, transparent and publicised procedure will be developed to separate the Council's enforcement role and its responsibilities for remediating contaminated sites.

Legal Services

- In advising and administering the regime at the request of officers in the Environmental Health Division, in particular in:-
  - Determining and apportioning liabilities and costs;
  - Dealing with appeals against Remediation Notices;
  - Prosecuting for non-compliance with Notices;
  - Negotiating and determining agreements, exclusions and hardship arrangements.

Key organisations and personnel involved in land contamination issues both within and outside Amber Valley Borough Council are detailed in **Appendix A**.

The relevant legislation makes it quite clear that responsibility for pollution rests with the original polluter. Procedures in the accompanying statutory guidance set out how the "Appropriate Person" is determined. This can be either:-

(a) The original polluter, or if they can no longer be traced after reasonable enquiry;

(b) The current owner.

4.2 Information Gathering

The DETR technical guidance states 'Information gathering will be an interactive process.' Once sufficient information has been gathered to identify broad areas/categories of land for further work, it will be necessary to collect more detailed information on individual sub-areas or sites.

Many disparate sources of information exist, some in database, some in map or document form, others are anecdotal. Some give information on contamination sources, others on receptors. Each source of information will have to be evaluated for the type of information it yields, its usefulness, format and the ease of inputting it into the data management system. A schedule of information sources is included in **Appendix B**.

• Current/historic industrial land use • Landfill sites	X	• Areas of population density • SSSIs/Nature reserves • Surface and groundwater protection zones • Crop use and ancient monuments

The Borough Council received the following comments from English Nature:

Data relating to eco-receptors and the implications for nature conservation of investigation and remediation will need to be up-to-date and efficiently managed. This will require effective liaison and data sharing procedures, and specific arrangements should be made with English Nature. Opportunities for the gathering and sharing of data and ideas at the site and district and national level, both pre- and post remediation, to help inform site management and develop techniques for 'best practice', should be maximised. In particular, appropriate use of Local Record Centres to assist with data gathering should be encouraged, beyond the statutory definition of eco-receptors.

4.3 New Information

It is anticipated that from time to time new information will become available relating to significant pollution linkages pertaining to any site. This may be in the form of unsolicited information volunteered by members of the public, either by telephone or in writing or information or in response to broadcast request for information. It may be a complaint made by a member of the public or it may be information requested specifically by the Council in carrying out its responsibilities under the *EPA 1990*.

All such information will be stored securely, either on paper or in digital form and cross referenced to a data management system so that in evaluating any site, that piece of information can be identified.

If the information is provided in response to a request of a responsible person, then it will be evaluated **within 28 working days** and the risk attached to a significant pollution linkage will be revised accordingly.

If the information provides relevant information pertaining to a site already assessed, or which indicates that actual harm or high significant potential for actual harm is present, then the information will be assessed **within 28 working days** and a decision made on the priority attached to that significant pollution linkage. Otherwise information will be stored for assessment in due course in accordance with the programme of priorities on the timetable.

All information received will be acknowledged and stored according to the confidentiality stated by the provider. Information provided confidentially by any party will be treated as confidential, not to be disclosed other than to officers of the Borough Council, officers of the Environment Agency, officers of another statutory regulatory body and officers of the body providing that information. Such documents will be clearly identified on the front cover in the case of paper copies and in the data retrieval system in the case of electronic copies as confidential and not to be disclosed.

The Borough Council received the following comments from English Nature:

It should also be noted that this..[new information]..may potentially relate to receptors, as well as linkages. If English Nature is likely to notify any additional SSSIs, we will, of course ensure that the Council is fully informed and can incorporate this information into the Strategy and its approach to contaminated land in due course.

4.4 Assessing and Evaluating Data

All data will be assessed to evaluate whether it provides information about a potential source of contamination, a receptor for it to act upon or pathways between the two. It is anticipated that several different types of information will be required to establish the true nature of a significant pollutant linkage.

In the early published information and desk top review stages, assessment will be primarily qualitative to establish whether a source–pathway or receptor exists, or there is a significant potential that one exists.

Information will also be evaluated to establish where actual harm is occurring or where significant risk of harm is present, or who the responsible person is. In the case of analytical data, information will be assessed to establish the validity of the data set, both statistically and in the means it was collected, in order that a true assessment can be made of the significance of either the source, the pathway or a receptor. In the case that actual harm or significant risk of harm occurring is suspected, then quantitative methods of analysing data are intended to be used.

Typical sources of information are identified in **Appendix B**, with an assessment of their usefulness and whether they give information about sources, pathways or receptors.

Data will also be assessed to establish whether there are any significant gaps in the information available, which may indicate uncertainty about whether potential environmental risks are present. This will be particularly important in the case of site investigation information and information about previous remedial works.

BS10175:2001 Code of Practice on Investigation of Potentially Contaminated Sites and DEFRA reports *CLR3-Documentary Research on Industrial Sites and CLR6-Prioritisation of Contaminated sites for Action* give further advice about sources of background information and also methods of prioritising sites.

4.5 Liaison and Communications

4.5.1 Statutory Bodies

Contacts have been made with the following bodies to obtain and share information about potential receptors, sources and pathways:-

- DEFRA;
- Environment Agency;
- English Nature;
- English Heritage;
- East Midlands Development Agency;
- Food Standards Agency;
- Derbyshire Wildlife Trust;
- Derbyshire County Council;
- Association of Derbyshire Local Authorities.

Contact details for these are enclosed in **Appendix A**.

4.5.2 Owners, Occupiers and Polluters

Liaison with these would normally be confidential between that person, the council and the relevant statutory bodies

4.5.3 The Public

Several procedures already exist within the Borough Council for liaison with the public, both to disseminate information about policies and issues and to manage incoming information; these include 'Helping You' leaflets and 'Customer Contracts', made available through Borough Council offices, libraries, and town centre bureaux. In special cases, printed and radio publicity and exhibitions can be arranged to raise awareness of specific issues.

4.5.4 Format of Liaison

Liaison would normally be by either written correspondence, telephone, e-mail or in meetings. A written record will be made of telephone conversations. Details of the outcome of such correspondence will be stored for future reference.

All incoming correspondence will be acknowledged within **5 working days** and the provider of that information informed of its confidentiality status and its status in the programme for assessing sites.

SECTION 5: INSPECTION PROCEDURES

5.1 Introduction

The following **sections 5.1 to 5.9** only apply to those sites identified as either having, or where there is a significant likelihood that there could be significant harm or pollution (as opposed to 'reasonably possible'). It may prove to be the case that sufficient information exists from previous research on which the Council can make a determination on whether the land is considered contaminated, in which case these procedures would not need to be applied.

The following procedures will be carried out by the Borough Council in accordance with existing Customer Contracts, requiring that all cases are addressed fairly, with courtesy and in a timely manner.

Correspondence would normally be with the individual, (or in the case of a business, the owner or most senior manager at the premises,) or their nominee. Actions to assess and/or resolve the contamination would be to a mutually agreed timetable. The Council will always make clear to appropriate persons which advice is good practice and which is mandatory in order to comply with the law. We will always explain what the practical effects of our actions will be and how an appeal can be made against them.

The legislation encourages that the process of inspection of potentially contaminated land should be conducted by mutual agreement between the regulator (the Council and/or the Environment Agency) and the appropriate person responsible for the contamination. Only in the case of non-co-operation would the Council exercise their power under section 108 of the *Environment Act 1995* to enter premises to carry out investigations and require information. The Council are required to give at least **7 days notice** of their intention to enter any land for this purpose.

5.2 Site Specific Liaison with Other Consultees

If evidence is found of a site having caused, or there being a significant risk of causing, pollution then the site-specific concerns would be addressed and agreed with the relevant affected statutory consultees, including:-

- DEFRA;
- Environment Agency;
- English Nature;
- English Heritage;
- Derbyshire Wildlife Trust;
- Derbyshire County Council.

The consultation would aim to establish whether a genuine significant risk is present and if so an agreed course of action. In the case of potential Special Sites the Borough Council and Environment Agency will work closely together to establish the contamination status of the site, and appropriate designation, in accordance with agreed protocol.

The Borough Council received the following comments from English Nature:

English Nature is keen that the investigation or remediation of any potentially contaminated land should not result in harm to ecosystems and/or other nature conservation interests. This interest may include geological sites, and sites and species not included in the 'eco-receptor' list, but is nevertheless of substantive value, and which may have been recognised by a local designation or inclusion in a local initiative.

In order to achieve this, it is important that the detailed inspection of any site includes a thorough survey and evaluation of the Nature Conservation interest at the earliest stages of investigation, and as appropriate during and after any remediation works, irrespective of the type(s) of pollutant linkage considered, and including interest of local significance out with the definition of 'eco-receptors'. This would enable the wildlife value of sites to be included in plans right from the outset of the process, which is often the cheapest, most effective and most publicly presentable option in order to effect nature conservation.

Analogous mechanisms for the evaluation of the nature conservation interest of land exist within the development planning system.[and]..many remediation schemes may be carried out as part of a development package…so factors such as locally designated nature conservation sites will need to be taken fully into account in accordance with PPG9 in any case. Other potential sources of information include Local Record Centres and Wildlife Trusts. The Authority may wish to inform and consult these and similar organisations over proposals for any particular site, and/or over their approach to Part IIA.

5.3 Liaison with Polluters, Owners and Occupiers

5.3.1 Establishing the Appropriate Person

In the case of historic contamination, the original polluter may no longer be trading from the premises or elsewhere. If the premises are still occupied or in existence, liaison will be with the owner or most senior manager of the premises to establish as many as possible of the following potentially relevant parties:-

- The present owner;
- Previous owner;
- Present/previous tenants.

If this is unsuccessful or the premises have been demolished or are unoccupied, then the following may be potential alternative sources of such details:-

- HM Land Registry - if the land has been registered this should at least indicate the most recent owner;
- Companies House – if historic records indicate the name of the previous occupiers, it may be feasible to trace them.

Having established all the relevant parties, then contact would be made by letter, informing that the site may be considered contaminated and inviting them to attend a joint meeting to agree the next steps of evaluating the risk.

5.3.2 Obtaining Information from Appropriate Persons

Some information may already be registered with the Borough Council, such as site investigation reports and reclamation reports relating to planning and development consents or ground reports prepared for Integrated Pollution Prevention and Control (IPPC) permits. This information would be the primary source of data by which to evaluate the significance of the risk.

If no such information is available or if more is required then the potentially appropriate persons would be encouraged to provide such evidence as they already possess. It is intended that this process would be provided voluntarily and by mutual agreement for the benefit of the environment. Only as described in **section 5.1** above would the council take direct action.

5.4 Procedure for Visual Inspection

The first stage of carrying out an assessment of whether there is a significant risk of contamination is to carry out a visual inspection or walk-over survey. This would establish what evidence is apparent from the site working practices, condition of the site surface, apparent condition of drainage, visible contamination and inspection of the surroundings with regard to:-

- Evidence of sources of contamination;
- Evidence of viable pathways;
- Evidence of a receptor at risk.

The findings would be recorded by means of an annotated plan of the site. A written record may also be made and accompanied by sketches and/or photographs. Guidance for visual inspection can be found in *BS10175* and *DEFRA CLR2*.

The duration of such an inspection would normally be **up to 1 day**. Following the inspection the risk of contamination would be re-evaluated in association with the relevant Statutory Consultees and the records of the inspection and the subsequent assessment passed to the Statutory Consultees and Appropriate Persons.

5.5 Procedures for Limited (Surface) Sampling

If the visual inspection cannot eliminate the concern over risk of contamination, then the next stage would be to take selected samples from the site and its surroundings. Typically these would include samples of potential waste streams, surface deposits, samples from accessible drains, watercourses and from receptors such as water bodies and gardens.

Although limited in extent, to ensure that samples are representative, a preferred minimum of 3 (certainly not less than 2) samples should be taken of each type of material.

Testing of samples would normally be carried out at a commercial laboratory to be mutually agreed between the Borough Council and the Appropriate Person(s). It may be appropriate to take more samples than it is initially intended to test in case it should prove necessary to obtain more data.

The DEFRA *Industry Profiles* indicate the likely contaminants which may be present on industrial sites and which should therefore be tested for. The contaminants to be tested for would be agreed between the Borough Council and the Statutory Consultees. Preservation of samples is important to ensure that potential contaminants are not lost between sampling and analysis. The selected laboratory would normally be able to advise on appropriate preservation of samples. Outline guidance is provided in **Appendix C**.

5.6 Procedure for Intrusive Investigation

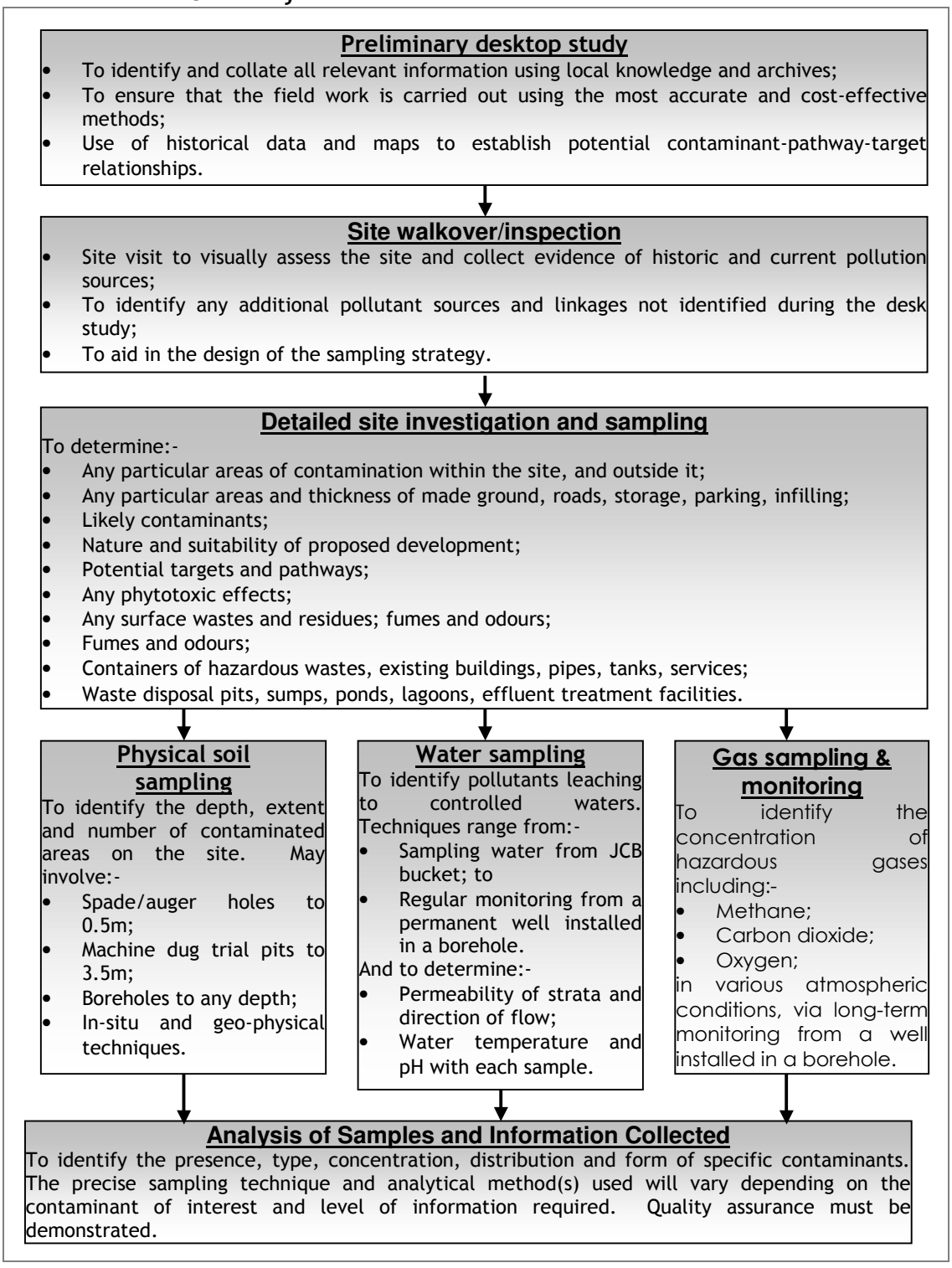
If the above inspections and tests cannot eliminate the concern over risk of contamination, then an intrusive investigation may be carried out. This would normally be expected to be carried out by the Appropriate Person(s), in consultation with the Borough Council to ensure that the extent and scope of the investigation is appropriate to address the risk.

Methods of investigation can include any or all of the following:-

- Machine dug trial holes;
- Small diameter 'window sample' holes;
- Boreholes;
- Groundwater and gas sampling devices installed in boreholes;
- CCTV of drains, sewers, culverts; and other methods as appropriate.

A list of references giving guidance on methods of investigation and sampling techniques/intensity is provided in **Appendix C**.

Summary of hazard identification and assessment



5.7 Site Safety Procedures

All site investigation and works will comply with the Borough Council's existing health and safety strategies and procedures.

5.8 Procedures for Appointing Contractors/Advisors

All appointments of advisors and contractors will comply with the Borough Council's existing procedures relating to contracts to ensure transparency.

5.9 Procedure for Repeat Inspection

The methods of inspection described in **sections 5.2-5.6** may eliminate concerns over risks of contamination up to the date of the inspection. If the use of the site changes and the receptors change then the risk would be re-evaluated as part of the planning process. However, future contamination may occur at any site, or changes may occur in the ground causing the behaviour or nature of contaminants to change. From time to time therefore it may be necessary for the council to carry out repeat inspections of sites where a risk has been raised. This would not automatically be at the level previously carried out but at a level appropriate to the likelihood of a change occurring. For unoccupied sites where the rate of change is low, this would be at **10-15 year increments**. Certain operational industrial premises will be regularly inspected under the provisions of IPPC and air pollution regulation. At other operational sites, inspections may be carried out at **2-yearly intervals** for those using or creating potential pollutants, reducing to **5 year intervals** for those operating relatively inert or small scale processes.

SECTION 6: REVIEWS

6.1 Updating Information

A timetable has been established in **section 3.2** for implementation of inspections. Major reviews of the strategy would be completed at the end of the desk top, walkover and investigation stages. These are anticipated to yield some significant changes to the assumptions in formulating the strategy, particularly with regard to the timetable and priorities, and the strategy may therefore be revised at these milestones. Significant changes may be revealed during the course of the implementation between these milestones, particularly where new high priority sites are revealed which may necessitate a change in priorities.

Any changes to relevant legislation or guidance issued by the other statutory consultees may also prompt a revision to the strategy.

As identified in **section 4.3**, new information received may result in a change to assessments about sites. This may be site-specific or general in relation to the region.

6.2 Auditability

This strategy will have been approved as appropriate by the Environment Agency on behalf of DEFRA. Many of the inspections and assessments made will have been in consultation with the Agency or other statutory consultees.

The process of consultation will offer auditability of decisions made.

To ensure the validity of the decision made, details of 1 site in 20 will be made available to the Derbyshire Association of Local Authorities group which meets on *Part IIA* and they will be invited to review and comment on the appropriateness of the decision made.

SECTION 7: INFORMATION HANDLING

7.1 Storage

The Borough Council have established a Geographical Information System (GIS) on which to manage the inspection data. It is anticipated that this will be upgraded to an interrogateable system during the currency of the period of implementation. Notwithstanding this, much information remains within the council offices on paper format, particularly in the Borough Development/Policy (Planning) Division. It is intended that a **5 year programme** to transfer this to the GIS will be implemented during the inspection implementation stage by **December 2006**. In the interim, this will be used concurrently with the GIS, along with the Landmark information database and the records of internal departments and the Environment Agency. Some data will inevitably be too bulky to attach to the GIS and will be stored and catalogued separately in the Environmental Health Division's contaminated land paper and electronic filing systems.

The Borough Development Division's records are already indexed on a plot by plot basis. It is intended that this would be replicated to link between map information and data relating to individual sites. Indexing by name is not considered suitable as landowners change and site names also change with time.

7.2 Confidentiality

All paper or disc/CD files will be marked confidential if appropriate. Electronic files will be tagged in the same way. The level of confidentiality, who the contents may be disclosed to and any expiry data of that confidentiality will be clearly marked.

7.3 Data Retrieval

The GIS allows copies of map information and attached data to be viewed or printed by the Environmental Health Division for use by other Borough Council departments, the Statutory Consultees, Appropriate Person(s) and the general public, subject to confidentiality. Copies of information too large to fit on GIS will similarly be made available via the Environmental Health Division.

A viewing room will be made available as required to enable selected records to be studied. For internal liaison and with the consultees, viewing and single copies of information will be free of charge. For members of the public and other organisations wishing to inspect the records, the Borough Council's normal charging policy will apply. This is revised and separately published from time to time.

7.4 Remediation Register

In conjunction with responsibilities for the regulation of IPPC and Town and County Planning, the Borough Council will seek to establish and develop a database linked to the GIS system. This will identify the decision made on each site, where remediation has taken place, and the standard to which it has been remediated. The extent of those works and an index of where detailed records of that work are stored will be kept. It is intended that this register will cover all the Borough Council's obligations under contaminated land provision and not just *Part IIA*.

The Borough Council received the following comments from English Nature:

Relevant SSSI citations and other biological and geological information may be included for each site in the public register, especially with regard to the impacts of contamination, investigation or remediation on the interest of the site.

SECTION 8: Appendices

Appendix A: Contact Points at Amber Valley Borough Council and External Consultees

Appendix B: Information Sources and Review - Sources of Information & Evaluation of Sources

Appendix C: Other References

Appendix D Abbreviations

Appendix E: Glossary of Terms

APPENDIX A: Contact Points at Amber Valley Borough Council & External Consultees

AMBER VALLEY BOROUGH COUNCIL	NAME/NUMBER	
Environmental Health & Leisure Division	Susan Sonnex, Head of Division	01773 841316
Amber Valley Borough Council	Michael Downes, Snr EHO	01773 841394
Town Hall	Fax.	01773 841317
Ripley	E-mail	enquiry@ambervalley.gov.uk
Derbyshire	Website	www.ambervalley.gov.uk
DE5 3TU		
Borough Services Division:		
Development Services	Robert Reid	01773 841590
Development Policy Unit	Derek Stafford	01773 841581
Planning Records	Andy Bird	01773 570222 ext.2559
Building Control	Dave Chard	01773 841513
Legal Services	Paul Benski	01773 841641
Property Services	Andy Hadfield	01773 841645

EXTERNAL CONSULTEES	NAME/NUMBER	
Environment Agency	Clare Bates	0115 9455722
Trentside Offices	Andrew Barker	0115 8463730
Scarrington Road		
West Bridgeford		
Nottingham NG2 5FA		
Department of Environment, Food & Rural Affairs (DEFRA)		
Rural Development Service	Adrian Rochford	01284 725350
National Land Management Team	Direct Line/Fax	01773 881098
100 Southgate Street	E-mail	Adrian.Rochford@defra.gsi.gov.uk
Bury St Edmunds		
Suffolk IP33 2BD		
English Nature	Dr Roger Catchpole	01629 815095
Peak District & Derbyshire Team	Fax	01629 815091
Manor Barn		
Over Haddon		
Bakewell DE45 1JE		
English Heritage		01604 75400
East Midlands Region	Fax	01604 735401
44 Derngate		
Northampton NN1 1UH		
Derbyshire Wildlife Trust		01773 881188
East Mill, Bridge Foot, Belper	Fax	01773 821826
Derbyshire DE56 1XH	E-mail	derbywt@cix.co.uk
Derbyshire County Council	Planning	01629 580000 ext.7518
County Hall	County Record Office	01629 580000 ext.35202
Matlock DE4 3AG	Land Reclamation Section	01629 580000 ext.5417
Coal Authority		
200 Lichfield Lane		
Mansfield		
Nottinghamshire		
Food Standards Agency	Dr Nigel Harrison	020 7276 8708
Aviation House	Fax	020 7276 8717
Room 703	E-mail	Nigel.Harrison@foodstandards.gsi.gov.uk
125 Kingsway		
London WC2B 6NH		
East Midlands Development Agency (EMDA)		
Apex Court		
City Link		
Nottingham		
NG2 4LA		

APPENDIX B: Information Sources and Review

Sources of Information

Source of Information	Type of Information	Typical Nature of Information & relevance to... Sources	Pathways	Receptors	Reviewed
Environment Agency	River catchment plan, Flood defence works and location of water courses		Extent of floodplain	Watercourse location, water quality	Y
	Areas of Agency concern regarding water quality and aquifer protection zones Abstraction records (see also AVBC records)	Evidence of existing contamination. Some concern over R Amber, Alfreton Brook & Bailey Brook		Existing water quality, protection of quality, extent of source protection zones	Y
	Locations and nature of consents to discharge	Evidence of existing contamination. No concern recorded.		protection of water course quality	Y
	Location of sites with waste management licences	Details of size, content, whether gassing or leachate issues			Y
	Location of closed landfill sites	(also on planning records)			
	Location of sites with IPC authorisations	Details of potentially polluting activity, possible ground reports. Five reported all at Somercotes/Alfreton			Y
	Locations of licensed nuclear and RSA sites	Details of potentially polluting activity, possible ground reports, none reported (see also AVBC internal)			Y
	Groundwater vulnerability maps		Permeable strata and vulnerability to infiltration	Sensitive aquifers	Y
English Nature	Location of protected organisms/ecosystems Nature reserves			SSSI site location	Y
MAFF	Land use (animal or crop effects) ALC maps	Foot & Mouth disposal sites (not applicable 24/05/01)		Sensitivity of land use to pollution	Y
English Heritage	Records of historic/protected buildings			Locations of protected buildings which may be affected by ground contamination	Y

Source of Information	Type of Information	Typical Nature of Information & relevance to... Sources	Pathways	Receptors	Reviewed
Health & Safety Executive	COMAH sites Accident records (none)	May provide details about potential contamination releases from premises			Y
British Geological Survey	1" Geological records		Permeable strata & mine workings can be migration pathways	Indicates extent of sensitive aquifers	Y
Internal	Planning & Land use records	Location of landfill sites		Location of sensitive receptors – parks, playing fields, housing sites, SSSI's, Rigs, Derby Wildlife register sites and biological site, register sites of archaeological interest.	Y
	Building control records	Information on existing contamination or remediation of sites through building control/planning process IPC Part B sites, internal register of landfills, internal register of private water supplies, private register of RSA sites			Y
	Environmental Health			Known harm to human health, concern over Cinderhill and Firestone Hill, tips, also Crich	Y
	Estates Department records	Register of council owned land			TBC
	Historic ordnance survey maps and aerial photographs	Indication of location of potentially contamination industries			Y (LANDMARK database)
Derbyshire CC	Landfill site records	Details of size, content, whether gassing or leachate issues			Provided by planning dept.
	Mineral workings records	Evidence of potentially contaminated land			Y
Coal Authority	Locations of deep and open cast mines	Spoil heaps and mine sites may be contamination sources Opencast on former industrial sites can contain contaminated materials as backfill	Voids in workings may provide migration pathways for gas and or contaminants Rising groundwater following closure of mines a potential issue for water protection		Y
Derbyshire Wildlife Trust	Local nature reserves			Location/nature of ecologically sensitive areas	Y (recorded in planning records)

AMBER VALLEY BOROUGH COUNCIL EPA PART IIA INSPECTION STRATEGY

Evaluation of Sources

Originator & Title/Name	Nature of Contents
Environment Agency Local Environment Agency Plan	Geology: Sherwood Sandstone (in south of district)} Carboniferous Limestone (in north of district)} Both major aquifers Path/Receptor
Derbyshire Derwent and Lower Trent & Erewash April 1999	Issues and Options Poor quality of water in Alfreton Brook – treated sewage, urban run off, industrial effluents – knock on effect in River Amber. Mine waters provide a vulnerable source of low BOD dilution, but have their own problems ochrous and saline. Poor quality in Bailey Brook (Loscoe Lake – River Erewash) Receptor Environment Agency aware of threat to water quality posed by closed landfills, notably at Crich Environment Agency aware of threat to water quality posed by Clay Cross STW Environment Agency aware of threat to water quality posed by Stevensons Dyers (River Amber) Ambergate Dye Works Environment Agency aware of threat to water quality posed by Belper, diverse industries Source Five chemical works identified (IPC) in Alfreton and S. Normanton (Elastogran, Exchem, Pb Batteries. Contains maps of: discharge locations abstraction locations location of SSSI's, SINC's, SAM's Receptors/Sources Groundwater quality of region generally good. Little affect from natural or artificial pollution. Sandstones are highly transmissive – contaminant vulnerable. Coal and metal mines can discharge poor quality water to watercourses. Overall usefulness of source: Low – most information better available elsewhere Land quality is primarily ALC4, locally ALC3 west of Belper, occasionally ALC1 or 2 west of Derby.

Originator & Title/Name	Nature of Contents	
Environment Agency IPC Records	Available on the Internet, details location, address, name and nature of IPC Part A registered sites. Five sites identified around Alfreton and Somercotes, gives overall indication of nature of process carried out, but be cautious of accuracy of grid reference.	Source
Environment Agency Abstraction Records	Available on the internet, indicates the location of ground and surface water for abstractions and the source protection zones around. Three such areas identified along the River Derwent at Little Eaton, Duffield and Wingfield. Note: Amber Valley Borough Council internal Environmental Health records also identify approximately 50 other private supplies.	
Environment Agency Waste Management Site Details	Available on the Environment Agency CD identifies the location, licence number and status of each site. Does not provide details on gas and/or leachate issues, but this should be available direct from the Environment Agency on a site specific basis.	
Environment Agency Radioactive Substances Act Register of Sites	Available on the Environment Agency CD and reviewed in the LAAP. None are reported, though it is believed that radioactive material is disposed of by Rolls Royce at Hilts Quarry in Crich. Amber Valley internal sources may have more information, specific requests of the Environment Agency Waste Management Team may also be appropriate.	
	Overall evaluation of sources, low, usefulness better information available elsewhere.	
Environment Agency Groundwater Vulnerability Maps	Maps the extent of major intermediate and minor aquifers and sub classifies them according to their vulnerability from the surface soils. Major aquifers are identified as the carboniferous limestone, particularly around Crich and more muddy limestones in the south west of the District. Sherwood Sandstone in the south west is identified as been thin and of low potential but is still a major aquifer. The information is based on that from the geological survey and the agricultural land classification maps. Overall use of the source is good, though limited detail.	Receptor
English Nature Location of SSSI's	Very small scale plan showing seven SSSI's at Ambergate (two quarries), Cromford Canal, Shining Cliff Wood, Kedleston Hall and two in the south west of the District. The scale of the plan is very small, difficult to read. Better information is available in the planning section of Amber Valley. Overall usefulness of the source, medium.	
MAFF (DEFRA) Agricultural Land Use Classification Maps	The majority of the land is identified as ALL 4, locally ALC 3 West Belper and occasionally ALC 1 or 2 in the Kedleston area. Overall evaluation of the source usefulness, medium - precision of the data is not good, most of the land is of low sensitivity.	Receptor

Originator & Title/Name	Nature of Contents	
English Heritage Record of Historic Buildings	List of schedule monuments in the district which includes Codnor Castle, Alderwasley Chapel, Ryknield Street, Ticknall Hill, Holloway Railway Viaduct, Duffield Bridge, Duffield Castle, Horsley Castle, Mackworth Castle, a site in Mapperley Park Wood, Morley Park Ironworks, Wingfield Manor, Castle Hill Camp at South Wingfield. No information is provided other than a name and grid reference, therefore usefulness of the site is medium, though more information would be helpful. Note: Information about other sites of archaeological information is available in the Amber Valley Planning Records.	Receptor
Health & Safety Executive COMAH Records	Plan of one COMAH site at Cotes Park. No information provided about pollution inventory or records of any spills, though this may be available from HSE inspectors on a site specific request basis. Overall usefulness of the source, low – medium.	Source
British Geological Survey Maps	1:50,000 mapping of the district available indicates much of the east of the district is Coal Measures. East of the district is underlain by Millstone Grit (clay and sand strata), the south west is unconformably overlain by thin deposits of Sherwood Sandstone and Mercia Mudstone. Sherwood Sandstone indicated to be poorly developed in this area. Localised deposits of carboniferous limestone present around Crich and very calcareous limestone in the south west of the district. Overall use of the source, good. Note: 6" and geochemical maps do not appear to be available.	Receptor/Pathway
Amber Valley Borough Council Internal Records/Planning and Land Use Records	Detailed series of 1:1,250 and 1:2,500 scale maps of the entire borough highlighted to show: ▪ Parks; ▪ Playing fields; ▪ Housing sites; ▪ SSSIs; ▪ RIGS sites; ▪ Derbyshire Wildlife sites; ▪ Sites of biological interest ; ▪ Sites of archaeological interest; ▪ Location of new and disused landfill sites; Overall usefulness of the source, very good. Note: A large quantity of information is present only in paper form.	 Receptor Receptor Receptor Receptor Receptor Receptor Receptor Receptor Source

Originator & Title/Name	Nature of Contents	
Amber Valley Borough Council Building Control and Environmental Health Records	Officers held personal information on a large number of sites, particularly sites at Firestone Hill and Silkolene near Belper, the disused waste disposal site at Crich and Stevensons Dye Works at Ambergate appear to be of concern, also Cinderhill at Kilburn, though this may be addressed through the planning process. A large number of internal registers, including closed landfill sites, IPPC part B sites, register of private water supplies and register of RSA sites in existence, much of which compliments and correlates with Environment Agency Data. Overall usefulness of the source, excellent, including summary plans and large amounts of supporting data.	Sources & Receptors
Amber Valley Borough Council Landmark Database of Historical Land Use	Summary database of the County Series Ordnance Survey Maps from around 1880 to 1940. Separated into the four different editions of the plan shown as either areas, lines or points appropriate to the size and nature of the feature. The plans are backed up by a database which identifies the nature of the historic land use, though this appears difficult to interrogate quickly and easily. Actual layouts of sites did not feature, merely boundaries. Reference back to the original plan may be required. Overall usefulness of the source, good, provides information on the location and outline nature of a wide range of potentially contaminating land uses.	Source
Derbyshire County Council	Landfill site records. These are duplicated by internal records held by the Amber Valley Environmental Health Department. It includes a list of sites with grid reference and site name. Details of individual sites would have to be re-searched on a site specific basis. Overall usefulness of the source, low – medium.	Source
Derbyshire County Council Historic Maps and Plans	1:2,500 County Series Maps of the District which indicate historic land use. Provides more detail on the information in the Landmark database (see Amber Valley Borough Council records). Overall usefulness of the source, very good, but requires extensive research. See also internal records for Landmark database, which makes useful initial screening tool.	Sources
Derbyshire Wildlife Trust	Location of local nature reserves. This information summarised on planning record maps in Amber Valley Borough Council. A large number of such sites are present but only addresses are given with site outlines. Overall usefulness of the source, low - medium.	Receptor

APPENDIX C: Other References

Guidance in Connection with Site Investigation and Inspection of Contaminated Land
AMBER VALLEY BOROUGH COUNCIL (AVBC), August 1994. **Amber Valley Borough Local Plan.** Ripley: Amber Valley Borough Council
BSI, 1999. **BS5930: Code of Practice for Site Investigation**
BSI, 2000. **BS 10175: Code of Practice for the Investigation of Potentially Contaminated Land**
CIRIA, 1995. **Special Publication 103: Site Investigation and Assessment**
DETR, 1994. **CLR1: A Framework for Assessing the Impact of Contaminated Land on Groundwater and Surface Water**
DETR, 1994. **CLR2: Guidance on Preliminary Categorisation Procedure for Sites which may be Contaminated**
DETR, 1994. **CLR3: Documentary Research on Industrial sites**
DETR, 1994. **CLR4: Sampling Strategies for Contaminated Land**
DETR, 1995. **CLR6: Prioritisation and Categorisation Procedure for Sites which may be contaminated**
DEPARTMENT OF THE ENVIRONMENT, TRANSPORT & THE REGIONS (DETR), May 1999. **National land use database-final estimates of previously developed land in England: 1998.** (May 2000 update) [online]. London: Government Statistical Service. Available at: <URL:http://www.nlud.org.uk/STATS/may2000.htm>
DEPARTMENT OF THE ENVIRONMENT, TRANSPORT & THE REGIONS (DETR), 20 March 2000. DETR Circular 02/2000: **Environmental Protection Act 1990: Part IIA-Contaminated Land.** London: The Stationery Office
Environment Agency, **R & D Report HOCO 352: Development of Appropriate Soil Sampling Strategies for Land Contamination**
Environmental Protection Act 1990 (c.43)
Environment Act 1995 (c.25)
HEALTH & SAFETY EXECUTIVE (HSE), 1991. **Protection of workers and the general public during the development of contaminated land.** London: The Stationery Office
ICE, 1983. **Conditions of Contract for Site Investigation**
ICE (Thomas Telford), 1994. **Specification for Site Investigation**
LOCAL GOVERNMENT ASSOCIATION/ENVIRONMENT AGENCY, May 2001. **Land Contamination Protocol** [online]. London: LGA. Available at: <URL:http://www.lga.gov.uk/lga/publicprotection/environment.pdf>
SCOTTISH EXECUTIVE, October 2000. Planning Advice Note PAN 33: **Development of contaminated land** [online]. Edinburgh: Scottish Executive. Available at: <URL:http://www.scotland.gov.uk/library/pan/pan33-00.asp>

APPENDIX D: Abbreviations

DEFRA	Department for Environment, Food and Rural Affairs (previously DETR/MAFF)
DETR	Department for Environment, Transport and the Regions
EPA 1990	Environmental Protection Act 1990
HSE	Health and Safety Executive
MAFF	Ministry of Agriculture, Fisheries and Food
EMDA	East Midlands Development Agency
LEAP	Local Environmental Action Plan
IPPC	Integrated Pollution Prevention and Control
CCTV	Closed Circuit Television
GIS	Geographical Information Service

APPENDIX E: Glossary of Terms

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

Appropriate person: 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.

Attribution: the process of apportionment between liability groups.

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

Class A liability group: a liability group consisting of one or more Class A persons.

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

Class B liability group: a liability group consisting of one of more Class B persons.

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

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

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."

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, 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.

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).

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".

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

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

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

Local authority: 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".

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

Owner: 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."

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.

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

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

Pollution of controlled waters: 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.

Receptor: either:
(a) a living organism, a group of living organisms, an ecological system or a piece of property which:
    (i) is in a category listed in Table A in Chapter A as a type of receptor, and
    (ii) is being, or could be, harmed by a contaminant; or
(b) controlled waters which are being, or could be, polluted by a contaminant.

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

Remedial treatment action: a remediation action falling within the definition in section 78A (7)(b), that is the doing of any works, the carrying out of any operations or the taking of any steps in relation to any such land or waters for the purpose:
(a) of preventing or minimising, or remedying or mitigating the effects of any significant harm, or any pollution of controlled waters, by reason of which the contaminated land is such land, or
(b) of restoring the land or waters to their former state.

Remediation: defined 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.

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.

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

Remediation statement: 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.

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."