INSPECTION STRATEGY FOR CONTAMINATED LAND IN THE BRADFORD DISTRICT.

Implementation of Part IIA of the Environmental Protection Act 1990.

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1 STATEMENT OF PURPOSE

The purpose of this document is to demonstrate compliance with the statutory guidance issued under Part IIA of the Environmental Protection Act 1990, as inserted by section 57 of the Environment Act 1995.

The statutory guidance is contained within Department of the Environment, Transport and the Regions (DETR) Circular 2/2000. Chapter B, Part 3, paragraph B.12 of that Circular requires every local authority to set out its strategic approach as a written strategy, to be adopted and published within 15 months of the issue of the guidance.

The adoption of The Inspection Strategy was approved by the Executive Committee of the City of Bradford Metropolitan District Council (minute 153) on 18 December 2001.

Note:- DETR is now replaced by the Department for Environment, Food and Rural Affairs (DEFRA).

2 INTRODUCTION

In April 2000, a new regime for regulation of contaminated land was implemented under Part IIA of the Environmental Protection Act 1990. This regime is intended to identify land which is currently used, but which may pose unacceptable threats to health or the environment, and to ensure that the state of that land is made suitable for use.

The legislation introduced under Part IIA is only intended to deal with sites "in current use" and will not deal with sites which are identified through the planning system. Sites which are identified whilst being dealt with by the planning system, should be remediated to a state "suitable for use" before planning permission for that use is implemented. It is envisaged that most sites where a potentially contaminating process has been carried out, will be dealt with through the planning system, rather than through the implementation of Part IIA.

The Local Authority is the primary regulator for Part IIA. The Environment Agency will regulate "Special Sites" and provide technical support to Local Authorities. The regulatory roles, and their interaction with other regimes, are explored in more detail in section 3.1 below.

The Inspection Strategy is intended to provide a structured framework for implementation of Part IIA in the Bradford District.

The Draft Inspection Strategy was circulated for consultation to a number of internal and external bodies and individuals (listed in Appendices 7.2, 7.3, and 7.4), and was made available on the Authority's website (http://www.bradford.gov.uk).

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3 BACKGROUND INFORMATION

3.1 OUTLINE OF THE NEW REGIME FOR CONTAMINATED LAND

3.1.1 Definition of contaminated land under Part IIA.

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

> *any land which appears to the LOCAL AUTHORITY in whose area it is situated to be in such a condition, by reason of substances in, on or under the land, that*
>
> *(a) SIGNIFICANT HARM is being caused or there is SIGNIFICANT POSSIBILITY of such harm being caused, or*
> (b) *POLLUTION OF CONTROLLED WATERS is being, or is likely to be caused"*

Thus land may be polluted but, unless it presents a significant risk to a receptor such as a human being or an aquifer used to supply water, the presence of a former contaminative use does not require action by the Local Authority.

3.1.2 Principles of pollutant linkages.

In order for land to be "contaminated" under the terms of the legislation there must be at least one significant pollutant linkage. A pollutant linkage comprises:

- a **contaminant**, in, on or under the ground, which has the potential to cause harm to specified receptors or pollution of controlled waters;
- a **pathway**, one or more routes by which the contaminant is causing significant harm, or which presents a significant possibility of causing such harm;
- and a **receptor**, of the type specified in Circular 2/2000.

This concept of a pollutant linkage can be illustrated thus:-

CONTAMINANT → PATHWAY → RECEPTOR

E.G. (LANDFILL GAS ⟶ GROUND/STRATA ⟶ LOCAL HOUSES)

If a contaminant, pathway and receptor exist, then an assessment must be made of the risk of harm being caused and the likely nature and extent of that harm, if it occurs. An area of land will only be determined under Part IIA if a significant risk and therefore a "significant pollutant linkage" exists.

In order for land to be determined as "contaminated" land as defined in the legislation, every part of the pollutant linkage must be present. If part of the linkage is absent then, whilst the land may be polluted, it cannot be determined as "contaminated" land under Part IIA.

Local Authorities can only consider significant harm to specified receptors. The definitions of the terms used are defined within the Statutory Guidance and also presented in the Glossary. The table of receptors is presented in Appendix 7.5 (from Circular 2/2000, Table A).

3.1.3 Principles of risk assessment.

DETR Circular 2/2000 states that the definition of contaminated land is based on the principles of risk assessment. "Risk" is defined as the combination of:

(a) the probability, or frequency, of occurrence of a defined hazard (for example, exposure to a substance with harmful properties); and
(b) the magnitude (including seriousness) of the consequences.

In the context of Part IIA, assessment of risk must be made at two levels. One is an assessment of risk in relation to the whole district. This assessment will effectively provide a framework for prioritising studies of areas of the district based on the likelihood of contamination problems existing.

The second level is on a site-specific basis. This will be used where a site has been identified as being potentially contaminated. An assessment of the risk related to that site will be required to decide whether any remediation is necessary, and whether the site should be "determined" by the Local Authority under the legislation. A number of frameworks or models are available to help quantify site-specific risks.

The DEFRA is expected to issue guidance in the form of the Contaminated Land Exposure Assessment (CLEA) for a number of contaminants, which will assist to some extent in providing a common framework for the U.K. context. However, this will not deal with all contaminants or all site-specific situations, and other quantitative models or qualitative risk assessments will be required.

3.1.4 Regulatory role of Local Authorities under Part IIA.

Part IIA of the Environmental Protection Act 1990, inserted by Section 57 of the Environment Act 1995, places a duty on Local Authorities to inspect their area for contaminated land.

Each Local Authority is obliged to set out its approach to inspection of the district as a formal strategy adopted by Bradford Council. This must be adopted and published within 15 months of the implementation of the legislation. Therefore, the Inspection Strategy must be adopted and published by 30 June 2001.

The statutory guidance contained within DETR Circular 2/2000 provides an outline of how Part IIA is to be implemented. Detailed procedural guidance will be produced by Department for Environment, Food and Rural Affairs (DEFRA) and the Environment Agency (EA).

The implementation of Part IIA replaces the use of statutory nuisance powers which were used to deal with contaminated land under Part III of EPA 1990.

Bradford Council's duties under Part IIA include:-

1. A duty under Section 78B to inspect the district in accordance with a strategy covering all relevant issues which must be adopted and published by 30 June 2001. The purpose of the inspection is to identify contaminated land and decide whether any Special Sites (see section 3.1.5) are to be designated (in accordance with Statutory Guidance Circular 2/2000).

2. A duty under Section 78E, which requires the Authority, on identification of any contaminated land, to serve a remediation notice requiring the land to be remediated. The need to consult with all parties involved makes this a complicated process and the Authority must be satisfied prior to taking formal action, that this is the only option. A remediation notice should not be served if the remediation will be carried out anyway e.g. by bringing forward redevelopment of a site.

3. A duty under Section 78R, to maintain the remediation register. The content of the register is defined in the Act. The register must be kept at Bradford Council's principal office, and for the purposes of this legislation, the principal office will be taken to be the offices at Jacobs Well.

The Local Authority will be the "enforcing authority" for Part IIA except where the site is a Special Site, in which case the Environment Agency will be the enforcing authority.

3.1.5 Regulatory Role of the Environment Agency.

The Contaminated Land (England) Regulations 2000 defines "Special Sites" as including:-

- land affecting controlled waters;
- land contaminated by waste acid tars;
- land where refining of oil has been carried out;
- land where the manufacture of explosives has been carried out;
- land on which prescribed processes designated for central control (i.e. IPC or IPPC) have been carried out;
- nuclear sites;
- land owned or occupied by a military force or organisation
- land used to manufacture, produce or dispose of chemical and biological weapons.

The E.A. has a major role in the implementation of Part IIA including:-

- regulation of Special Sites once these are determined by the Local Authority;
- provision of information and advice, including site specific guidance, including in regard to controlled waters, to support decision making;
- production of technical and procedural documents to assist Local Authorities*;*
- and co-ordination of information from Local Authorities to produce a national report on contaminated land.

3.1.6 Identification of Appropriate Persons.

The purpose of identifying the "appropriate persons" is to ensure that those with most liability for the contamination deal with the necessary remediation to remove the pollutant linkage(s). It follows the principle that "the polluter pays".

There are two classes of liability. One is as a "Class A person" and the other is as a "Class B person":-

- Class A person is an appropriate person because s/he has caused or knowingly permitted a pollutant to be in, on or under the land.
- Class B person is an appropriate person because s/he is the owner or occupier of the land.

If there is more than one person, company or body, they are described as being in either a Class A liability group or a Class B liability group. If a Class A liability group exists then they will have the opportunity to decide between themselves on how to apportion the liability. If they cannot decide, then the Local Authority can make recommendations on how this will be carried out. If there is no Class A liability group then the Class B liability group will have responsibility for taking appropriate action to break the significant pollutant linkages.

There are a number of exclusion tests which can be applied to check whether liability does exist.

Where no Class A or B persons can be identified then the site may have an "orphan linkage" and thus become an orphan site. The Local Authority will therefore have to make arrangements to deal with remediation.

3.1.7 Requirements of a strategic approach.

Local Authorities are required to inspect their areas, from time to time, in line with their written strategy, in order to identify any land that meets the statutory definition of contaminated land. If a potential "significant pollutant linkage" is identified, then the Local Authority is responsible for determining whether the land meets the definition of contaminated land in section 3.1.1 above. This responsibility cannot be delegated to any other body.

The approach taken in the strategy must:-

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

3.1.8 Other regulatory regimes.

The implementation of Part IIA will involve an understanding of how it integrates with other regulatory regimes. The most important of these are:-

- the town and country planning regime;
- Water Resources Act regulated by the Environment Agency;
- Waste Management Licensing Regulations implemented by the Environment Agency;
- Integrated Pollution Prevention and Control and Integrated Pollution Control regulated by the Environment Agency and Local Air Pollution Control regulated by the Environmental Protection Division of Bradford Council
- Health and Safety at Work by Bradford Council and the Health and Safety Executive.

Town and Country Planning.

The majority of contaminated land issues are currently addressed through the planning system, as contaminated land is a material planning consideration. It is anticipated that redevelopment of brownfield sites will remain the primary mechanism for dealing with contaminated land.

The current Bradford District Unitary Development Plan (U.D.P.), which is under review, gives guidance to developers on contaminated land and requires submission of reports as and when necessary.

Contaminated land issues should be comprehensively addressed before planning permission is granted. The remediation measures thus agreed should be implemented as part of the development process and controlled by conditions imposed in the planning permission. Only in exceptional circumstances should planning conditions be imposed, which relate to assessment of risk and investigation of contaminated land.

Under Government guidance (Planning Policy Guidance Note 23 –Planning and Pollution Control, February 1997), the Local Planning Authority is required to decide:-

- whether there is, or might be a contamination issue on the site;
- what further information they would need to decide that question;
- whether a proposed use or development of the site could give rise to unacceptable risk to health or the environment and if so, what steps by way of restrictions on the proposed use or other development of the site should be taken to reduce those risks.

It is perceived that the best way of minimising such risks is to identify any possible contamination at the earliest stage of the planning process, whether that is before an application is submitted or as part of the formal planning application. Planning conditions are only considered appropriate when they ensure that measures outlined in the remediation plan will be carried out.

Information gained through the planning process will be useful in the identification of land requiring action under Part IIA. The information gained from the inspection of the district for sites which may be “contaminated” under Part IIA will also help to inform the planning system. It should assist in the identification of land which may have been subject to contaminative uses in the past and which may require consideration if the land use changes.

Water Pollution.

The Water Resources Act 1991 gives the Environment Agency (E.A.) powers to deal with harm to controlled waters being caused by contaminated land. Part IIA legislation does not replace these powers and prior to any determination being made this Authority will consult with the EA to discuss the appropriate legal mechanism for control of the contamination. This Authority will take into account comments made by the EA with respect to the characterisation of the problem and the remediation requirements.

Waste Management.

Part II of the Environmental Protection Act 1990 establishes waste management controls for the licensing of waste handling and disposal operations and the prevention of illegal deposits of waste. The E.A. is the regulatory authority for these controls.

In addition, the Refuse Disposal Amenity Act 1978 also provides Local Authorities with powers to deal with abandoned waste. The contaminated land regime cannot be applied where powers exist to deal with waste under these provisions. Action under this regime could be applied where pollution of the ground has occurred, or is occurring, outside the scope of the waste legislation.

Integrated Pollution Prevention and Control.

Many industrial processes have been controlled since 1991 under Part 1 of the Environmental Protection Act 1990. This regime is implemented by the Environment Agency under Integrated Pollution Control, which regulates emissions to air, water and land, and by Local Authorities under Local Air Pollution Control, which regulates emissions to air.

These regimes are being replaced by “Integrated Pollution Prevention and Control” (IPPC), which has wider implications for industrial processes and will require a site condition baseline survey to identify contaminated land issues before a permit to operate is issued. The installation operator will then be expected to ensure that the processes do not contaminate the land further.

However, the site condition baseline survey may identify land which is contaminated under the terms of Part IIA. Whilst the operator may not be obliged to inform the Local Authority where this is the case, it would be advisable for them to do so. If information is later uncovered which implicates the company, then it may have liabilities under Part IIA as having “knowingly permitted” the pollutant to continue to be in, on or under the land, and therefore may be a Class A person (see section 3.1.6 above and the Glossary).

Existing processes will be brought into the IPPC regime over the next seven years, although it will apply immediately to any new processes or any substantial change to an existing process.

Health and Safety at Work

Where there is a risk of harm to persons at work on contaminated land, it should be addressed under the Health and Safety At Work etc. Act 1974 and its associated regulations and guidance. The regulatory bodies are the Health and Safety Executive and the Environmental Protection Divisions of Bradford Council.

3.2 THE KEY POLICIES OF THE CITY OF BRADFORD METROPOLITAN DISTRICT COUNCIL.

3.2.1 2020 Vision.

The cornerstone for Council policy in the Bradford district is "2020 Vision". This defines the ambitions for the future of the district. The 2020 Vision clearly identifies that the people of Bradford want "a district where they are justifiably proud of where they live, learn, work and play".

Within the 2020 Vision a number of objectives are identified. These include:

- an economy which:-
  - uses resources efficiently and effectively
  - minimises waste and utilises recycling and renewable energy resources

and

- a district which is clean, healthy, safe and has excellent public services.

This Inspection Strategy is part of the work towards ensuring that land is used efficiently and effectively and that the environment within the district is clean, healthy and safe.

3.2.2 Local Agenda 21 and Sustainable Development.

Agenda 21 is the "Earth Action Plan drawn up by the United Nations at the Earth Summit in 1992. Over 150 nations committed themselves to safeguard the planet for the future. Agenda 21 recognises that two thirds of the action required to bring about global sustainable development can only happen locally.

Bradford Council has pledged to work towards a vision of a sustainable district. This was agreed by full Council in the Strategic Overview of the Service Plans 1995/96. The three aims of the vision of a sustainable district are:-

- Social regeneration
- Economic regeneration
- Environmental management.

Within the Council, the Policy Development Service co-ordinates and supports the implementation of sustainability within Bradford Council and with the wider community.

The implementation of Part IIA will support the continued use, and re-use, of land in a sustainable way by identifying problems of land contamination and requiring their remediation to minimise problems in the future. In addition, the Planning system will support this aim by ensuring that re-development of land takes place in such a way that problems are not hoarded for the future.

3.2.3 Best Value.

Bradford Council is committed to providing the Best Value service to the community for which it works. As part of this commitment, the approach taken to contaminated land will be informed by the principles of Best Value and appropriate local key indicators developed to monitor progress on implementation of Part IIA.

Within the Environmental Protection Division a Key Performance Indicator (KPI) has been identified in relation to the implementation of Part IIA. The KPI states:-

KPI-POLL2 To identify land which is contaminated in current use (as defined by Statute) and secure appropriate remediation to make it suitable for use. (Baseline and indicator to be set in July 2001 by which time the strategy for contaminated land must be in place).

For the Minerals and Waste Team in the Development Control Section (Planning), Recommendation 3 in the Best Value Review Team's report to the Overview and Scrutiny Committee (Environment), states that the Minerals and Waste Team should assist in the development and implementation of the contaminated land strategy.

There are currently no national Best Value indicators in relation to contaminated land. National performance indicators for the implementation of Part IIA will be derived from the data collected from Local Authorities by the E.A. as part of the work to produce the National Strategy for Contaminated Land. However, the DEFRA, via the Environment Agency, has commissioned a project to derive performance indicators on contaminated and polluted land. The recommendations in the report will be considered when it is released.

The publication of this Strategy will be the first step to ensuring compliance with the legislation. However the implementation of the strategy will require commitment of resources in order to ensure that the Authority meets the terms of the legislation, and is prepared to meet the local and national performance targets once these are established.

3.2.4 Multi-Agency Environmental Strategy.

The (DRAFT as at 2/5/01) Multi-Agency Environmental Strategy (MAES) has been developed by Bradford Council in co-operation with other bodies such as the Environment Agency, the Health Authority, Yorkshire Water, Bradford University and other external organisations. The MAES supports the 2020 Vision and provides the sustainable input to its implementation plan, the Five Year Strategy.

Contaminated land is identified as a key issue in the MAES and objective 5 includes an indicator to:-

- Identify land which is "contaminated in current use" and secure appropriate remediation to make it suitable for use,

and a target to:-

- Complete the strategy for implementation of the new regime for contaminated land by July 2001.

3.2.5 Corporate Environmental Policy.

The Corporate Environmental Policy was agreed by the Leader and Chief Executive in March 1998. It states that the Council aims to manage its strategies and activities to the best practicable environmental standards. Key concerns identified include:-

- act and campaign against pollution , e.g. air, water and land accepting the principle that the polluter should pay:
- land use and management – ensuring the long term, appropriate use of buildings and land assets

The principles underlying Part IIA include the concept that the polluter should pay and the implementation of the regime will require the Council to consider the appropriate management of its own land.

3.2.6 Beacon Council Status.

The Beacon Council Scheme is an annual scheme whereby Beacon Status is awarded by the DEFRA to councils who demonstrate excellence in a particular service or cross cutting service area.

There are currently no applications by Bradford Council for Beacon Council status.

3.3 BRADFORD DISTRICT CHARACTERISTICS

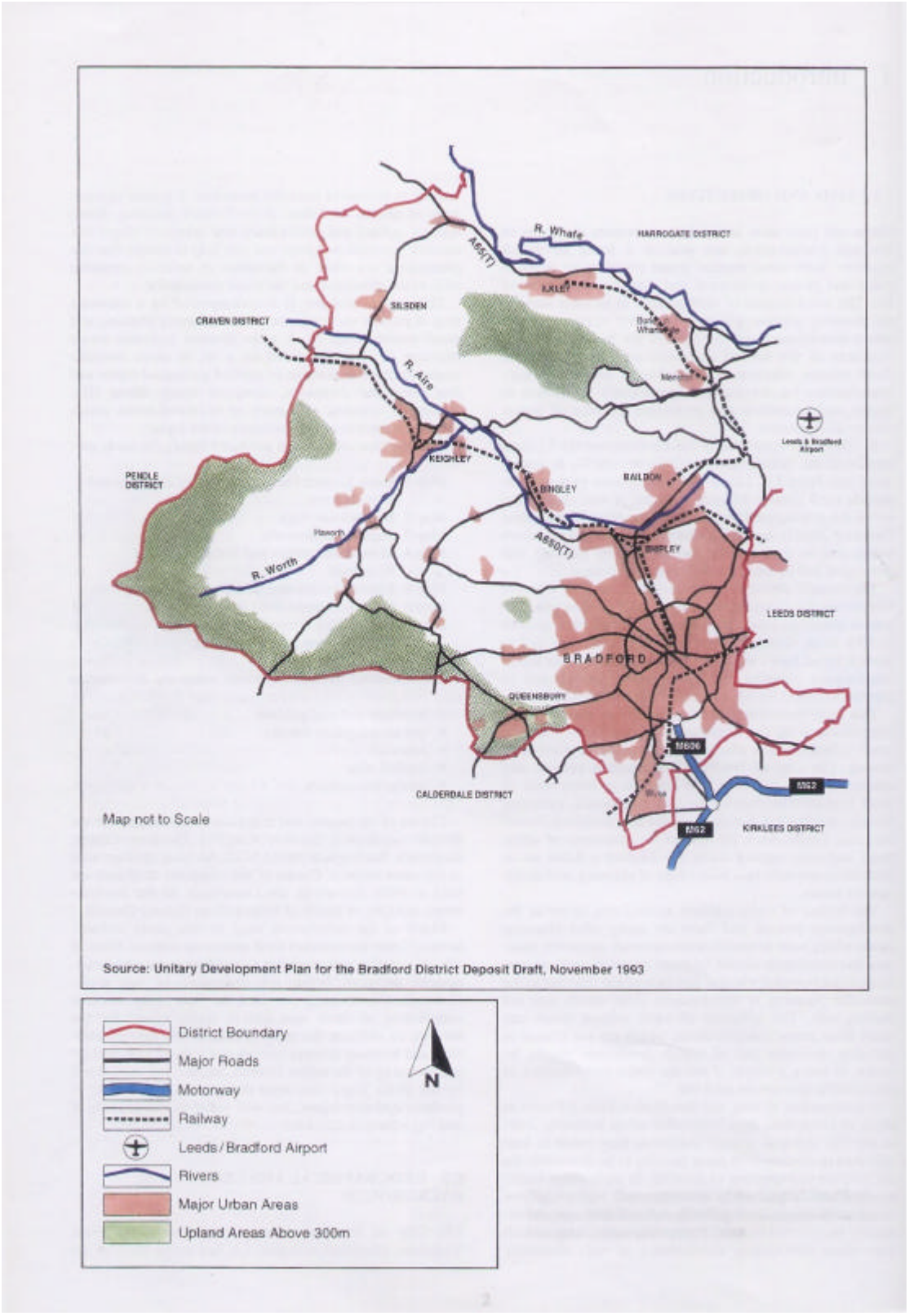
3.3.1 General description.

The Bradford Metropolitan district is located on the east of the Pennines between Leeds and Halifax. The district covers an area of approximately 400 square km, from Wyke in the South to Ilkley in the North, and from the western edge of Leeds to Oakworth Moor in the west (see the map below for location and major features of the area).

The population of the district in 1998 was 486,000. This is expected to grow to 511,000 by 2011. Around 30% of the district has been urbanised, and this area contains about 86 % of the population. The majority of the population lives in Bradford, with other population centres in Airedale including Shipley, Saltaire and Bingley, and in Wharfedale including Ilkley and Burley-in-Wharfedale. Keighley is located at the confluence of the Rivers Aire and Worth. The industry in the area has developed mainly in the valley bottoms and alongside streams in the moorland areas. The main urbanised valley area leads from Bradford, to Shipley, though Saltaire and

Bingley and then to the other main industrial centre of the district in Keighley. The Wharfe valley remains predominantly rural.

Map: Location of District and Major Features.



3.3.2 Industry.

The textile industry dominated the area for 150 years and still forms an important part of the economic profile of the district. The industrial base also includes engineering, printing and packaging firms, banks, building societies and export companies. Textile processing itself included potentially contaminating activities such as wool scouring (washing), bleaching, dyeing, finishing, and pest-proofing. Many of the chemicals used in the wool industry, such as dyes and soaps, were originally derived from coal tar products. The industry has developed to include production of chemicals such as polymers and other finishing agents. The printing and packaging industry in the area grew up in response to the need to distribute goods within this country and around the world. The financial services to deal with the import of material and export of goods was also related originally to the textile industry. The coal extracted from the Coal Measures strata in the south of the district helped to fuel the process of industrial growth.

3.3.3 Surface water.

The main river systems comprise:-

- the becks in the south of the district which drain to the south into the River Calder;
- the streams around Bradford which drain into Bradford Beck and then into the River Aire;
- the River Worth which meets the River Aire in Keighley and drains the catchment from the moors in the west of the district;
- the River Aire which continues towards Leeds in the east;
- and the River Wharfe which drains across the north of the district towards the east.

Surface water is important because it can be both a pathway and receptor for contamination. Certain stretches of river are used for recreation, including paddling and immersion sports such as canoeing.

The water for public supplies in the district comes from surface water. Most of it is from reservoirs, although there are also a number of licensed spring sources and significant quantities are abstracted from the River Wharfe. Water is “imported” from higher up the Wharfe and from the Nidd Valley and pumped to the local reservoirs for distribution. Water is also abstracted under licence for industrial cooling and processing purposes.

The river ecosystem itself may be sensitive to contaminants and some types of pollutants may become concentrated in the sediments in the rivers.

The Environmental Protection Division carry out sampling and analysis of the water in the rivers, becks and streams across the district. The quality of the watercourses was reviewed in an internal draft report entitled ”The Quality of Rivers and Watercourses in the Bradford Metropolitan District 1993-1996”. A final report was not issued and further data analysis, aimed at producing an up to date report, is currently being undertaken by the University of Bradford, Department of Civil Engineering.

The Environment Agency undertake river water quality sampling across the district and the summary results are available on the web-site at http://www.environment-agency.gov.uk “What’s in your backyard?” section. The information presented there, demonstrates that the water quality is more likely to be poor or bad (according to the

EA's General Quality Assessment (GQA) classification system) in the urban areas such as the centre of Bradford, and in the becks to the south of the district which drain toward the Calder catchment. The Aire catchment tends to have better water quality until it reaches the confluence with Bradford Beck in Shipley. The Wharfe water quality tends to be very good through the north of the district.

It should be noted that the GQA classification scheme is only for chemical parameters and there are other water quality issues involved including pesticides, pathogens and other criteria related to the current and previous industrial and other effluent impacts on the watercourses.

3.3.4 Geology.

The bedrock geology comprises Coal Measures, which underlie much of the south-east of the district, and Millstone Grit, which underlies the remainder. The Coal Measures are formed mainly from sandstones with siltstones, mudstones and coal seams. The Millstone Grit is formed mainly from sandstones with siltstones and mudstones but there are relatively fewer and thinner seams of coal.

Across much of the district, the bedrock is overlain by glacial and post-glacial superficial deposits. These glacial deposits are mainly formed from clay, silt and sand with larger cobbles and boulders occurring locally. River deposits can also be identified, such as River Terrace Deposits, alluvial fan deposits at the confluence of some of the rivers and alluvium deposited by rivers and streams. Peat is found in upland and lowland areas across the district.

The bedrock and natural superficial deposits may locally be overlain, or replaced, by artificial, man-made deposits including landfilled refuse, or other areas of made ground such as that formed by excavation waste from civil engineering projects.

The geology of the area is important in identifying contaminants, pathways and receptors in relation to contaminated land. Contamination from geological sources can include radon gas from radioactive minerals, carbon dioxide and methane from coal deposits and metals from ore minerals.

In this district, there is a "radon affected area" which occupies a 5km grid square located mainly across Ilkley Moor. New properties in this area must have radon protection installed and note is made of the situation on land searches made during property transactions. In addition, the Building Research Establishment (BRE) recommend that a geological assessment should be carried out to determine whether basic radon protection is required for development in some other areas of the district (BRE, 1999). The British Geological Survey "Radon Protective Measures Geographical Information System" can be used for this purpose.

Parts of the district have been affected by mine gas seepage. However, the bedrock geology of this area does not have sources of ore minerals which can lead to high naturally occurring chemical contamination of the soil (c.f. Derbyshire and North Yorkshire).

Rocks can form pathways for migration of contaminants. The permeability of the rock dictates whether it allows fluid or vapour to move through it. The permeability also dictates whether the rock is a useful aquifer i.e. whether it contains water which can be abstracted for drinking or industrial processes. The Coal Measures and

Millstone Grit, which underlie much of this area, are considered by the Environment Agency to be Minor Aquifers. As is noted above, there is no abstraction for public supplies, although some small private domestic and agricultural demands, particularly in Addingham, Burley in Wharfedale, Haworth, Ilkley, Oxenhope, Silsden, Steeton and Thornton are supplied by shallow wells and springs.

There are a number of commercial water bottling plants in the district. Information on the locations of these plants will be added to the GIS (see also section 4.3.2 Information Management).

3.3.5 Soils

Soil is formed by the breakdown of the underlying rock and the accumulation of organic matter. Other physical processes such as glaciation, movement of sediment by water in rivers and movement of water within the soil structure are also important. It has taken several thousand years to form the natural soils which currently exist across the district.

Glaciation and the deep weathering which occurred in the inter-glacial periods, were responsible for the basic formation of many of the soils in the Bradford district. Therefore the natural soils which currently exist effectively form a non-renewable resource (DETR, March 2001). The national Draft Soil Strategy notes:-

> "Soil is not just a resource in itself, but is an essential requirement for the production and renewal of other natural resources. It has key roles in the production of other natural resources such as timber and energy crops, and the environmental cycling of water and air."

The soils in the urban areas of the district are not necessarily representative of the natural soils. Soils in urban areas have been disturbed and in many cases displaced or covered by buildings or hardstanding, landscaping features or fill materials.

The Environment Agency publishes Groundwater Vulnerability Maps which identify the vulnerability of the groundwater to contamination. These maps also show the soil vulnerability classification, which provides some indication of whether the characteristics of the soils are likely to facilitate the movement of contamination.

Whilst this information is not likely to provide much assistance with regard to sites where development or other ground disturbance has taken place, it may be useful in considering the migration of plumes of contamination in the off-site, near surface environment (see also section 4.3.2 Information Management).

3.3.6 Protected areas.

The potential ecological receptors as defined within Part IIA are listed in the table below, along with sites which have been designated within the district.

TABLE 1 : ECOLOGICAL RECEPTORS IN THE BRADFORD DISTRICT	
PART IIA ECOLOGICAL RECEPTORS	**SITES IN THE BRADFORD DISTRICT**
- *an area notified as an area of special scientific interest under section 28 of the Wildlife and Countryside Act 1981;*	• Oxenhope Moor (including Keighley Moor, Haworth Moor and Stanbury Moor); • Rombalds Moor (including Ilkley Moor, Burley Moor and Bingley Moor); • Bingley South Bog; • Trench Meadows, Shipley • Yeadon Brickworks and railway cutting (a geological SSSI) (mainly in Leeds City Council area).
- any land declared a national nature reserve under section 35 of that Act;	None.
- *any area designated as a marine nature reserve under section 36 of that Act;*	None.
- an area of special protection for birds, established under section 3 of that Act;	None.
- *any European Site within the meaning of regulation 10 of the Conservation (Natural Habitats etc) Regulations 1994 (ie Special Areas of Conservation and Special Protection Areas);*	• South Pennine Moors – which includes Ilkley Moor and Oxenhope Moor SSSIs
- any candidate Special Areas of Conservation or potential Special Protection Areas given equivalent protection;	• The South Pennine Moors are also being considered as a Special Area of Conservation.
- any habitat or site afforded policy protection under paragraph 13 of Planning Policy Guidance Note 9 (PPG9) on nature conservation (ie candidate Special Areas of Conservation, potential Special Protection Areas and listed Ramsar sites); or	• See above.
- any nature reserve established under section 21 of the National Parks and Access to the Countryside Act 1949.	There are no Local Nature Reserves designated within the district.

Whilst other types of ecological receptors may be locally important, for the purposes of Part IIA the Authority must only consider the potential for significant harm to the receptors stated in Statutory Guidance provided in Circular 2/2000.

Where potentially contaminated sites in the vicinity of the above receptors are identified during the inspection of the district, then the Planning Division will consider them in the Planning process.

The Nature Conservation Strategy for Bradford (September 1998) identifies other sites across the district, such as Sites of Ecological/Geological Interest (SEGIs) e.g. Shipley Glen, Coppice Pond and Bog at St. Ives, Bingley and the Leeds Liverpool Canal. These sites are defined in the Unitary Development Plan for protection against adverse developments. A third tier of sites has also been identified and these are known as Bradford Wildlife Areas (BWA's). These have been selected for community as well as biological interest.

These second and third tier sites cannot be considered to be ecological receptors under Part IIA, but the Nature Conservation Strategy operates as Supplementary Planning Guidance in the determination of planning applications. Therefore, as sites are redeveloped, the ecological issues can be considered.

3.3.7 Buildings including ancient monuments.

Property, in the form of buildings, is considered to be a significant receptor within the Statutory Guidance. The definition of significant harm in relation to buildings is considered to be:-

> "Structural failure, substantial damage or substantial interference with any right of occupation… (such that) …any part of the building ceases to be capable of being used for the purpose for which it was intended."

In addition, where a scheduled Ancient Monument is affected then the definition of substantial damage is considered to be:-

> "… when the damage significantly impairs the historic, architectural, traditional, artistic or archaeological interest by reason of which the monument was scheduled."

Within the district there are known to be approximately 194 scheduled Ancient Monuments. Many of these are "Cup and Ring" carvings, that is, a range of rock carved symbols (petroglyphs) that are found mainly on the moors above Ilkley. The carvings are estimated to be around 4000 - 5000 years old which dates them to the Neolithic and Bronze ages. Other Ancient Monuments include the Twelve Apostles stone circle at Burley in Wharfedale, the remains of pre-historic settlements and the site of the Roman fort at Ilkley.

Procedures will be required to ensure that consultation takes place if Part IIA land is identified which may impact on a scheduled Ancient Monument. (See also section 4.3.2 Information Management.)

There are 1500 discrete archaeological sites and find spots on the Sites and Monuments Record for the Bradford District (not including buildings of historic interest) (WYAS Comments, 25/6/01). These will need to be considered when a site is to be redeveloped through the planning system.

Within the district there are also 5800 listed buildings and 56 Conservation Areas. These sites are not noted specifically in the Statutory Guidance but if a listed building was threatened by contamination so that it may become unfit for its current use then it may be a potential receptor under Part IIA.

4 THE STRATEGY

4.1 AIMS, OBJECTIVES, ACTION AREAS AND TARGET DATES.

The aims, objectives, action areas and target dates are summarised in Table 2 below. The Action Areas identified in the table are discussed in detail in section 4.3 below.

TABLE 2: SUMMARY OF AIMS, OBJECTIVES, ACTION AREAS AND TARGET DATES.

AIMS	OBJECTIVES	ACTION AREAS	TARGET DATES
Aim 1. To identify the approach which will be taken to identify land, which is contaminated in current use (as defined by Statute) and secure appropriate remediation to make it suitable for use.	Objective 1. Adoption of the Inspection Strategy by this Authority.	Consultation and adoption by Authority.	By 30 June 2001.
	Objective 2. Initially to deal with sites requiring urgent remediation action on an ad hoc basis.	Site specific basis initially. Then see objective 4E.	Ongoing.
	Objective 3. To identify the resources required to implement the Inspection Strategy within an agreed timetable.	No procedure identified.	Ongoing.
	Objective 4. To identify the procedures and timetable to be used to inspect the district to identify land which may be contaminated in current use.	See Objectives 4A to 4G below.	Defined within the Strategy.
	Objective 4A To establish a system to monitor progress on implementation.	Action Area A – Management of Implementation.	By November 2001.
	Objective 4B To establish, and populate, a robust information management system on G.I.S.	Action Area B – Information Management.	July 2001 – July 2002 (resource dependant)
	Objective 4C To establish an effective site prioritisation system to inform the inspection of the district to identify contaminated land.	Action Area B – Information Management.	July 2001 – July 2002 (resource dependant)
	Objective 4D To establish internal and external information access systems.	Action Area B – Information Management.	July 2001 – July 2002.
	Objective 4E To establish formal procedures for dealing with sites requiring urgent remediation action.	Action Area C – Urgent Remediation.	July 2001 – November 2001
	Objective 4F To establish a system for providing information for the Environment Agency's national report on contaminated land.	Action Area B – Information Management.	July 2001 – July 2002.

TABLE 2: SUMMARY OF AIMS, OBJECTIVES, ACTION AREAS AND TARGET DATES.			
AIMS	OBJECTIVES	ACTION AREAS	TARGET DATES
	Objective 4G To establish a procedure for the review of the strategy.	Action Area A – Management of Implementation.	July 2001 – July 2002.
Aim 2. To identify how this Authority will prevent the creation of more land which would need to be dealt with under Part IIA.	Objective 5 To establish effective inter-departmental liaison, to support the production of procedures, including where appropriate, the establishment of internal prioritisation systems, which will minimise the likelihood of more Part IIA land being created by the actions or omissions of the Authority.	Action Area D – Inter-departmental Liaison.	July 2001 – July 2003.
	Objective 6.To establish information management links between Departments to facilitate the co-ordination of information.	Action Area D – Inter-departmental liaison.	July 2001 – July 2003
Aim 3. To identify how this Authority will manage its own land to deal with contamination issues	Objective 5. (As above.)	Action Area D – Inter-departmental liaison.	July 2001 – July 2003
	Objective 6. (As above.)	Action Area D – Inter-departmental liaison.	July 2001 – July 2003
Aim 4. To identify how this Authority will deal with polluted and contaminated land in a cost effective and efficient manner, which provides the Best Value for the community.	Objective 7. To establish (or contribute to) effective local Key Performance Indicators for the implementation of Part IIA, the redevelopment process and the management of Authority owned land.	Action Area D – Inter-departmental liaison. Action Area A – Management of Implementation.	Jul 2001 – July 2002
	Objective 8. To liase with national, regional and local contacts, to consider optimum methods of dealing with contaminated (Part IIA) and polluted (identified thorough the planning process) land.	Action Area A – Management of Implementation.	Ongoing.

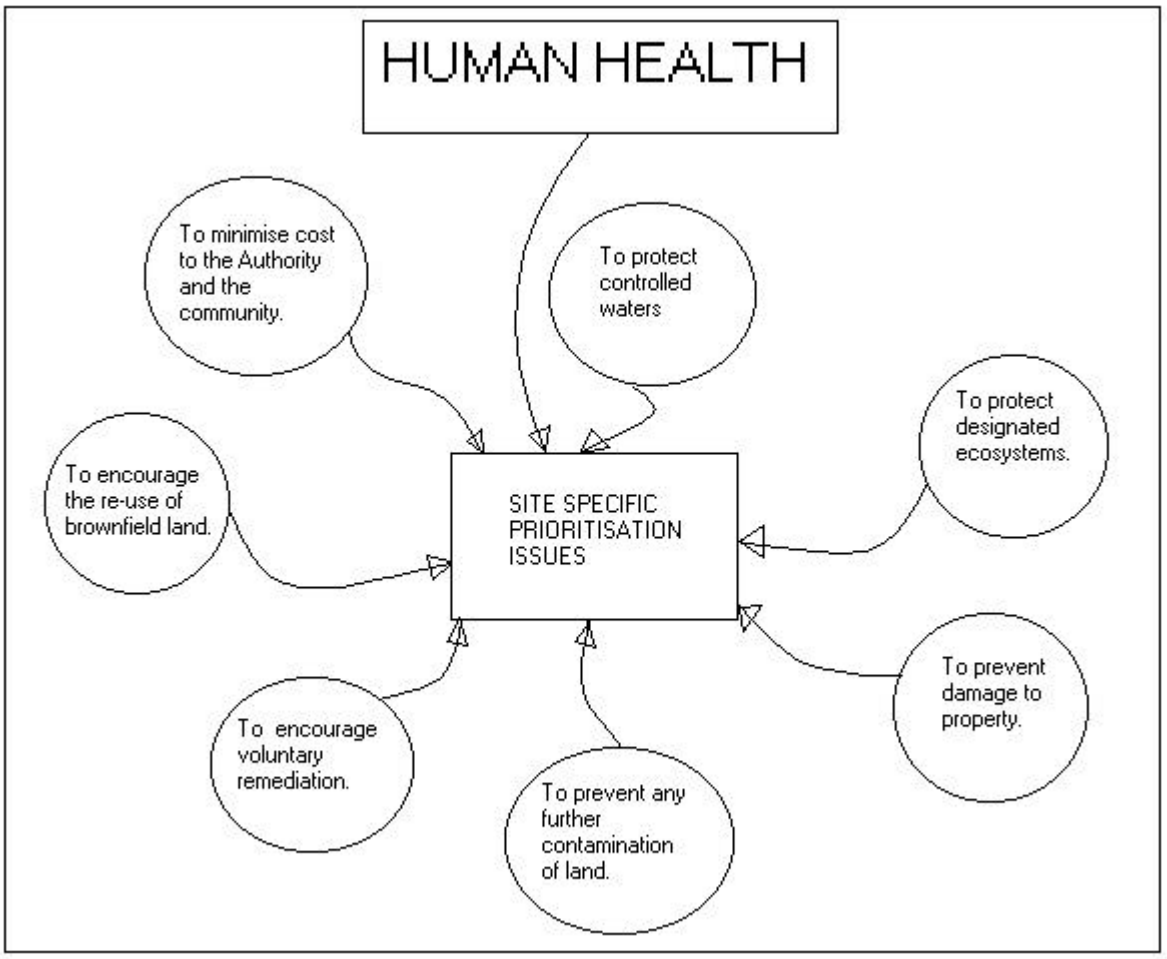
4.2 PRIORITIES

The Authority's primary priority in dealing with contaminated land is **TO PROTECT HUMAN HEALTH.**

However, the relevance of this and other priority criteria illustrated in Figure 1 will vary from site to site depending on the site characteristics and an assessment of risks posed.

A more detailed system of prioritisation must be developed in order to identify the sites which require the most urgent attention and derive a rolling programme for investigation of these and other sites. This is further discussed in section 4.3.2. under the heading "Site prioritisation system".

Figure 1: Site Specific Priority Factors.



4.3 ACTION AREAS

4.3.1 Action Area A – Management of Implementation.

<u>Drafting of the Inspection Strategy.</u>

The production of the Inspection Strategy has been delegated to the lead officer on contaminated land within the Specialist Pollution Team in the Environmental Protection Division, working in co-operation with the Minerals and Waste Team in the Planning Division.

The Part IIA Project Team was formally established in September 2000 and comprises officers from the Environmental Protection and Planning Divisions and the Corporate Geographical Information Systems Manager.

In order to ensure that the strategy considers all aspects of the Authority's activities in relation to contaminated land, an internal Stakeholder Group was identified. Members of the Stakeholder Group include officers from Legal Services and the major land owning directorates. The membership of the Part IIA Project Team and the Stakeholder Group is detailed in Appendices 7.1 and 7.2.

Long term implementation of the strategy.

The data collection and information management related to the strategy implementation will be dealt with by the Minerals and Waste Team in the Planning Division.

The assessment of the information relating to the inspection of the district will be carried out by the Part IIA Project Team. A standard procedure for this interaction will be developed as part of the implementation process.

The enforcement of the regime will be the responsibility of the Environmental Protection Division, subject to consultation with the Planning Division and the Legal Services Division. Standard procedures for implementation will be derived from the national guidance to local authorities, which is expected to be published by the Department of the Environment, Transport and the Regions in the summer of 2001.

The Part IIA Project Team will remain in existence to oversee the implementation of the regime, unless other systems are identified.

Action required:

- **Identification of work programme for July 2001 – July 2002**
- **Identification of responsibilities for implementation.**
- **Identification of staff resources.**
- **Identification of financial resources for information management and data collection (see also below).**
- **Definition of procedures for implementation.**
    - **Procedures for prioritised inspection of district – see Action Area B below.**
    - **Procedures for review of district in priority order.**
    - **Procedures for recording information – see Action Area B below.**
    - **Procedures for determining sites.**
    - **Procedures for identifying appropriate persons and determining liabilities.**
    - **Procedures for ensuring appropriate remediation.**

4.3.2 Action Area B – Information Management.

The implementation of the Strategy will require a large amount of data to assist in the prioritisation of the inspection of the district. The inspection of the district also has

the potential to generate a large amount of information. All of this data can best be stored and processed using a Geographical Information System (G.I.S.).

The Specialist Pollution Team in the Environmental Protection Division and the Minerals and Waste Team in the Planning Division currently have access to Arcview which is the Authority's preferred desktop G.I.S. The Minerals and Waste Team have already entered basic data about closed landfill sites onto the G.I.S. However, for effective implementation of Part IIA many other data sets will be required. The Authority is in the process of implementing a web-based G.I.S. which could be developed to manage and disseminate information to officers.

Prior to commencement of the inspection of the district for sites which may be contaminated in current use, a comprehensive information management system will be required to process data and enable site specific prioritisation of the work to take place.

Action required:-

- **Identify key internal data sets which will be required within the G.I.S.**
- **Commence work on entering key internal data.**
- **Identify key external data sets required.**
- **Acquire key external data sets.**
- **Identify optimum local system for data management.**
- **Identify inspection prioritisation system.**
- **Define procedures for review of data and for the prioritised inspection of the district.**
- **Commence review of data and prioritisation of sites.**
- **Set up procedures for recording information collected during review of sites.**

The key data sets, which are likely to be useful in implementation, their sources, and uses are summarised on the table below:-

TABLE 3: DATA SOURCES.

RESOURCE	**SOURCE**	**USE/STATUS IN AUTHORITY**
OS Landline	Ordnance Survey	Identification of sources/receptors
OS Landline (polygonised)	Sological Solutions	Identification of sources/receptors
Digital historic maps	Ordnance Survey – via the Ordnance Survey Liaison Officer (OSLO)	Identification of potentially contaminative uses of land. Should be available – requires discussion with OSLO and GIS Manager
Digital geological maps (solid, drift, hydrogeology etc. from Applied Geological Mapping data sets)	British Geological Survey, Keyworth, Notts.	Identification of potential sources, pathways and receptors

TABLE 3: DATA SOURCES.		
RESOURCE	**SOURCE**	**USE/STATUS IN AUTHORITY**
Geochemical data	British Geological Survey, Keyworth, Notts.	To examine potential pollutant linkages both under Part IIA and for technical responses to Planning consultations
Hydrogeological data	British Geological Survey, Keyworth, Notts.	Identification of potential pathways and receptors
Groundwater Vulnerability Maps	Environment Agency (originally produced by the National Rivers Authority)	To assist in the identification and sensitivity classification of receptors (controlled waters)
Source Protection Zones	Environment Agency website	To help characterise receptors (controlled waters)
Licensed abstractions of surface and groundwater	Environment Agency	Identification of potential receptors
Discharge consents	Environment Agency	Identification of potential sources
Known landfill sites	Already on Arcview system held by Minerals and Waste Team	Identification of potential sources
Waste Management Licences	Environment Agency data already supplied to the Authority	Identification of potential sources (need to check data)
Previously re-developed sites	Planning records	Identification of potential sources, pathways and receptors
Environmental Protection Records	The Environmental Protection Division keeps records of enquiries and information related to land, air, water and other drainage issues. E.g. Locations of water bottling abstraction boreholes	Identification of potential sources, pathways and receptors
Integrated Pollution Control and Local Air Pollution Control Registers	The Environmental Protection holds public registers of information under these regimes	Identification of potential sources, pathways and receptors
Aerial photographs	The Authority has digital aerial photographs	Identification of current land use and potential sources, pathways and receptors
Local Studies Archives	West Yorkshire Archive Service	To research potential pollutant linkages

TABLE 3: DATA SOURCES.		
RESOURCE	**SOURCE**	**USE/STATUS IN AUTHORITY**
Local knowledge	There is a significant local knowledge among officers of the Authority. This may be helpful in identifying potentially contaminated land	Identification of sources and receptors
Mineshaft and Colliery Spoil Data	Coal Authority	Identification of sources and pathways
Petrol Stations	Petroleum Licencing Officer	Identification of potential sources.
Derelict Land Survey	Planning Division	Identification of potential sources
Minerals Extraction Sites	Minerals and Waste Team, Planning Division	Identification of potential sources/receptors
Surface water quality	Environment Agency, Environmental Protection Division surveys	Identification of potential pathways/receptors
SSSI's, SPA's, SAC's	Countryside Service	Identification of potential receptors.
Scheduled ancient monuments	West Yorkshire Archaeology Service, English Heritage	Identification of potential receptors.

The Authority has access to digital maps under licence from the Ordnance Survey. The licence will now include access to digitised historic land use maps, which will provide an invaluable resource. However, the Part IIA Project Team are investigating the potential to use Bradweb the Council's intranet to provide access to information.

Site prioritisation system.

In parallel with data acquisition, a risk based prioritisation system must be identified and implemented to enable the identification of sites which may meet the definition of contaminated land under Part IIA (see section 3.1.1 above). The highest priority will be given to sites where human health is identified as an issue.

A methodology for risk assessment is to be published by the DEFRA in the form of a "Handbook of Model Procedures for the Management of Contaminated Land, CLR 11" (not yet available). There are also a number of consultancies which can provide risk-based prioritisation systems. These and other models will be assessed on a cost-benefit basis and a recommendation made by the Part IIA Project Team on the most appropriate system.

Public Register (Paper copy.)

A file to contain the paper copy of the public register is located in the reception for the Planning Division (Third Floor, Jacobs Well, Bradford BD1 5RW) which is open during normal office hours 8.30 to 17.00 Monday to Thursday and 8.30 to 16:30 on Friday.

Documents relating to the "determination" of a site as being contaminated under the terms of the legislation, are not required to be entered onto the public register. However, as sites are dealt with then other specified documents, such as notices and notifications, will be entered onto the public register. The type of information entered may comprise:-

- Remediation notices served by the Authority;
- Appeals against any such remediation notices;
- Remediation statements or remediation declarations prepared and published under the terms of the legislation;
- Appeals against charging notices served by the Authority;
- Notices relating to the designation of any land as a special site;
- Notices terminating the designation of any land as a special site;
- Notifications from persons on whom a remediation notice has been served or who were required to prepare and publish a remediation statement, of what they claim has been done by them by way of remediation;
- Notifications from owners or occupiers of land on which a remediation notice has been served or a remediation statement has been prepared and published, of what they claim has been done on the land by way of remediation;
- Convictions for offences covered by the legislation;
- Other matters relating to contaminated land as may be prescribed.

The register will not contain details of historic land use and other records used in the investigation of potentially contaminated land.

The entry of information onto the register is required by the legislation. It does not prove that what is stated on the document has actually been done, nor does it prove that the methods stated have been used. The public register is a copy of information submitted or produced as part of the remediation process and the Local Authority is not liable for the validity of the information which it contains.

A "reasonable" charge may be made for copies of information entered onto the public register. Information about current charges is available from the reception for the Planning Division.

Action required:-

- **Definition of procedure for entering information onto the public register including cross-referencing key data to GIS and the summary register on the Authority's internet site (see below).**

Public Register (electronic).

A summary list of data available on the Remediation Register will be made available on the website at http://www.bradford.gov.uk by July 2002, however, this will not constitute the formal register and will be for information purposes only.

Other Information.

As the Authority proceeds with collation of information about potentially contaminated land, research files will be compiled as part of the process. The information on these files forms the Authority's research information and as such is considered to be confidential. Therefore this information will not be made available to the public.

Where requests for information on a factual site-specific basis are received, they will be dealt with by the Minerals and Waste Planning Team under the appropriate legislation relating to access to information. A "reasonable" charge may be made for copies of information.

Environment Agency Information Requirements.

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

- A summary of Local Authority inspection strategies, including progress on implementation as stated in the strategy and its effectiveness;
- The amount of contaminated land and the nature of the contamination;
- Measures taken to remediate land.

The national survey will clearly be reliant on information provided by Local Authorities as the lead regulators in the implementation of Part IIA. A memorandum of understanding has been drawn up between the Environment Agency and the Local Government Association which describes how information will be exchanged between them.

The Environment Agency has provided a standard format for exchange of information when a site is determined as contaminated land and when a remediation notice, statement or declaration is issued or agreed. This format will be used by this Authority to facilitate the continuing exchange of appropriate information.

Action required:-

- **Establishment of procedures for providing information to the E.A. for the national survey;**
- **Establishment of procedures for providing standard information to the E.A. on a site specific basis.**

4.3.3 Action Area C – Urgent Remediation Action

The strategic approach to inspection of the district should, according to paragraph B.9 of the Statutory Guidance provided in Circular 2/2000,

> "(c) seek to ensure that the most pressing and serious problems are located first."

Paragraph B.14 also states that:

> "The Local Authority should not await the publication of its strategy before commencing more detailed work investigating particular areas of land, where this appears necessary."

This indicates that where significant harm is being caused by the state of the land or there is a significant possibility of significant harm, then the Authority should identify how it will deal with the problem.

The identification of such sites, which will effectively require urgent attention, may occur as a result of:-
- information from other regulatory bodies e.g. the Environment Agency, being passed to the Authority;
- as a result of enquiries to the Environmental Protection Division;
- as a result of information included on applications for Planning permission;
- as a result of enquiries to the Planning Division, or
- by other means.

Where this is the case then the Environmental Protection Area Team, with the support of the Lead Officer on Contaminated Land in the Specialist Pollution Team, will co-ordinate the site-specific approach which will be taken.

This will involve liaison with all relevant parties, including the landowner and/or occupier, Planning Division, Legal Services, and other internal and external individuals and bodies as necessary.

Procedures for dealing with sites requiring urgent remediation action will be derived from the procedural guidance to be published by the DEFRA in the summer of 2001. In the interim, sites will be dealt with on an individual basis.

Action required:-

- **Establishment of procedures for dealing with sites requiring urgent remediation action will be developed on receipt of the national procedural guidance.**

4.3.4 Action Area D – Inter-departmental Liaison.

There are a number of key departments with which standard liaison and information exchange procedures will be required. These are, in the main, represented on the Stakeholder Group, (see Appendix 7.2).

Action required:-

- **Procedures will be developed and established in co-operation between the Part IIA Project Team and the relevant Departments.**

<u>Bradford Council land interests.</u>

The City of Bradford Metropolitan District Council (CBMDC) has considerable land holdings within the district. A number of properties outside the district are also owned by the Authority. The previous land holdings of the Authority will also need to be considered with regard to potential residual liabilities.

Information on land ownership is held by the Asset Management Division. It will be necessary to establish procedures to ensure that the Authority identifies the potential liabilities associated with land within this ownership. Working corporately, the Asset Management, Planning, Legal and Environmental Protection Divisions will need to produce the necessary procedures.

The land within the ownership of the Authority will be dealt with on the basis of “risk”.

4.4 Liaison and communication

The implementation of the Inspection Strategy will require close co-operation between many Departments within the Authority, with external agencies, current and previous land owners and occupiers of property, and with the community and individuals who may be affected by contamination or the work to remediate that contamination.

Consultees.

A list of departments, external agencies and other consultees is found in Appendices 7.2, 7.3 and 7.4 These contacts will be directly invited to comment on the draft of the Inspection Strategy. The Strategy will also be available on the Authority's website at http://www.bradford.gov.uk

Comments on the draft will be taken into consideration when the final report is produced and tabled for adoption by the Authority. Copies of comments will also be entered onto the website unless the consultee indicates that they are confidential.

Communication with owners, occupiers and other stakeholders.

The Authority will seek voluntary action to deal with any remediation of contaminated land, before considering enforcement action. This approach is promulgated in the legislation and statutory guidance on the implementation of Part IIA. However, it is also the preferred approach of this Authority and is reflected in other enforcement policies, for example, the Environmental Protection Division Enforcement Policy for Local Air Pollution Control, and the Planning Enforcement Policy and Procedures. This Authority is also in the process of adopting the Enforcement Concordat, which was produced by the Cabinet Office and aims to ensure that fair and transparent practices are used when taking enforcement action.

Should it be necessary for the Authority to undertake works in default then it will always seek full cost recovery, together with the additional costs for officer time incurred by carrying out this action.

There are a number of incentives to undertaking voluntary action. Firstly, any materials which require disposal as a result of voluntary remediation will be exempt from landfill taxes. This exemption does not apply to materials generated as a result of a remediation notice having been served. Secondly, information about contaminated land (except for Special Sites) will not be entered onto the Public Register unless a remediation notice has to be served or other documents such as a Remediation Statements are received, thus minimising the impact of "blight".

The communication of risk associated with contaminated land must be handled sensitively but openly in order to ensure that all stakeholders understand as fully as possible the issues involved in a way which avoids unnecessary stress.

Communication procedures will be produced to assist in the implementation of an equitable approach to dealing with sites identified. Guidance, such as that discussed in the SNIFFER (Scottish and Northern Ireland Forum For Environmental Research) publication "Communicating Understanding of Contaminated Land Risks" 2000, will be used to assist in the production of such procedures.

Determining an area of contaminated land.

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

1 Write to the owners and/or the occupiers and/or the appropriate persons of the contaminated land at least 5 days prior to formal determination of that land, explaining the Council's intention and summarising the reason for the determination;
2 Write to the owners and/or the occupiers and/or the appropriate persons explaining that the land has been formally determined as contaminated land, and that, initially, the Authority is seeking appropriate remediation without the service of a remediation notice;
3 In conjunction with step 2 notify the Environment Agency of the formal determination;
4 If requested by one of the stakeholders, dispatch a copy of the formal determination document within 5 working days of receipt of that request.

Adjoining Local Authorities.

Where a site is identified within 500m of a boundary with another Local Authority, then that Authority will be informed in writing once a determination is made that the land is contaminated according to the definition under Part IIA. It is envisaged that in most cases, informal liaison with the adjoining Local Authority will have taken place prior to designation.

Serving a remediation notice.

If voluntary action is not undertaken, a remediation notice may be served on the owners/occupiers and or appropriate persons, as required, specifying the action required. This will be done by the Environmental Protection Division after consultation with colleagues in other Divisions as appropriate including Legal Services.

Powers of entry.

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

Where the site involved is likely to be a Special Site, the Authority will consider authorising a person nominated by the Environment Agency to exercise the above powers on behalf of the Authority.

4.5 ***Programme for implementation.***

	2001	2002	2003	2004	2005	2006
	JFMAMJJASOND	JFMAMJJASOND	JFMAMJJASOND	JFMAMJJASOND	JFMAMJJASOND	JFMAMJJASOND
Action Area A: Management of Implementation.						
Inspection Strategy.						
Adopt						
Resource Allocation.						
Id. Work programme for 2001/2						
Id. Responsibilities for implementation.						
Id. Staff resources.						
Id. Financial resources for info. management.						
Definition of procedures for implementation.						
Action Area B: Information Management.						
Identify data management and prioritisation systems.						
Populate data management system.						
Use systems to identify sites in priority order						
Action Area C: Urgent Remediation Action						
Deal with sites requiring urgent remediation action.						
Establish procedures for sites requiring urgent remediation action on receipt of the national procedural guidance.						
Action Area D: Inter-departmental Liaison.						
Establish procedures to ensure that the Authority identifies the potential liabilities associated with land within its ownership.						
Review the Inspection Strategy.						

4.6 Review mechanisms

Under the legislation, the Authority has a duty to keep this Strategy under periodic review. This Authority will undertake a full review of the Strategy every 5 years.

However, there may be reasons to review part or all of the Strategy more frequently than this and the main issues which could trigger such a review include:-

- If the Key Performance Indicators derived within the Best Value framework indicate that this is needed;
- To revise timescales if required;
- To improve procedures;
- To take account of changes in legislation;
- To take account of the establishment of significant case law or precedent;
- To take account of changes in technical or procedural guidance on dealing with contaminated land;
- To reflect changes in the Authority's policies and strategies.

The progress on implementation will be reviewed annually by the Part IIA Project Team in liaison with the Internal Stakeholder Group and a report presented to the appropriate Council Committees.

5 BIBLIOGRAPHY

City of Bradford Metropolitan District Council, 1998. "Nature Conservation Strategy for Bradford. Nature and People. Copy of Supplementary Planning Guidance". Approved by Transportation, Planning and Design Sub-Committee 28 September 1998.

Department of the Environment, 1994. Planning Policy Guidance Note 23 " Planning and Pollution Control".

Department of the Environment, Transport and the Regions, 2000. Circular 2/2000 "Contaminated Land". March 2000.

Department of the Environment, Transport and the Regions. 2000. Contaminated Land Inspection Strategies. Technical Advice for Local Authorities. Draft for comment, April 2000.

Department of the Environment, Transport and the Regions, 2001. The draft soil strategy for England – a consultation paper. March 2001. http://www.environment.detr.gov.uk/consult/dss/index.htm

Environment Agency, 2000. Contaminated Land Part IIA of the Environmental Protection Act 1990. (Information Leaflet).

Ferguson, C., Darmendrial, D., Freier, K., Jensen, B. K., Jensen, J., Kasamas, H., Urselai, A., and Vegter, J. (editors) 1998. Risk Assessment for Contaminated Sites in Europe. Volume 1. Scientific Basis. LQM Press, Nottingham.

Forest of Dean District Council, 2000. Contaminated Land Inspection Strategy. Consultation Draft. November 2000.

Kirklees Metropolitan Council, 2001. Contaminated Land Strategy (Draft for Consultation). January 2001. http://www.kirklees.gov.uk

Leeds City Council, 2001. Contaminated Land: An Inspection Strategy for Leeds. Spring 2001. http://www.leeds.gov.uk

Mendip District Council, 1999. Contaminated Land Inspection and Assessment Strategy. March 1999.

Portsmouth City Council, 2000. Contaminated Land Strategy Document. 6 March 2000.

Scottish Environmental Protection Agency, 2000. Planning Advice Note PAN 33, Development of Contaminated Land. Revised October 2000. http://www.scotland.gov.uk/library/pan/pan33-oo.asp

Scottish Environmental Protection Agency, 2000. (Introduction to Part IIA.) http://www.sepa.org.uk/contaminated-land/index.htm

SNIFFER, 1999. Report SR(97) 11F. Communicating Understanding of Contaminated Land Risks. 1999.

Solihull Metropolitan Borough Council, 2001. Contaminated Land Inspection Strategy. Draft Consultation. January 2001.

Statutory Instrument 2000, No. 227. Environmental Protection, England. The Contaminated Land (England) Regulations 2000.

Walsall Metropolitan District Council, 2001. Contaminated Land Inspection Strategy. January 2001.

Waters, C.N., Northmore K., Prince G. & Marker B.R., 1996. A geological background for planning and development in the City of Bradford Metropolitan District. *British Geological Survey Technical Report,* No. WA/96/1.

6 GLOSSARY.

Appropriate person: Defined in section 78A(9) of Part IIA of the Environmental Protection Act 1990 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."

Best Value: A term introduced by the Local Government Act 2000. It requires all local authorities to fundamentally review the need for and manner that a service is provided. An important element of the review is to consult with local service users and compare with other service providers.

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

CBMDC City of Bradford Metropolitan District Council (referred to in the text as Bradford Council).

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

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

Class B liability group: A liability group consisting of one or 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).

CLEA: Contaminated Land Exposure Risk Assessment, a risk assessment model for determining the risk to human health for a range of chemicals (not yet published by DEFRA).

CLR: Contaminated Land Report – A series of guidance documents published by the Department of the Environment (now DEFRA).

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 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 water and ground waters.

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

(a) the current use should be taken to include any temporary use, permitted under town and country planning legislation, to which the land is, or is likely to be put from time to time;

(b) the current use includes future uses or developments which do not require a new, or amended, grant of planning permission;

(c) the current use should, nevertheless, be taken to include any likely informal recreational use of the land, whether authorised by the owners or occupiers or not. (For example, children playing on the land.) However, in assessing the likelihood of any such informal use, the local authority should give due attention to measures taken to prevent or restrict access to the land; and

(d) in the case of agricultural land, however, the current agricultural use should not be taken to extend beyond the growing or rearing of crops or animals, which are habitually reared on the land.

DEFRA The Department for Environment, Food and Rural Affairs (formerly DETR)

DETR: The Department of the Environment, Transport and the Regions (now the Department for Environment, Food and Rural Affairs)

E.A. Environment Agency

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.

Enforcement Concordat: An agreed framework published by the Cabinet Office to ensure open, fair and consistent enforcement of legislation.

G.I.S.: Geographical Information System, a computer system which is capable of assembling, storing, manipulating, and displaying geographically referenced information, i.e. data identified according to their locations. This digital map based information can then be related to other information via e.g. spreadsheets, word-processed documents or databases.

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."

IPPC: Integrated Pollution Prevention and Control. A new regime introduced to extend the existing procedures and processes covered under Part 1 of the Environmental Protection Act 1990 controlling potentially polluting processes.

Local Authority: Defined in section 78A(9) as meaning any unitary authority, Borough council, the Common Council of the City of London, the Sub-Treasurer of the Inner Temple and the Under-Treasurer of the Middle Temple.

Orphan linkage: A significant pollutant linkage for which no appropriate person can be found, or where those who would otherwise be liable are exempt 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 a trustee for any other person, is entitled to receive the rack rent of the land, or where the land is not let at rack rent, would so be entitled if it were so let."

Part IIA: Part IIA of the Environmental Protection Act 1990, inserted into that Act by section 57 of the Environment Act 1995.

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 78(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) (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.

Remediation*:* Defined in section 78A(7) as

"(a) the doing of anything for the purpose of assessing the condition of -

(i) the contaminated land in question;

(ii) any controlled waters affected by that land; or

(iii) any land adjoining or adjacent to that land;

(b) the doing of any works, the carrying out of any operations or the taking of any steps in relation to any such land or waters for the purpose -

(i) of preventing or minimising, or remedying or mitigating the effects of any significant harm, or any pollution of controlled waters, by reason of which the contaminated land is such land; or

(ii) of restoring the land or waters to their former state; or

(c) the making of subsequent inspections from time to time for the purpose of keeping under review the condition of the land or waters."

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

Remediation notice*:* Defined in section 78E(1) as a notice specifying what an appropriate person is to do by way of remediation and the periods within which he is required to do each of the things so specified.

Remediation statement*:* Defined in section 78H(7). It is a statement prepared and published by the responsible person detailing the remediation actions which are being, have been, or are expected to be, done as well as the periods within which these things are being done.

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.

SNIFFER: Scottish and Northern Ireland Forum for Environmental Research. A company with objectives including that of furthering the promotion and dissemination of scientific research in the areas of air, water, waste and the environment. (http://www.sniffer.org.uk/)

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."

SSSI: Site of Special Scientific Interest

U.D.P.: Unitary Development Plan

7 APPENDICES

7.1 Part IIA Project Team

DEPARTMENT/DIVISION	OFFICER
Environmental Protection Division, Department of Environmental Protection and Waste Management, Specialist Pollution Team Town Hall, Kirkgate Shipley, BD18 3EJ	Ann Barker Pollution Control Officer Lead Officer (Contaminated Land)
Transportation Planning and Design, Minerals and Waste Team, Jacobs Well, Manchester Road, Bradford, BD1 5RW	Samantha Lunn Planner
Transportation Planning and Design, Minerals and Waste Team, Jacobs Well, Manchester Road, Bradford, BD1 5RW	Carole Haworth Senior Planning Officer
Environmental Protection Division, Department of Environmental Protection and Waste Management, Specialist Pollution Team, Town Hall, Kirkgate Shipley, BD18 3EJ	Brian Anderson Environmental Health Manager (Pollution)
Transportation Planning and Design, Jacobs Well, Manchester Road, Bradford, BD1 5RW	Keith Stones Group Planning Manager
Policy and Executive Support, Research and Consultation, Fourth Floor, Jacob's Well, Manchester Road, Bradford, BD1 5RW	Erik Thomasson Corporate G.I.S. Manager

7.2 Stakeholder Group.

DEPARTMENT/DIVISION	OFFICER
Asset Management,	Eric Felton, Principal Property Services Officer
Environmental Protection and Waste Management, Cleansing and Transport Services	Colin Hill, Technical Manager
Environmental Protection and Waste Management, Environmental Protection	Nicholas Milsom, Environmental Health Officer
Environmental Protection and Waste Management, Environmental Protection, Specialist Pollution Team	Ann Barker, Pollution Control Officer, Lead Officer (Contaminated Land)
L.A.21	John Bibby, Environmental Management Policy Officer
Legal Services	Frank Suadwa, Team Leader, Development and Regulatory Law Team
Regeneration Support, Land and Property Team	Simon Woodhurst, Land and Property Manager
Transportation Planning and Design, Building Control	Ivan Hartop, Senior Building Control Surveyor
Transportation Planning and Design, Minerals & Waste	Samantha Lunn, Planner
Transportation Planning and Design, Strategy and Implementation Team	Gerry McGuckin, Planner

7.3 Internal Consultees

DEPARTMENT/DIVISION	NAME
Marketing and Communications, City Hall	Sharrion Llewellyn, Deputy Head of Marketing & Communications, Karen PERRY Senior Media Relations Officer
Policy and Executive Support, City Hall	Alan Dalton, Policy Director
Transportation Planning and Design, Countryside Service, Jacobs Well	Anne Heeley, Planning Officer
Transportation Planning and Design, Heritage Conservation, Jacobs Well	Wyn Jones, Planning Officer

7.4 External Consultees

ORGANISATION	ADDRESS	CONTACT	RESPONSE RECEIVED
Aire Valley Conservation Society	12 Ghyllwood Drive Bingley West Yorkshire BD16 1NF	Mrs. Penny Ward	Yes
Bradford Business and the Environment Forum	Mercury House, 4 Manchester Road, Bradford BD5 OQL	Mr. Moklis Ali Mr. Andrew Murison	
Bradford Chamber of Commerce & Industry	Phoenix House, Rushton Avenue, Bradford, BD3 7BH	Sandy Needham	
Bradford Environmental Action Trust	c/o Local Agenda 21 Unit, City of Bradford MDC, City Hall, Bradford BD1 1HY	Dave Melling	
Bradford Health Authority	New Mill, Victoria Road, Saltaire, Shipley, West Yorkshire BD18 3LD	Dr. Ruth Gilletlie	Yes
Bradford Vision	PP Room 3.06, Bradford Telephone Exchange, Sharpe St., Bradford BD5 0QJ	Martin Garrett	

ORGANISATION	ADDRESS	CONTACT	RESPONSE RECEIVED
Calderdale M.B.C.	Health and Social Care Directorate Environmental Health Services Northgate House Halifax HX1 1UN	Ryan Carroll	
Craven District Council	Housing and Environmental Health Service Unit 9 High Street Skipton North Yorkshire BD23 1AB	Lindsey Quinn	
English Heritage	37 Tanner Row York YO1 6WP	Ian Smith Regional Land Use Planner	Yes
English Nature	Bull Ring House Northgate Wakefield WF1 1HD	Brian Davies	Yes
Environment Agency	Phoenix House Global Avenue Leeds LS11 8PG	David Walmsley	Yes
Food Standards Agency	Room 238 Ergon House 17 Smith Square PO Box 31037 London SW1P 3WG	Dr. Patrick Miller, Contaminants Division	Yes
Government Office for Yorkshire and The Humber	PO Box 213 City House New Station Street Leeds LS1 4US		
Harrogate Borough Council	Department of Health and Housing Springfield House Kings Road Harrogate HG1 5NX	Mary Moss	

ORGANISATION	ADDRESS	CONTACT	RESPONSE RECEIVED
Keighley Friends of the Earth	c/o 1, Far Scar Top, Colne Road, Stanbury, Keighley, West Yorkshire, BD22 0JR	Jane Howie Co-ordinator	
Kirklees Metropolitan Council	Environmental Services West Riding House Manchester Road Huddersfield HD1 3HH	Heather Brough	
Leeds City Council	Department of Planning and Environment Selectapost 5 Merrion House 110 Merrion Centre Leeds LS2 8SH	Lucy McLellan Contaminated Land Officer Jon Tubby Environment Dept.	
MAFF	(Farming and Rural Conservation Agency) Government Buildings Otley Road Lawnswood Leeds LS16 5QT	Geoffrey Tatman	
Pendle District Council	Environmental Services Town Hall Albert Road Colne Lancashire BB8 0AQ	Bryden Simpson	
The Regional Assembly for Yorkshire and Humberside	County Hall, Bond Street, Wakefield WF1 2QW.		

ORGANISATION	ADDRESS	CONTACT	RESPONSE RECEIVED
West Yorkshire Archaeology Service	Advisory Services, County Sites and Monuments Record, Registry of Deeds, Newstead Road Wakefield WF1 2DE	Helen Gomersall	Yes
Yorkshire Forward	Victoria House 2 Victoria Place Leeds LS11 5AE		

7.5 Definition of Receptors and Description of Harm Regarded as Significant.

From Circular 2/2000: Table A – Categories of Significant Harm.

TABLE A - CATEGORIES OF SIGNIFICANT HARM

	TYPE OF RECEPTOR	DESCRIPTION OF HARM TO THAT TYPE OF RECEPTOR THAT IS TO BE REGARDED AS SIGNIFICANT HARM
1	Human beings	Death, disease, serious injury, genetic mutation, birth defects or the impairment of reproductive functions. For these purposes, disease is to be taken to mean an unhealthy condition of the body or a part of it and can include, for example, cancer, liver dysfunction or extensive skin ailments. Mental dysfunction is included only insofar as it is attributable to the effects of a pollutant on the body of the person concerned. In this Chapter, this description of significant harm is referred to as a "human health effect".
2	Any ecological system, or living organism forming part of such a system, within a location which is: • an area notified as an area of special scientific interest under section 28 of the Wildlife and Countryside Act 1981; • any land declared a national nature reserve under section 35 of that Act; • any area designated as a marine nature reserve under section 36 of that Act; • an area of special protection for birds, established under section 3 of that Act; • any European Site within the meaning of regulation 10 of the Conservation (Natural Habitats etc) Regulations 1994 (ie Special Areas of Conservation and Special Protection Areas); • any candidate Special Areas of Conservation or potential Special Protection Areas given equivalent protection; • any habitat or site afforded	For any protected location: harm which results in an irreversible adverse change, or in some other substantial adverse change, in the functioning of the ecological system within any substantial part of that location; or harm which affects any species of special interest within that location and which endangers the long-term maintenance of the population of that species at that location. In addition, in the case of a protected location which is a European Site (or a candidate Special Area of Conservation or a potential Special Protection Area), harm which is incompatible with the favourable conservation status of natural habitats at that location or species typically found there. In determining what constitutes such harm, the local authority should have regard to the advice of English Nature and to the requirements of the Conservation (Natural Habitats etc) Regulations 1994. In this Chapter, this description of significant harm is referred to as an "ecological system effect".

	TYPE OF RECEPTOR	DESCRIPTION OF HARM TO THAT TYPE OF RECEPTOR THAT IS TO BE REGARDED AS SIGNIFICANT HARM
	policy protection under paragraph 13 of Planning Policy Guidance Note 9 (PPG9) on nature conservation (ie candidate Special Areas of Conservation, potential Special Protection Areas and listed Ramsar sites); or • any nature reserve established under section 21 of the National Parks and Access to the Countryside Act 1949.	
3	Property in the form of: • crops, including timber; • produce grown domestically, or on allotments, for consumption; • livestock; • other owned or domesticated animals; • wild animals which are the subject of shooting or fishing rights.	For crops, a substantial diminution in yield or other substantial loss in their value resulting from death, disease or other physical damage. For domestic pets, death, serious disease or serious physical damage. For other property in this category, a substantial loss in its value resulting from death, disease or other serious physical damage. The local authority should regard a substantial loss in value as occurring only when a substantial proportion of the animals or crops are dead or otherwise no longer fit for their intended purpose. Food should be regarded as being no longer fit for purpose when it fails to comply with the provisions of the Food Safety Act 1990. Where a diminution in yield or loss in value is caused by a pollutant linkage, a 20% diminution or loss should be regarded as a benchmark for what constitutes a substantial diminution or loss. In this Chapter, this description of significant harm is referred to as an "animal or crop effect".
4	Property in the form of buildings. For this purpose, "building" means any structure or erection, and any part of a building including any part below ground level, but does not include plant or machinery comprised in a building.	Structural failure, substantial damage or substantial interference with any right of occupation. For this purpose, the local authority should regard substantial damage or substantial interference as occurring when any part of the building ceases to be capable of being used for the purpose for which it is or was intended. Additionally, in the case of a scheduled Ancient Monument, substantial damage

	TYPE OF RECEPTOR	**DESCRIPTION OF HARM TO THAT TYPE OF RECEPTOR THAT IS TO BE REGARDED AS SIGNIFICANT HARM**
		should be regarded as occurring when the damage significantly impairs the historic, architectural, traditional, artistic or archaeological interest by reason of which the monument was scheduled. In this Chapter, this description of significant harm is referred to as a "building effect".