

**London Borough
of Harrow
Environmental
Health Services**

**Environmental
Protection Section**

**CONTAMINATED
LAND STRATEGY**



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Executive Summary

Introduction

Part IIA of the Environmental Protection Act 1990 came into force on 1st April 2000 and introduced a new regime for the identification and remediation of contaminated land.

It requires local authorities to inspect their areas for contaminated land and to submit to the DETR a strategy detailing how this will be accomplished. The strategy has been produced by the Environmental Protection Section of the Environmental Health Services Division following consultation with all relevant/interested parties.

The Contaminated Land Strategy

The Strategy sets out the London Borough of Harrow's intended strategic approach to the new legislation and the requirement to inspect for contaminated land in its area. It outlines this authority's aims, objectives and priorities for inspection, identification and remediation of contaminated land. The strategy will consist of 4 basic stages to be implemented over a set time period as set out below.

- ❖ **Stage 1** - will involve the running of data handling and risk modelling systems for the identification and risk categorisation of sources, receptors and pathways.
- ❖ **Stage 2** - will involve a more detail study (desktop) of the areas highlighted in Stage 1.
- ❖ **Stage 3** - will involve site investigations of those areas highlighted in Stage 2 and where a pollution linkage exists.
- ❖ **Stage 4** - will involve the determination of the land as contaminated and action will be taken to ensure the land is made safe.

It is important to note that contamination does not necessarily mean contaminated. For land to be designated as contaminated, it will be necessary to identify a source-pathway-receptor scenario and the determination of significant harm or the possibility of significant harm. Pollution of controlled waters also plays a part in this designation.

Information

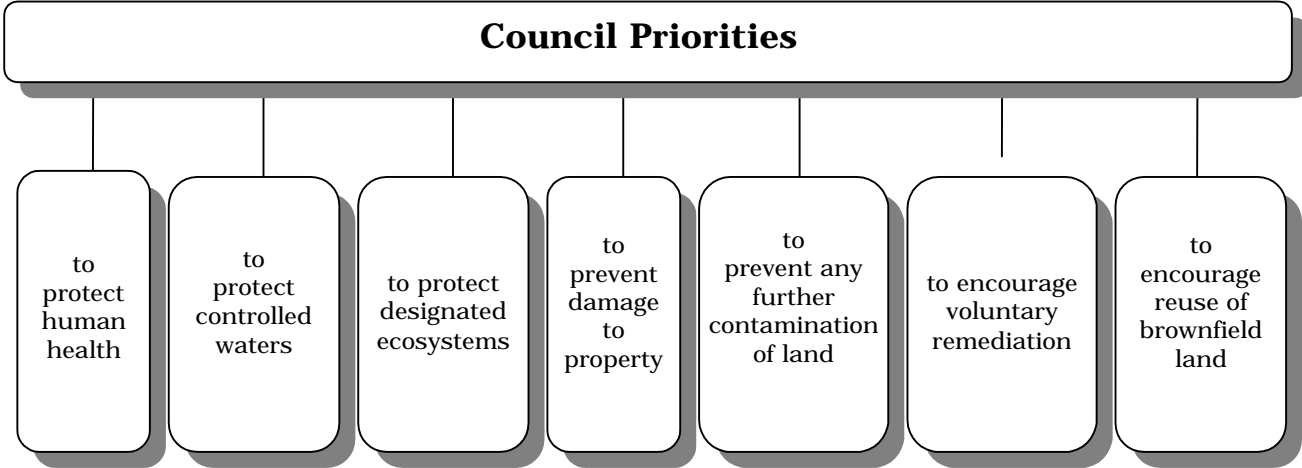
A GIS (geographical information system) will be incorporated into the strategy, which will enable computerised data handling and risk modelling. All available datasets relating to source, receptors and pathways from external and internal sources will be incorporated into this system. Based on this GIS system, land where contamination may exist can be determined and a risk category applied to them. Further, more detailed risk assessment work will be carried out on the land identified. It is intended at present that this will be done in house, but some consultancy services may be required at a later date for the more detailed assessment work e.g. soil sampling and analysis.

It is likely that the inspection programme for contaminated land will take 5 years commencing in September 2001. This programme and time restraint will be reviewed/reassessed within 1 year of the adoption of the strategy.

The Local Authority

The Council's priorities in dealing with contaminated land will be: -

Diagram 1 – Council priorities



It is intended to initially deal with high-risk areas, controlled waters and Council owned land. Areas identified during the Stage 1 assessment of sources, pathways and receptors will be continuously risk assessed and priorities updated and resources targeted at the areas of greatest need.

The authority has a duty under Part IIA to ensure the remediation of contaminated land and to ensure that the land is 'suitable for use'. This can be by voluntary means or through remediation notices.

In previous years, the main control for contaminated land has been via the planning process and this is unlikely to change following the introduction of Part IIA. Planning Services will still take the lead, particularly at the planning application stage and the Environmental Health Divisions will continue to assist in this process.

With respect to existing sites and previously redeveloped sites, the Environmental Health Division will take the lead in partnership with Planning Services and others in determining and risk assessing land, service of remediation notices and ensuring that the remediation of contaminated land is carried out.

Partnerships with other organisations and interested parties

The Council will work in partnership with all organisations and interested parties with respect to the application of this new legislation and Strategy.

There will continue to be a close liaison with the Environment Agency, which will be a two way process.

The Council is required to notify the Environment Agency with respect to Controlled Waters and so called 'Special Sites' in relation to contaminated land, for which the Environment Agency is the enforcing authority. In addition, the Council will provide regular information to assist them with respect to their provision of a National Report on contaminated land. The Environment Agency in turn will provide advice and guidance to the Council with respect to its duties under the contaminated land regime.

Public Register

The Council will maintain a register at the Civic Centre in Harrow which is intended to act as a full and permanent record of all regulatory action taken by the enforcing authority in respect of the remediation of contaminated land, and will include information about the condition of the land.

It is intended that the strategy, public register and information held, will generally be open to the public and others. This will be subject to matters of confidentiality e.g. information of a personal or commercially sensitive nature.

Chapter 1 - Introduction

This chapter provides a general overview of the regime, the legislation and guidance available, central and local government policy with respect to sustainable development and the way in which the regime/strategy will be implemented in liaison and consultation with others.

1.1 Part IIA of the Environmental Protection Act 1990

Part IIA of the Environmental Protection Act 1990 came into force on 1st April 2000 and established a statutory regime for the identification and remediation of contaminated land.

Under Part IIA, local authorities have a duty to “cause its area to be inspected from time to time for the purpose of identifying contaminated land” (section 78B)

The Secretary of State has issued Statutory Guidance to local authorities on the implementation of Part IIA in England. Part B of this Statutory Guidance requires local authorities to take a ‘strategic approach’ to inspecting their areas and to publish a written document by July 2001, detailing how it intends to do this.

This document sets out the Council’s strategic approach to the introduction of the legislation and the requirement to inspect for contaminated land in its area. It outlines this authority’s aims, objectives and priorities for inspection, identification and remediation of contaminated land.

1.2 National Policy

1.2.1 Sustainable Development

In his foreword to ‘A better quality of life: A strategy for sustainable development for the UK’ (May 1999), the Prime Minister, the Rt. Hon Tony Blair said:

“ The last 100 years have seen a massive increase in the wealth of this country and the well-being of its people. But focusing solely on economic growth risks ignoring the impact – both good and bad – on people and on the environment. Had we taken account of these links in our decision making, we might have reduced or avoided costs such as contaminated land and social exclusion.”

1.2.2 Preventing New Contamination:

It is most important that new contamination of land is avoided and this can be achieved by the implementation of certain regimes, the most significant being: -

Integrated Pollution Control (IPC)
Pollution Prevention and Control (PPC)
Waste Management Licensing

1.2.3 Our inherited legacy of contaminated land:

The Council has to deal with a substantial legacy of land, which is already contaminated by e.g. previous industrial and waste disposal activities. It is not known in detail how much land is contaminated. This can only be found out through wide ranging and detailed site investigations and risk assessments. This will also be critically dependent on the definition used to establish which land is “contaminated”.

Box 1.1 Government’s objectives - contaminated land: -

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

These objectives underlie the ‘suitable for use’ approach to the remediation of contaminated land, which is considered the most sustainable option.

1.3 Local Policies

1.3.1 Harrow Corporate Strategy

The Council has adopted and implemented the principles and values outlined in Box 1.2, some of which are relevant to contaminated land.

Box 1.2 LB Harrow’s Strategic Principles and Values with respect to Contaminated land: -

Customer Care	- Combating Disadvantage
Quality Provider	- Sustainability
Public Services Values	- Accountability
Participation	- Management and Workforce Partnership

Harrow also formed the Harrow Partnership in 1998 which seeks to form strong links between all Harrows stakeholders to improve the quality of life in the borough. A number of these themes are relevant to contaminated land and in particular the Environment and Economy theme.

The Council has developed service priorities and some of these priorities are relevant to the strategy and the following policies have been endorsed: -

- ❖ **To promote the health, safety, welfare and environment of those living in, working or visiting Harrow.**
- ❖ **Support the development of Local Agenda 21 programme.**

These values assist the Council in implementing the commitments to its Environment Statement shown in Box 1.3.

Box 1.3 The Councils Environment Statement: -

‘Harrow Council is committed to continuously improving the quality of life for the people of Harrow through its role as a community leader; and as an employer and service provider’

1.3.2 Agenda 21

Agenda 21 is a partnership of community groups, individuals, schools, businesses and the Council committed to making Harrow a more sustainable place to live and work. Sustainable development meets the current needs of Harrow without damaging the environment for future generations and this is in line with the Government strategy with respect to contaminated land.

1.3.3 Environmental Health Division Service Plan

The Council’s principles and values have been incorporated and have a bearing on the development of the Environmental Health Division Service Plan. Specific aims have been developed as a result which have a relevance to contaminated land. These are:-

- ❖ To provide a service for the investigation and monitoring of complaints regarding environmental protection matters and taking appropriate enforcement action.
- ❖ To consult with our users to ensure that our service develops with local priorities and needs.
- ❖ To identify potentially contaminated areas of land and to ensure where possible that control measures are introduced to prevent those areas becoming a danger to the health of the general public

1.3.4 Environmental Services Department Service Plan

The Service Plan has the following specific aim: -

❖ **To use the Councils planning powers to actively manage the development of the borough in support of the Council's Strategy.**

The Council's land use policies are contained in the Harrow Unitary Development Plan (HUDP) originally adopted in 1994 and which is being reviewed and updated. The 1st deposit for the new HUDP was in June 2001. Two specific policies cover contaminated land namely, **EP 23** - Contaminated Land and **EP 22** - Vacant and Disused Land and Buildings. (See Box 2.5) These will be considered in the light of objections/comments received.

1.3.5 Best value

Harrow is a Best Value Pilot Authority and in the past has delivered well on the Best Value programme. In the light of the Council's experience with Best Value, a new and innovative approach to Best Value reviews has been taken. The Council is now reviewing Best Value across services, rather than a functional approach.

These cross cutting reviews adopt a topic focussed process and the local authority will be specifically looking at the environment as part of this program. There is a five year program for the completion of the 16 topics that have been identified.

1.3.5.1 Consultation and involvement of community groups and business

The Council will as far as is reasonably practicable, raise awareness amongst residents, the public, businesses and other interested parties of the requirements of the Council with respect to the legislation. The Contaminated Land Strategy will be made available to the public through its various departments e.g. Planning and Environmental Health Services. Information about the strategy will be available on the Council's website.

1.3.5.2 External Liaison and consultation

Consultation has been carried out with external organisations before preparation and implementation of this strategy. There are both statutory and non-statutory consultees. These are shown in Box 5.1. Individual contacts will be identified in each body and a key contact, the Contaminated Land Officer, will be nominated within the Council with respect to this strategy. During the review of the Strategy in the 1st year following adoption, further consultation will be conducted.

1.3.6 Development of Strategy

The Council is required to take a strategic approach to inspecting its area for contamination. See Box 3.3.

This strategy has been developed to meet this requirement and lays down the intentions of the Council and details how it intends to fulfil its requirements under Part IIA of the Environment Act 1995.

The Environmental Protection Team of Environmental Health has prepared the Strategy with assistance and advice from internal and external agencies.

There are 4 stages to the strategy and these are detailed in Box 3.4. The objectives of the contaminated land strategy are listed in the chapter on Harrows Strategy in Box 3.1.

1.4 Legislation/Guidance

The Environment Act 1995 brings into force Part IIA of the Environmental Protection Act 1990. Part IIA was inserted into the 1990 Act by Section 57 of the 1995 Act. Regulations were made under this Act and are known as the Contaminated Land (England) Regulations 2000. Guidance was also produced in the form of DETR Circular 02/2000. This body of legislation and guidance will be known hereafter as Part IIA in this document.

1.4.1 Identification of Contaminated Land

The Council has a duty to cause its area to be inspected from time to time. In doing so it has to act in accordance with the statutory guidance issued by the Secretary of State.

Inspection may include:

- ❖ The collation and assessment of documentary information, or other information from other bodies,
- ❖ A visit to a particular area for the purposes of visual inspection and, in some cases, limited sampling
- ❖ Intrusive investigation of land

1.4.2 Definitions

Contaminated land is defined under the Act in section 78A(2) for the purposes 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 a **SIGNIFICANT POSSIBILITY** of such harm being caused; or

“(b) **POLLUTION OF CONTROLLED WATERS** is being, or is likely to be, caused.”

This definition reflects the role of the Part IIA regime, which is to enable the identification and remediation of land on which contamination is causing unacceptable risks to human health or the wider environment. But it does not cover any harm or pollution of controlled waters, which is attributable to any radioactivity, possessed by any substance. **It also does not necessarily include all land where contamination is present, even though such contamination may be relevant in the context of other regimes.** For example, contamination which might cause risks in the context of a new development of land could be a “material planning consideration” under the Town and Country Planning Act 1990.

1.5 Risk Assessment and Pollution Linkage

The definition of contaminated land is based upon the principles of risk assessment. Risk is defined as a combination of the probability or frequency of occurrence of a defined hazard and the magnitude of the consequences.

Box 1.4 Risk Scenario:

POLLUTION SOURCE ⇨ PATHWAY ⇨ RECEPTOR

A pollution linkage (pathway) is necessary i.e. between the pollutant source and receptor, as well as significant harm being caused or there is a significant possibility of such harm being caused. See Box 1.4.

1.6 Remediation of Contaminated Land

There are principally four stages to remediation of land designated as contaminated. These are detailed in box 1.5.

Box 1.5 Stages to Remediation:

1. Establish who is the 'appropriate person' to be held responsible for the remediation (or clean up) of the land
2. Determine the level of remediation (cleanup) required and ensure that this occurs through:
 - Voluntary agreement
 - Service of remediation notices
 - Remediation (cleanup) carried out by Local authority
3. Determination of who should bear the cost and in what proportion
4. Record certain information about any regulatory action on the Public Register

1.7 Special Sites and Controlled Waters

The Council is required to notify the Environment Agency with respect to Controlled Waters and so called 'Special Sites as described in the Contaminated Land (England) Regulations 2000 in relation to contaminated land, for which the Agency is likely to be the enforcing authority. This will be carried out in full consultation and with the agreement of the Environment Agency.

Chapter 2 - Characteristics of the LB Harrow

This chapter provides a brief history of Harrow, its geographical location and geological make up. It also provides information on local authority owned land as well as various other types of sensitive receptors situated within the borough.

It gives an insight into the developmental history and controls within the area as well as current Planning and other controls and the new Harrow Unitary Development Plan.

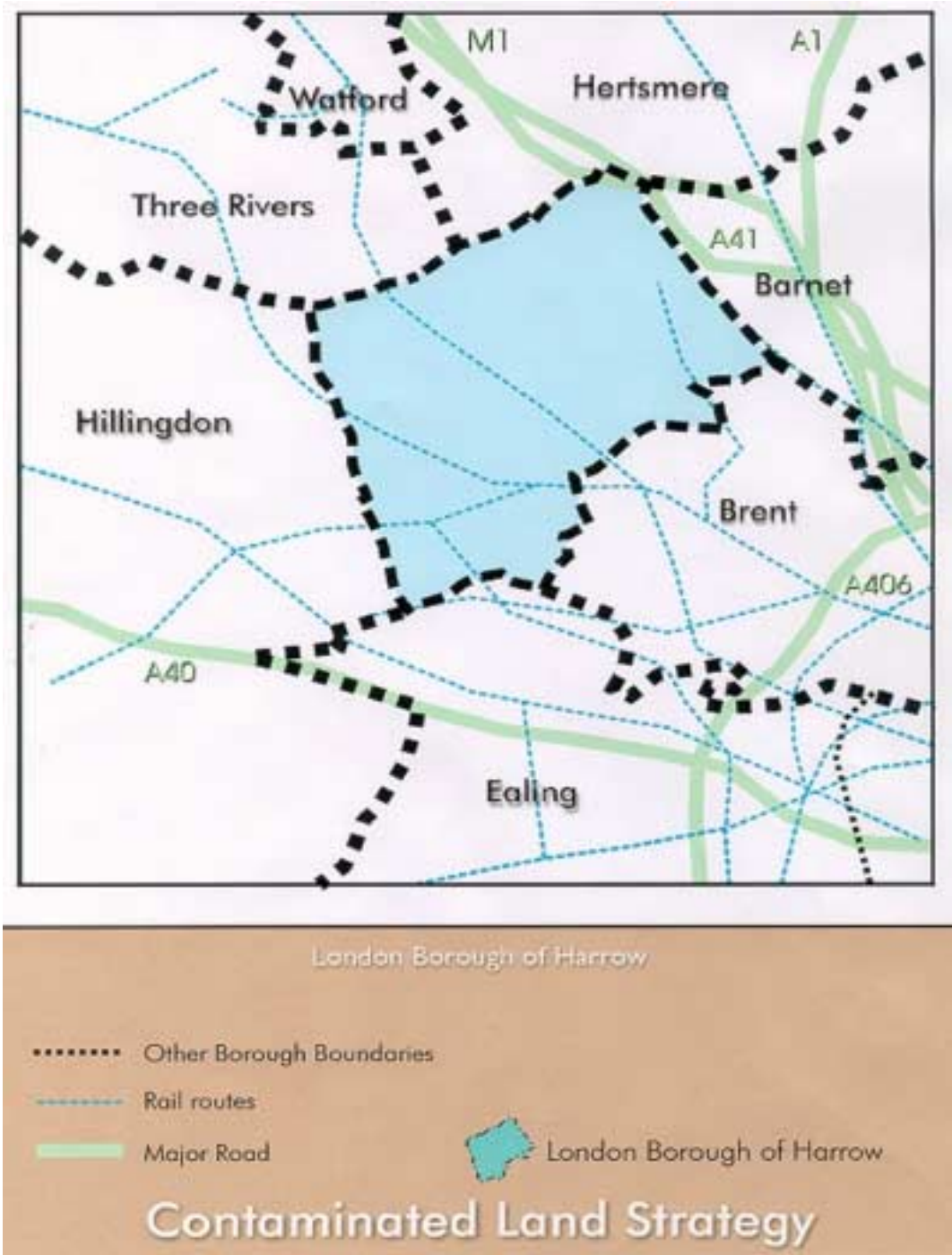
Map 1 - L.B. Borough



2.1 History of Harrow

2.1.1 Geographical Location

The London Borough of Harrow is an outer London Borough situated to the Northwest of London and is approximately 12 miles from Central London. It covers an area of 19 square miles. It is flanked by the LB Hillingdon to the west, and Barnet to the east. The dividing line with the latter being the A5 (Edgware Rd) originally laid down by the Romans and formally known as Watling Street. Harrow is divided from Hertfordshire to the North by a boundary line, which has remained more or less unchanged since the Middle Ages. In the South lie the London Boroughs of Ealing and Brent. The M1 motorway skirts the north-eastern edge of the borough.



2.1.2 Brief Description/History

The London Borough of Harrow covers an area of some 5046 hectares (19 square miles). The following map shows the makeup of the area.

Map 3 - Wards in the LB Harrow



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Harrow is mainly residential in nature with around 82,000 dwellings and 214,900 residents. The borough has excellent transport links with 5 motorways (M1, M3, M4, M25 and M40) within easy reach as well as over ground and underground railway systems.

There is a stretch of green belt to the north of the borough, which serves to separate Harrow from Watford's suburban sprawl and the expanded village of Bushey. Towards the south, Harrow becomes increasingly urbanised, apart from the focus of the district, Harrow-on-the Hill.

Parts of Harrow were already settled in Anglo-Saxon times and the borough contains several old village settlements, notably Harrow-on-the Hill and Pinner.

The most significant period of development began with the building of the London to Birmingham railway in the 1830's. This prompted the industrial development of Wealdstone.

At the turn of the century the Metropolitan railway arrived bringing an even more intense period of development and giving the name 'Metroland' to parts of the borough, as it linked many of the areas villages.

The inter-war years heralded a period of rapid growth for most of the borough and it was during this period that most of the existing housing was built with a low density character and open spaces. However, continuing developmental pressures, particularly for residential development, have been a feature of the last 50 years and will continue in the light of anticipated population growth.

2.2 Local Authority Land Ownership

Box 2.1 summarises the portfolio of property held by the LB Harrow.

Box 2.1 LB Harrow Property Portfolio	
Education: (Schools, libraries, youth/leisure centres, arts/museums, teachers centres, playing fields, etc.)	106
Environmental Services: (Car parks, parks & open spaces, allotments, cemeteries, amenity sites, park lodges, public conveniences, etc.)	137
Housing: (Residential units, freehold/leased properties, travellers' site, community centres, retail units etc)	7043
Social Services: (Day care, residential care and support living, area offices' etc)	33
Non-operational portfolio:	101
Other	8

The authority is also responsible for 480 km of highway and 960 km of footways.

2.3 Current Land Use Characteristics

Harrow has developed as an attractive green borough, mainly residential in nature with 82000 dwellings and nearly 215000 residents. Manufacturing and light industry are found the Harrow area but the majority of businesses in Harrow (96%) are small.

Some 1070 hectares (21%) of the Harrow area is given over to green spaces mainly in the north, but there are few areas of wildlife habitat in the heavily built up south. These areas consist mainly of neutral grassland and woodland, farmland, public open space and Metropolitan Open Land. Stanmore golf course and the lower slopes of Harrow on the Hill represent the only areas of Metropolitan Open land in the borough. Public Open Spaces are more widespread covering over 400 hectares. There are many non-statutory sites of importance for nature conservation in Harrow which have been mapped and described by the London Ecology Unit (now subsumed into Policy and Partnerships, Greater London Authority).

99% of the development in this borough is on previously used land (so called brownfield sites). Box 2.2 summarises the land uses of the borough by type.

Box 2.2 London Borough of Harrow Composition:-

Area of borough	5046 ha
Agricultural land	444 ha
Recreational/Amenity areas (incl. cemeteries & allotments)	881 ha
Commercial/Government Buildings (incl. shops, PH's etc)	234 ha
Industrial Use	34 ha
Educational Establishments (incl. playing fields)	284 ha
Railway Land	90 ha

2.4 Protected Locations

2.4.1 SSSIs

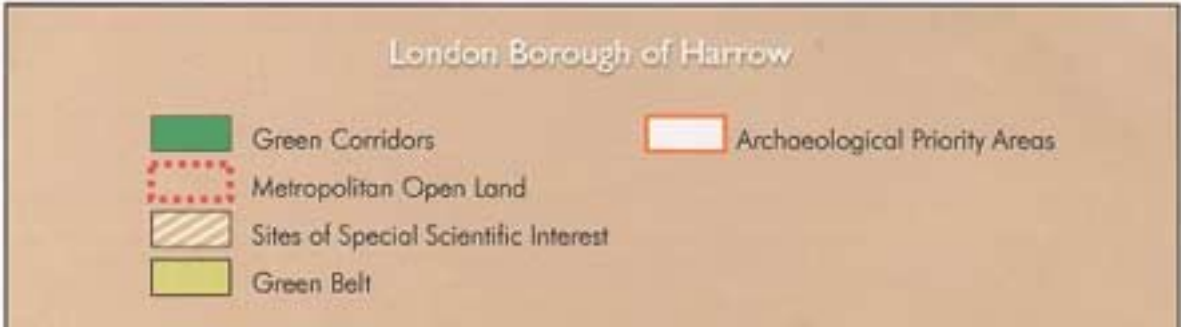
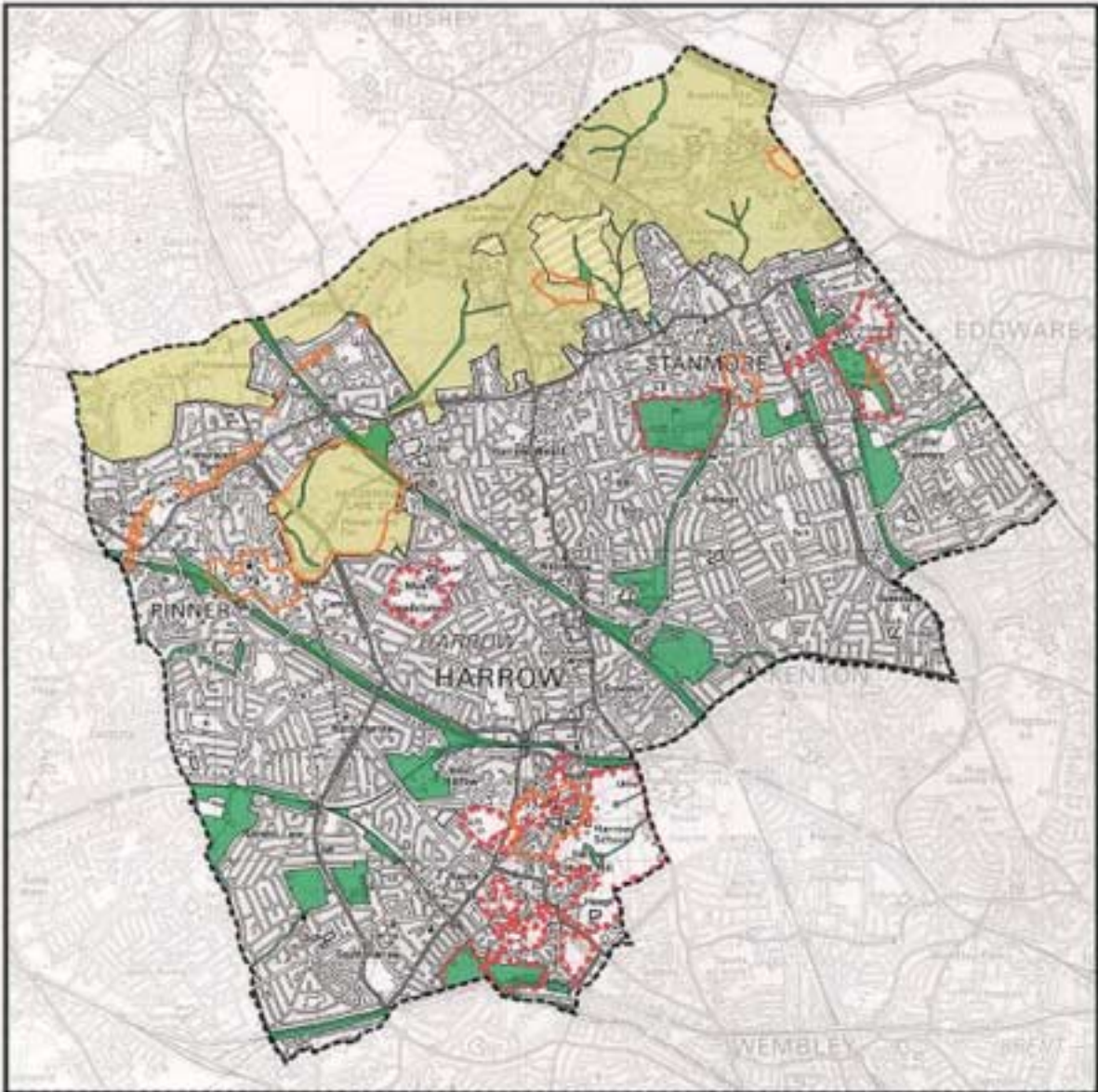
Sites of Special Scientific Interest (SSSI) support many characteristic, rare and endangered species, habitats and earth heritage features.

There are 2 SSSIs in the London Borough of Harrow. One was formerly known as Stanmore and Harrow Weald Common, although the bulk of Harrow Weald Common was denotified in 1987 except for one small area of geological importance, now known as Harrow Weald SSSI. The other is Bentley Priory, which is an area of vegetative importance.

2.4.2 Local Nature Reserves (LNRs)

Local nature reserves are declared under the National Parks and Access to the Countryside Act 1949. Harrow Council has three declared Local Nature Reserves: Bentley Priors, Stanmore Common and Stanmore Country Park. Three other areas are under consideration for declaration as LNRs and these are: Pear Wood, Belmont Railway Line and Roxborough Rough.

Map 4 - Designation of Land



2.4.3 Lakes and Ponds

There are no large expanses of water in Harrow, but Harrow is known to have one of the highest densities of ponds in the capital at 16 per square kilometre. Some of the biggest are Canons Lake - Edgware, Summerhouse Lake - Bentley Priory as well as Squirrels Lake and Serpentine Lake in Harrow School grounds.

2.4.4 Main River and Watercourses

There are 6 watercourses classified as 'Main River' in this borough which are part open and part culverted. There are also 11 ordinary watercourses, which are also part open and part culverted. These are listed in Box 2.3

Box 2.3 Main Rivers and Ordinary Watercourses

Main Rivers: -	Ordinary Watercourses:-
Edgware Brook	River Colne (flowing north from borough)
River Pinn	Costons Brook
Roxbourne Brook	Edgware Brook
Wealdstone Brook	Kenton Brook
Wealdstone Brook	River Pinn
Woodridings Brook	Roxbourne Brook
Yeading Brook	Roxeth Recreation Ground
	Smarts Brook
	Wealdstone Brook
	Woodridings Brook
	Yeading Brook

2.4.5 Statutory Reservoirs

There are four statutory reservoirs in the London Borough of Harrow, only one of which is for drinking water. These are :-

- ❖ Harrow on the Hill (drinking water)
- ❖ Summerhouse - Bentley Priory
- ❖ Severn Acre - Edgware
- ❖ George V - Pinner

2.4.6 Water Supplies

Three Valleys Water is the company that supplies drinking water in this area. There is one drinking water reservoir situated in Harrow on the Hill.

There are no known private water supplies for domestic purposes, although it is known that a number of wells exist. There are three private water supplies for commercial/industrial purposes at Kodak Ltd.

2.5 Archaeological Features:

2.5.1 Ancient Monuments

Scheduled Ancient Monuments in Harrow make a major contribution to the Borough's Heritage. They come under the jurisdiction of the Department of National Heritage who are advised by English Nature, but are also protected by planning controls.

There are 9 Scheduled Ancient Monuments, these are listed in box 2.4 below.

Box 2.4 Ancient Monuments	
Grim's Ditch:	-Section Northeast of Oxhey Lane
Grim's Ditch:	-Section North of Blythwood House
Grim's Ditch:	-Four linear sections between Uxbridge Road and Oxhey Lane
Pear Wood:	-Linear earthworks.
Brockley Hill:	-Obelisk
Brockley Hill:	-Romano-British pottery and settlement
Headstone Manor:	-Moated site
Pinner Hill:	-Ice house
Pinner Deer Park, Pinner Park Farm:	-Park Boundary Pale

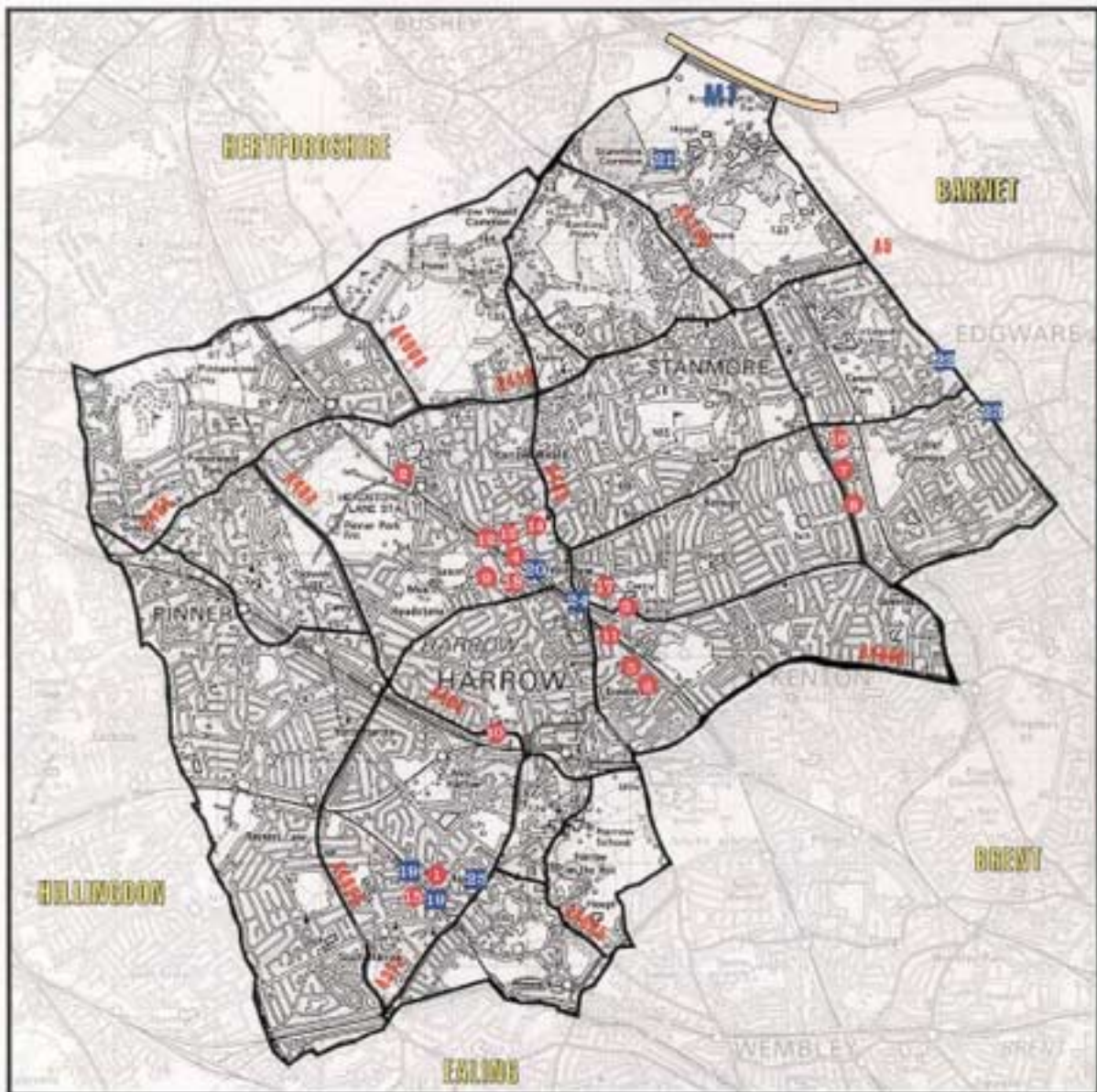
2.5.2 Sites of Archaeological Interest

Because of its geology and topography, Harrow was especially attractive for early settlements. Many sites have been identified and there have been numerous archaeological finds. The Council does have regard to advice contained in PPG 16 Archaeology and Planning (Nov 1990) in considering any proposals affecting sites of archaeological interest.

2.6 Industrial History of Harrow

Manufacturing and light industry are found around the Harrow area. The largest employer is Kodak. The company opened its factory in 1890 and it still remains the largest of Eastman Kodak's plants in Britain.

Map 5 – Employment areas in Harrow



KEY		
● Industrial and Business Use Areas	11. Rosslyn Crescent / Phoenix Industrial Estate	21. BAE Systems, Stanmore
1. Brember Road Industrial Estate	12. Barratt Way Industrial Estate	22. Ballards Mews, High St. Edgware
2. Chantry Place, Headstone Lane	13. Whitefriars Industrial Estate	23. Spring Villa Pk., High St. Edgware
3. Christchurch Industrial Estate	14. Colart, Whitefriars Ave	24. Masons Ave & Herge Road
4. Tudor Enterprise Park, Tudor Road	15. 20-60 The Arches, S. Harrow	25. Northolt Road, S. Harrow
5. Crystal Centre, Elmgrove Road	16. Government Offices, Honeypot Lane	
6. Hawthorn Centre, Elmgrove Road	17. Palmerston Road & Oxford Road	
7. Parr Road Garland Road Ind. Estate	18. Waverley Industrial Estate	
8. Delston Gardens & Honeypot Lane		 Main Roads
9. Kodak Works		 Motorway
10. Neptune Road Industrial Estate	19. 9-17 & 62-73 The Arches	
	20. British Rail Goods Yard, Cecil Road	

Contaminated Land Strategy

2.7 Geology/Hydrogeology of Harrow

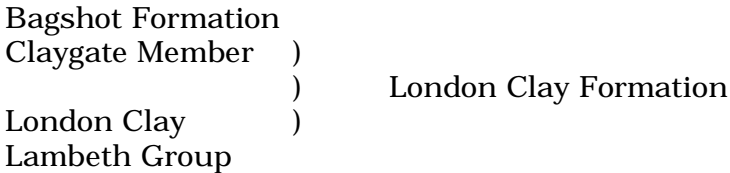
2.7.1 Regional Geology

The Borough lies in the northern-western part of the London Basin, an elongated depositional basin that stretches into the southern North Sea, which is constrained in the north by the Chiltern Hills, and in the south by the North Downs. North of the River Thames, the rocks within the London Basin dip gently towards the south.

2.7.2 Solid Geology

The solid rocks of the London Basin are of early Tertiary age and were laid down as sediments between 65 million and 37 million years ago.

A simplified relationship of the geological units within the Borough is shown below:



The oldest deposits are those of the Lambeth Group, formerly known as the “Woolwich and Reading Beds”. These are of variable lithology, and include bedded gravelly sands at the base, passing upwards into laminated clays and silts, and silts and clays with shelly beds. These deposits were laid down in a shallow marine, possibly estuarine environment. Locally, the deposits may contain calcareous cement that creates hard layers in otherwise loose sediments. The thickness of the Lambeth Group is variable, but within the Borough the thickness is 12m to 15m thinning westwards.

The London Clay Formation underlies most of the Borough. This Formation is predominantly bluish grey clay with minor amounts of silt and fine-grained sand, usually in isolated lenses. There are also sporadic cementstone concretions known as septarian nodules. When exposed to surface weathering, the colour becomes brownish grey. The total thickness of the London Clay is about 100m to 125m, and this thickness is to be expected across much of the Borough. The London Clay was laid down in a deep water marine environment.

Across the north-east and in the south of the Borough, are exposed outliers of the Claygate Member of the London Clay Formation. Occurring at the top of the London Clay Formation, it is no more than 16m thick and is composed of fine-grained sands, silts and firm to stiff clays. This geological unit reflects a shallowing marine environment. The colour is typically reddish and yellow brown near the surface due to the effects of weathering and water movement through the more sandy horizons.

The Bagshot Formation is found only in the south of the Borough. Up to 20m thick, the Formation is predominantly composed of horizontally bedded orange, pale yellow, buff and white quartzose sands with occasional thin gravel beds and lenses of silt and clay, and represents deposition in a shallow water marine environment.

2.7.3 Drift Geology

The oldest drift deposits within the Borough are those of the Stanmore Gravel which is found across the northern half of the Borough. This deposit is composed predominantly of sand and gravel, but with occasional clayey units. Within the Borough, the Stanmore Gravel may be up to 4m thick in the area of greatest outcrop.

The Black Park Gravel occurs as a small isolated patch on the south-western boundary of the Borough. Up to 3m thick, it is predominantly sand and gravel with occasional clay and silt lenses.

The most recent deposits are the alluvial deposits in the Stanmore Marshes and in the floodplains of the River Pinn and Yeading Brook draining westwards, and the Wealdstone brook draining southwards through Kenton. These deposits are of variable thickness, thickening both towards the middle of their valleys and downstream. Dominantly silt and sand, these alluvium deposits will also contain clay and peat horizons.

The Stanmore Gravels and Black Park Gravels form part of the major/minor aquifer system and are considered as controlled waters.

2.7.4 Areas of Naturally Enriched Soils

West London soils are known to have naturally raised levels of arsenic content, commonly in the region of 4-5 times above the threshold value given in the ICRCCL guidelines.

2.8 Known Information on Contaminated Land

Past history of contaminated land, remediation, etc in Environmental Health is held within paper and electronic files built up over a number of years. Planning and Building Control also hold records on sites within the borough.

The exact extent of land remediated in the borough is not at present known, but will become more apparent as the strategy is implemented. The main areas remediated in the borough have involved the redevelopment of old gas works sites for residential and commercial use. Some information is held with respect to landfill (mainly 'land levelling'). The borough has no known major landfill sites.

Most remediation to date has been carried out by private developers associated with the redevelopment of existing sites for housing and commercial use. This remediation has been mainly implemented through developments approved by the Council.

2.8.1 Development Control

Development within the borough is principally controlled by the planning regime.

This is not changed by Part IIA, and the application of land use planning policies will still be the principal method of control of redevelopment and land contamination.

Historically, Planning and Environmental Health have liaised/collaborated with respect to the development of contaminated land. This collaboration will be maintained and developed further under Part IIA, which is closely related to and will impact on this process.

2.8.2 Planning Guidelines

Planning Policy Guidance notes set out Government's policies on different aspects of planning. They must be taken into account by local planning authorities as they prepare their development plans and may be material to decisions in individual planning applications and appeals.

Revised planning guidelines are expected in the summer of 2002 on how to deal with contaminated land.

2.8.3 Planning Policy Guidance - PPG 23

Specific sections within PPG 23 relate to Contaminated Land. Within this, the 'suitable for use' approach is advised. The aims of the 'suitable for use' approach are where practicable:

- To deal with actual or perceived threats to health, safety or the environment;
- To keep or bring back such land into beneficial use; and so
- To minimise avoidable pressures on greenfield sites.

Introduction of Part IIA should produce a mechanism for checking that remediation previously carried out during redevelopment within the borough has been to a suitable standard in relation to the 'suitable for use' principle.

The Council's approach is to ensure that a site specific risk assessment is carried out as the basis for determining appropriate standards for remediation. Many methods of remediation are available, but the dig and dump and capping methods are the most common. This authority will encourage more sustainable alternatives where possible.

2.8.4 Harrow Unitary Development Plan (HUDP)

Harrow's UDP is currently under review. The revised deposit period for this document ended in May 2002 and the document will go forward to a Public Local Enquiry towards the end of 2002 or the beginning of 2003.

The current plan was adopted in 1994. Policies for land use in Harrow have been developed against a background of national planning policy guidance and circulars including Britain's Environmental Strategy, UK National Strategy on Sustainable Development (January 1994) together with regional guidance for South East England (RPG9, March 1994), LPAC 1994 Advice on Strategic Planning Guidance and Strategic Planning Guidance for London.

The future quality of life for Harrow's residents will be strongly influenced over the next 15 years by the changes which occur under the guidance of the land use policies and proposals. A variety of interrelated land uses must be accommodated in the borough, and development must be balanced with the need to protect or enhance the character of the borough as a whole, including residential localities within it, and to secure improvements to the economic base.

The plan provides the necessary framework for development control, setting out the policies and proposals for the development or use of buildings and land.

The issues relating to previously developed sites/contaminated sites have been dealt with through the planning process and Planning Policy Guidance (PPG 23).

The new HUDP will contain policies specifically relating to contaminated land and vacant and disused land and buildings. The relevant ones are listed in Box 2.5 below.

Box 2.5 HUDP Policies – Contaminated Land

Contaminated Land - EP 23

The Council, in determining a planning application for the development of contaminated land, or land suspected of being contaminated, or land adjacent to such sites, will require an investigation of the hazards posed and appropriate remedial measures. Such measures must ensure that the site is developed safely, in a manner that ensures the safety of occupiers and/or users, and does not have any adverse environmental impact. Planning permission will be conditional upon such measures being implemented to the satisfaction of the local planning authority.

Vacant and Disused Land and Buildings - EP 22

The Council will keep under review land brought forward for development together with vacant land and buildings to ensure they are put to appropriate and beneficial use, and will release land and buildings surplus to its requirements, whilst encouraging other land owners to do likewise. In reaching a decision about the future of land and buildings identified as surplus to Council requirements, the likely benefit to the community and environment of redevelopment proposals and use of land will be taken into account.

2.8.5 Building Control

In accordance with the Building Regulations 1991, Building Control officers are required to take account of contamination. They must assess what measures are required to safeguard against specific contaminants, which may have adverse effects on buildings, building materials and services. This includes taking account of corrosive/aggressive chemical contaminants present in site soils and groundwater's, but also the affects of landfill gas and radon. However, the regulations only require them to take account of where contamination may directly contact actual buildings i.e. footprint of the building and not the site as a whole.

2.8.6 Legal Services – Local Land Charges

Following the introduction of Part IIA and the requirement for each authority to keep a public register of its regulatory activity, a new question 16A (see box 2.6) referring to contaminated land has been included in the Enquiries to Local Authorities form CON 29 - See Appendix III. (last revised 1st October 2001).

Chapter 3 - Harrow's Strategy - Aims, Objectives, Priorities and Timescales

This section sets out the general and specific aims, objectives, priorities and timescales with respect to contaminated land, so as to meet the requirements of the statutory guidance. The Council's duties with respect to Part IIA, its commitments to achieving environmental improvement and sustainable development and its unique characteristics are outlined in other sections within this document.

3.1 Aims and Objectives

The Council's main aims and objectives are listed in box 3.1 and Appendix I.

Box 3.1 Main aims and objectives

- ❖ to comply with and implement the requirements of Part IIA of the Environmental Protection Act 1990 and associated legislation
- ❖ to raise awareness of and to promote understanding of land contamination issues
- ❖ to achieve environmental improvements
- ❖ to reduce the Council's impact on the environment
- ❖ to encourage regeneration and redevelopment
- ❖ to highlight the Council's arrangements and procedures.

3.2 Priorities

The main priorities of the Council are highlighted in box 3.2 below:-

Box 3.2 Council Priorities

1. To protect Human health
2. To protect Controlled Waters
3. To protect designated ecosystems
4. To prevent damage to property
5. To prevent any further contamination of land
6. To encourage voluntary remediation
7. To encourage reuse of brownfield land

This list is in priority order and in all cases, regard will be had to significance and likelihood as required by Statutory Guidance. There are also the general principles that apply which are shown in box 3.3 below.

Box 3.3 - Principles to a strategic approach

In carrying out its inspection duty under section 78B(1), the local authority should take a strategic approach to identification of land which merits detailed individual inspection. This approach should:

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

3.2.1 Priority of Inspection

Because of the history and industrial nature of the borough and that many of the likely contaminated sites e.g. gas works sites have already been redeveloped and/or remediated, it is considered that all land will be prioritised on the basis of environmental risk and this will include groundwater vulnerability. No areas will be highlighted for particular prioritisation at Stage 1 of the review.

It is not intended to separate out for priority inspection Council owned land, unless particular contamination and/or risk issues are raised or sites are in the process of being sold, etc. Council owned land would be included in the initial stages of the review alongside other land in the borough.

Once the initial stages of the review have been carried out, a clearer picture will have developed with respect to sources, pathways and receptors within the borough and pollution linkages.

Initial risk rating scores (to be determined) will have been applied at Stage 1 with the use of our risk model. It is likely that the risk rating will be further categorised into **Low - Medium - High** risk sites/areas, based on the **source, pathway, and receptor** scenario.

High risk rated sites/areas will then be prioritised for further investigation.

Obviously, should a major or similar incident occur within the borough e.g. chemical spillage or some other major incident whereby contamination of a site/land occurs, then there is scope within the strategy to allow for inclusion and prioritisation of such a site/land.

There are protocols already set up within the Council and local agencies to deal with major incidents, at least in the short term and it is likely that the longer term effect may come under the Part IIA procedures.

Any evidence of risk to controlled waters, source protection zones etc. from any source will be notified to the Environment Agency.

3.3 Program for Inspection

3.3.1 Stages of Strategy

There will be 4 basic stages to the strategy, to be implemented over a set time period. Each stage has been detailed in Chapter 4.5.1. A summary appears below in Box 3.4.

Box 3.4 Stages of Implementing Strategy	
Stage 1:	will involve the running of data handling and risk modelling system for the identification and risk categorisation of sources, receptors and pathways.
Stage 2:	will involve a more detail study (desktop) of the areas highlighted in Stage 1.
Stage 3:	will involve site investigations of those areas highlighted in Stage 2 and where a pollution linkage exists.
Stage 4:	will involve the determination of the land as contaminated with significant risk etc and action will be taken to ensure the land is made safe

3.3.2 Targets, Timescales and Milestones

Targets for achievements during the first five years of the strategy have been set. These are prioritised and divided on a year on year basis. These targets may be changed or the prioritisation altered at the first review date of the strategy. The targets to be achieved are laid out in Appendix II.

Timescales have also been set for the achievement of these targets and these are also laid out in Appendix II. These timescales are broad based, but will be refined as information becomes available and a clearer picture is gained of contamination and risk. It is not intended that these time restraints will be cast in stone. Flexibility is the key and should incidents occur or evidence come to light of **'significant harm or significant possibility of such harm, or pollution of controlled waters'** occurring, then these targets/timescales can be re-evaluated.

Milestones associated with the implementation of this Contaminated Land Strategy have also been set and are detailed in Box 3.5 below. These are general targets for achievement within a 5-year period. The targets will be spread out over the 5-year period and different parts of the strategy will be completed at different stages.

The relationship between these Targets, Timescales and Milestones is demonstrated in Appendix II.

Whilst the GIS based management system is being implemented and incorporated into the contaminated land work within the division, the existing paper based system of contaminated land management and risk assessment will be maintained. All enquiries will be dealt with on a risk prioritisation basis, determined by the lead officer on contaminated land.

Box 3.5 Milestones in Implementation of Strategy

1. Production and publication of the draft strategy
2. Obtaining a growth bid for the implementation of the contaminated land strategy
3. Obtain dedicated computer hardware, GIS based software and all available datasets to assist in the implementation of Part IIA
4. Obtain external expertise (consultants) to set up the GIS data base in Arcview and produce a risk based model for identification and risk categorisation of contaminated land
5. Setting up contact and liaison procedures internally and externally for information exchange.
6. Carry out the initial Stage 1 review of sources, receptors and pathways using the risk model within 1 year
7. Review the risk model rating and prioritisation of sites for more detailed inspection
8. Carry out 1st and subsequent yearly reviews of strategy in accordance with guidelines
9. Production of 1st and subsequent yearly reports to the Environment Agency with respect to contaminated land in Harrow
10. Identification of contaminated land
11. Service of remediation notices
12. Remediation of contaminated land
13. Setting up of public register
14. Review of timetables with respect to milestones to be achieved

Chapter 4 - Procedures and Information Management

4.1 Internal Management Arrangements

The Environmental Health Services Division, which comes within the Housing and Social Services Department, has the responsibility for implementing Part IIA of the Environmental Protection Act 1990.

The Environmental Protection Section of Environmental Health Services will carry out the day to day work and a Contaminated Land Officer will be designated to carry out implementation of the strategy. The Environmental Health Manager – Pollution and Residential is the service manager who will oversee the work within this section.

When land is to be designated as contaminated land under Part IIA, then the decision making process will expand to include the Chief Environmental Health Officer and will also incorporate guidance from the Councils Legal Services.

With respect to Council owned land, then the responsible Heads of Service and the Council's Environmental Services (Property and Development) Department will be kept fully informed at all stages of any review. They will also be included in any process by which council Land is to be designated as contaminated land under Part IIA.

Progress reports will be produced on the implementation of the strategy. These will be made available to the Members of the Council via the Cabinet.

4.2 Considering Local Authority Interests in Land

The Council has an interest in contamination issues, particularly with respect to their own lands being both sources and receptors. The Council will also have owned land in the past to which they may have an interest as past polluters or responsible persons.

Council land will therefore be included in the Stage 1 review (see 4.5). It is intended that an initial report will then be available on the state of Council owned land. This report will then be made available to the appropriate Heads of Departments, Property Services, Legal Services, etc. It is not considered necessary to involve Heads of Service and others at Stage 1 except to obtain data to assist in the carrying out of the initial review.

Contact and liaison will be regularly maintained with the Heads of Service, Property Services, etc for any land highlighted in Stage 1 as being possibly contaminated or at risk as a receptor. There will be a two way process of discussion, investigation and information exchange.

4.3 Information Collection and Management

During preparation of the strategy, research has been carried out to determine the extent and availability of information.

This information is to assist us in determining potential sources of contamination and receptors within the borough.

The introduction and implementation of the Contaminated Land Strategy, particularly with respect to the introduction of a GIS based data handling and risk modelling system, will also lead to the production and collation of a great deal of information both general and site specific and this information will need to be carefully managed.

4.3.1 Information Sources for Contaminated Land

Information will be gathered from a variety of sources to assist us in identifying potential and actual sources of contamination and receptors. Some internal and external sources of information are listed in box 4.1 below.

Box 4.1 Information Sources	
Internal Sources	External Sources
Environmental Health Services	Environment Agency
Planning Services	DTLR
Building Control	DEFRA
Property Services	FSA
Prescribed Processes Register	British Geological data
	English Nature -SSSI information
	English Heritage
	O/S maps
	Landmark Data
	Aerial Photography
	Historical information/Societies
	Trade Directories
	Developers/Landowners

4.3.2 Information on Receptors

Potentially sensitive receptors are listed in box 4.2. This information will be derived from sources of information identified in box 4.1.

Box 4.2 Potentially Sensitive Receptors	
RECEPTOR	LAND USE TYPES
Human beings	Allotments Residential with gardens Residential without gardens School/nurseries/playgroups Recreational/Parks, Playing fields, Open space Commercial/industrial
Ecological systems or living organisms forming part of a system within protected locations	SSSIs National Nature reserves Marine nature reserves Areas of special protection for birds European sites SAC SPAs Candidate SACs and SPAs Ramsar sites Nature reserves
Property in the form of buildings	Ancient monuments Buildings
Property in other forms (crops, livestock, home grown produce, owned or domesticated animals, wild animals subject to shooting or fishing rights)	Agricultural land Allotments and gardens Forestry areas Other open spaces, rivers, lakes etc
Controlled Waters	Surface waters Drinking water abstractions Source Protection Zones Groundwater – Private abstractions Groundwater – Major Aquifers

4.4 Gaps in Information

The Council, within its various departments/divisions, currently holds a lot of information relating to e.g. past land use and other contaminative issues.

The Council, however, readily accepts that in relation to implementation of Part IIa and its Contaminated Land Strategy, that there are large gaps in the information currently available e.g. geological/hydrogeological information.

However, as the strategy is implemented, particularly in the first year with the introduction of the GIS database, these gaps will be filled through the addition of the information from the sources listed above in box 4.1.

4.5 Information Evaluation, Storage and Management

4.5.1 Evaluation/Risk Assessment

There will be 4 basic stages to the strategy, to be implemented over a set time period although these periods will be reviewed and may vary: -

Stages of Implementing Strategy

- ❖ **Stage 1** - will involve the running of data handling and risk modelling system for the identification and risk categorisation of sources, receptors and pathways.
- ❖ **Stage 2** - will involve a more detail study (desktop) of the areas highlighted in Stage 1.
- ❖ **Stage 3** - will involve site investigations of those areas highlighted in Stage 2 and where a pollution linkage exists.
- ❖ **Stage 4** - will involve the determination of the land as contaminated with significant risk, etc. and action will be taken to ensure the land is made safe.

Stage 1 - This involves the collation, evaluation and management of available information.

Information within the Council is currently stored on a general database and in paper files. A large amount of information will need to be obtained, collated and evaluated from various departments and outside sources (box 4.1) during the implementation of the strategy, so as to assist in the determination or otherwise of contaminated land.

The best way of handling and processing all this information/data is with the use of a GIS based system (Geographical Information System) with a risk modelling component to risk categorise the information collated. This is where we will be supported by outside expertise on a consultancy basis as well as through the purchase of datasets e.g. Landmark, aerial photography, British Geological Society (BGS). This system and information will be used to risk categorise and prioritise information with respect to individual sites. Risk assessment involves hazard identification, hazard assessment, risk estimation and risk evaluation.

All information obtained and risk categorisations determined will be evaluated against current government guidelines.

Stage 1 should highlight all sources and receptors situated within the borough based on the current available information and a risk rating applied. This information will then be further categorised depending on the availability of pathways and will then be given a final risk rating. The risk ratings will be further categorised into high, medium and low risk sites. Initially the high-risk categories will be passed on to Stage 2.

Stage 2 - This stage will take on board the findings in Stage 1. The sites highlighted as high risk will be subjected to a further desktop review to confirm the reasons for the categorisation and justification for them. Further data will be sought as necessary and a site walkover may be included to determine the accuracy of the information or to gather further evidence for or against the particular rating.

If the categorisation is considered justified, then the site will move on to Stage 3. If not, the new or updated information will be put into the system and Stage 1 rerun to obtain a new risk rating.

Stage 3 - This stage will involve a more detailed site investigation and may include intrusive sampling. Consultants may be utilised to assist in this process. Determination of a pollution linkage is necessary as well as significant harm being caused or that there is a significant possibility of such harm being caused or that pollution of controlled waters is being, or is likely to be, caused.

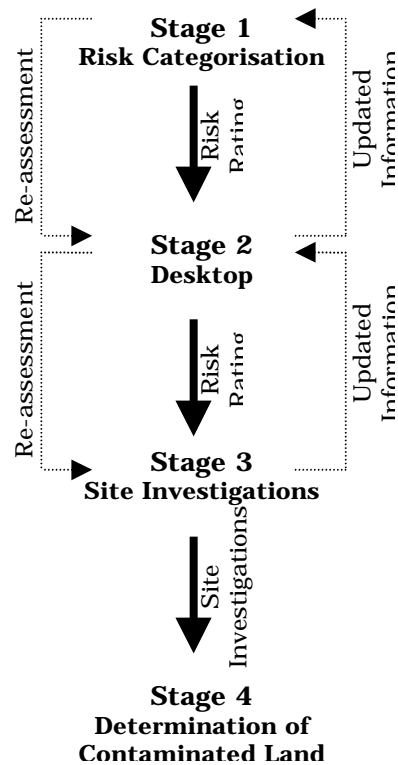
The Council may also request that the Environment Agency undertakes site investigations to enable the Council to determine the site as Contaminated Land, where the site is or has potential to be a Special Site.

If the site investigation confirms that the site is contaminated, then this will be passed onto Stage 4. If not, the new information will be inputted back into Stage 2 of the risk model and a new risk rating given to the site.

Stage 4 - Once determined as contaminated, further action will need to be taken to ensure that the site is remediated or made safe by voluntary action or service of remediation notices.

The regulations provide incentives for voluntary remediation of contaminated sites in that any materials that require disposal will be exempt from landfill taxes. No incentives are available once a Remediation Notice has been served.

Diagram 2 - Stages of Strategy



4.5.2 Current Guidelines

Guidance available against which contamination of sites could be assessed and risk determined has been limited or incomplete. Some of the guides that have been used to date are: -

- ❖ ICRCL (59/83 2nd ed July 1987) – guidance on assessment and redevelopment of contaminated land.
- ❖ ‘Dutch Standards’ – target and intervention values for soil and groundwater in the Netherlands.
- ❖ ‘Kelly Tables’ - guidelines for classification of contaminated soils

The ICRCL guidance has been the most widely used set of trigger and action values (although incomplete) for a range of contaminants. These tables have often been used in conjunction with the Dutch Standards and Kelly Tables to produce a broad range of criteria against which an assessment can be made. However, consideration has had to be given to differences in remediation standards between different countries e.g. with the Dutch Standards.

When considering groundwater vulnerability/risk assessments, the Environment Agencies preferred method of assessment is their “Methodology for the Derivation of Remedial Targets for Soils and Groundwater to protect Water Resources” (R&D Publication 20, 1999)

When considering surface waters, River Quality Objectives (RQO's) and Environmental Quality Standards (EQS) are the Agencies preferred guidance. Where these do not exist, a specific assessment with respect to impact on surface waters, sediments and ecosystems is likely to be required.

Some other sources of information available against which contamination can be assessed are HSE, WHO and Drinking Water Guidelines.

4.5.3 New Guidelines

DEFRA has produced a set of guidelines called the CLEA Guidelines – Contaminated Land Exposure Assessment which can be viewed on the DEFRA website www.defra.gov.uk/environment/landliability/index.htm. It is expected that that previous guidance listed above will remain as key reference documents and will be used in conjunction with the CLEA guidelines.

4.6 Powers of Entry

In accordance with section 108 of the Environment Act 1995, the Council has statutory powers to authorise persons to carry out detailed inspection, including intrusive investigations on land. The Council can only exercise these powers if it is satisfied that: -

- ❖ There is reasonable possibility that a pollution linkage exists on the land; and
- ❖ For cases involving intrusive investigation, that it is likely that a contaminant is present; and
- ❖ Given the current land use, a receptor is actually present or likely to be present.

The use of such powers should be a last resort. Voluntary co-operation and assistance should be sought from any owner or occupier of any land under investigated to obtain access for further investigation, or information should be sought directly from the owner or occupier.

4.7 Designation of Land as Contaminated

If after all investigations and risk assessments have been carried out, land is to be determined as contaminated then a full written record of any determination shall be prepared. The written record should include: -

- ❖ A description of the particular significant pollution linkage, identifying all three components of pollutant, pathway and receptor.;
- ❖ A summary of the evidence upon which the determination is based;
- ❖ A summary of the relevant assessment of evidence; and
- ❖ A summary of the way in which the authority considers that the requirements of the statutory guidance have been satisfied.

The procedure for designation is: -

- I) Write notifying the land owner/occupier and any other appropriate person at least 5 working days prior to designation, explaining in summary the reasons for the designation.
- II) Write notifying the land owner/occupier and any other appropriate person notifying them that the land has been designated as contaminated land and seek remediation without the service of remediation notices.
- III) If requested, dispatch a copy of the written risk assessment to the owner/occupier or any other appropriate person within 5 working days of such a request.
- IV) Write to owners /occupiers of adjacent lands and any other interested persons or bodies who may have an interest in determination after designation.
- V) Advise the Environment Agency via the information exchange forms with appropriate details

4.8 Designating Special Sites

The Environment Agency is the enforcing authority for Special Sites. Special Sites are sites that meet the criteria for contaminated land and fall within one of the descriptions given in Regulation 2 and 3 and Schedule 1 of the Contaminated Land (England) Regulations 2000 in the legislation, examples of which are listed below: -

❖ Certain water pollution situations

❖ Industrial situations involving :

- **Waste acid tar lagoons**
- **Oil refining**
- **Explosives**
- **Integrated pollution control sites**
- **Nuclear sites**

❖ Situations involving the manufacture, production or disposal of :

- **Chemical Weapons**
- **Biological agents or toxins**

❖ Land owned/occupied by the Ministry of Defence

If the Council consider that a site is contaminated or is likely to be classified as contaminated and is or may be as a Special Site, then the Council as advised in statutory guidance will have full and open discussion and consultation with the Environment Agency with respect to this determination.

The Environment Agency may also carry out inspection work on behalf of the Council with respect to potential Special Sites, although the Council will still be responsible for determining whether or not the land is contaminated and/or classified as a Special Site.

4.9 Service of Remediation Notices

The main criteria for the service of a Remediation Notice is that the Local Authority considers that there are remediation actions, identified as part of the remediation scheme which: -

- a) Have not been, are not being and will not be carried out without the service of a Remediation Notice.
- b) In respect of which the authority has power under Section 78N to carry out itself and for which it is not itself the appropriate person.

Before service of a Remediation Notice, the authority needs to ensure that it has made reasonable endeavours to consult with the appropriate person and the other relevant persons on the nature of the remediation which is to be carried out.

When the authority has satisfied itself that that it has consulted sufficiently and subject to any timing requirements, the authority will be under a duty to serve a Remediation Notice on each appropriate person requiring the relevant remediation action to be carried out.

4.9.1 Content of Remediation Notices

The requirements for the contents of a Remediation Notice are set out in Sections 78E(1) and (3) of the Act and Regulation 4 of the Contaminated Land (England) Regulations 2000 and generally include information about the contaminated land, the remediation, the appropriate persons and the right of appeal.

Copies of the remediation notice should also be sent to any person who has been consulted under Section 78G(3) and under Section 78H(1) to the Environment Agency.

Prescribed details of the remediation notice should also be kept in the Contaminated Land Register as required under Section 78R(1)(a) and Regulation 15.

4.9.2 Timing of Service

The date of notification (see para 4.7) to each appropriate person determines the earliest date that the enforcing authority can serve a Remediation Notice. Except in the case of an emergency, at least 3 months must elapse between notification and service.

4.9.3 Appeals

Any person who receives a Remediation Notice has a 21 day right of appeal under Section 78L(1). The appeal is to a Magistrate's Court. Procedures for an appeal are listed in Regulations 8 – 14. The Remediation Notice is suspended until the final determination or abandonment of any appeal.

4.10 Enquiries and Information Received

The Council from time to time receives information or enquiries from members of the public and others regarding contamination issues. These enquiries will be logged and will initially be dealt with in the same way as other enquiries or complaints to the Council. The criteria for dealing with enquiries from the public are detailed in box 4.3.

Box 4.3 Enquiries from the Public

- ❖ Enquiries and information received by the public will be acknowledged within 5 days.
- ❖ The information received will be assessed and cross-referenced against our database, for the site/land in question.
- ❖ If information is already known then the information will be filed and a response given to the enquirer.
- ❖ If the information is new, then it will be verified and included on the database system as necessary and a prioritisation given to it. Further action will depend on the risk rating arising from the information.
- ❖ Enquirers will be kept informed of action taken as necessary.

The criteria for dealing with enquiries from owners, consultants and others detailed in box 4.4.

Any enquiries and information relating to Controlled Waters and Special Sites will also be passed to the Environment Agency for their information and action.

Box 4.4 Enquiries from Others (Owners, Consultants, etc)

- ❖ All enquiries/information received from landowners, consultants, etc will be acknowledged within 5 working days.
- ❖ The information received will be cross-referenced against our database, for the site/land in question.
- ❖ If information is already known then the information will be filed and a response given to the enquirer.
- ❖ If the information is new, then it will be included on the database system. A prioritisation rating will then be applied. Further action will be dependent on the type of information/enquiry and the risk rating applied.
- ❖ With respect to reports received relating to development of sites within the borough e.g. risk assessments, remediation or validation reports, this new information will be added to the current database for that site or a new database set up. A risk assessment will be applied to this site based on the information received and action taken depending on the prioritisation given. All reports will be reviewed and it is intended at this time that a response will be given within 30 days if not sooner.

4.11 Anonymous Complaints/Information

Anonymous information or complaints will be logged in the usual way. The information will then be assessed and cross-checked against information held on our database. The complaint will then either be filed or further investigation carried out to determine its validity and whether further action is required. Any information relating to Special Sites or Controlled Waters will be passed to the Environment Agency for their information and action.

4.12 Requests for Information

All requests for information with respect to information held generally or on a site specific basis will be requested in writing

The current service standard for the Environmental Protection Section of Environmental Health Services is to respond to general and routine correspondence within 10 working days of receiving a letter. Where it seems that a response may take longer than 10 days, an acknowledgement letter/card will be sent within 5 working days of receipt providing details of the person handling the query and the action being taken to progress the matter.

The GIS based data management system will incorporate a report writing system. This system will enable reports to be written to include all datasets available, maps, aerial photography, etc

It is intended that a charge will be applied to all applications for information. This will be to cover costs relating to provision of data handling systems, datasets/licences, report writing, aerial photography, etc. The sum is to be determined, but is likely to be around £100.

4.13 Confidentiality and Accessibility

4.13.1 Confidentiality

With respect to enquiries, complaints and information received, the enquirer(s)/complainant(s) details will remain confidential as per the policy of the Council, unless required as evidence at some future date.

With respect to information held by the Council, the Strategy, Public Register and information held relating to contaminated land issues will be generally available to the public and others. This will however be subject to legal review as well as the requirements of any current legislation in relation to e.g. information of a personal or commercially sensitive nature. Current legislative powers controlling the availability of information are :-

Local Government (Access to Information) Act 1985
Environmental Information Regulations 1992
Environmental Information (Amendment) Regulations 1998
Data Protection Act 1998
Human Rights Act 1998
Freedom of Information Act 2000

4.13.2 Accessibility

It is intended that the GIS based data management system will be accessible to other departments within the Council who are involved in contaminated land issues. It is hoped that the system will be accessible within this Division via a Desktop PC and the Internet.

The Council and the Environment Agency will disclose information to each other regarding Special Sites and land owners, consultant's etc. will be made aware of this.

It may be possible for the system to become accessible to the public and others, however the level of access will depend on the site and the sensitivity or otherwise of the information held. It is intended that this will be further clarified in the first annual review of the strategy.

5. General Liaison and Communication

The implementation of Part IIA is not a restricted process in terms of involvement of others. Although principally the Environmental Health Services Division is implementing the strategy within the authority, it will be a collaborative process involving a number of departments, for example, Legal Services and Planning Services.

It will also be policy as far as is reasonably practicable, to ensure that members of the public, businesses and other interested parties are aware of the requirements on the Council with respect to the legislation, contaminated land and its objectives with respect to these new requirements. The intentions of the Council and the Contaminated Land Strategy will be made available to the public through its various departments e.g. Planning and Environmental Health Services, through publications such as Policy and Strategy documents and other available means of communication. The strategy will be made available at the Council's Offices and on the Council's website.

5.1 External Liaison and Consultation

Contact has been made with external organisations before and will be maintained after preparation of this strategy. There are both statutory and non - statutory consultees and these are detailed in Box 5.1. Individual contacts will be identified in each organisation and a key contact, the Contaminated Land Officer, will be nominated within this authority.

5.2 Internal Liaison and Consultation

Liaison with other departments and groups within the Council is just as important as with external bodies. For this process to work clear routes of communication need to be set up and individual contacts identified. Roles within the Council often overlap and therefore clear communication is essential. Box 5.1 below lists some of the internal contacts.

5.3 Non - Statutory Consultees

Copies of the strategy will be available at the Civic Centre and on the web site and comment will be encouraged and given equal consideration, no matter what the source. Examples of non-statutory consultees are given in box 5.1 below.

Residents are included in this consultation and it is hoped that they will take an interest in contaminated land issues within their environment.

Box 5.1 Consultees		
External Bodies (Statutory Consultees) for liaison	Examples of Internal Contacts	Non – Statutory Consultees
<p>Local authorities should consider establishing formal liaison procedures with the following specific organisations where appropriate:</p> <ul style="list-style-type: none"> ❖ Environment Agency ❖ English nature ❖ English Heritage ❖ English Partnerships ❖ DEFRA ❖ DTLR ❖ Food Standards Agency 	<ul style="list-style-type: none"> ❖ Planning ❖ Building Control ❖ Legal ❖ Property Services ❖ Environmental Services ❖ Housing 	<ul style="list-style-type: none"> ❖ Adj. boroughs <ul style="list-style-type: none"> -Brent -Barnet -Ealing -Hertsmere -Hillingdon ❖ TWUL ❖ Three Valleys ❖ MOD ❖ HSE ❖ London Wildlife Trust ❖ Friends of the Earth ❖ Residents

5.4 Methods of Communication

There are many means of communication, e.g. verbal, written and electronic and we should not limit our choices of communication during the production and implementation of this strategy.

Communication should be clear and concise as well as being a 2 way process. Communication is a means of getting over information whether desired or not and is a way of soliciting information in return.

Written reports should also be clear and concise and all decision-making processes should be transparent in the reasons for them and the grounds on which they are based.

5.5 Communication with Owners, Occupiers and ‘Responsible Persons’

Effective communication will play a very important part in the designation and remediation of contaminated land. A central point of contact with respect to contamination issues will be the Contaminated Land Officer of the Environmental Protection Section. This will ensure uniformity in communication and ensure effective liaison between all parties involved.

The Council intends to strive for voluntary action over enforcement action in all situations and effective communication is the only way of ensuring this. Generally, voluntary action will be via the Planning process and is the approach preferred by the Government, and therefore Planning Services will play an important role in this communication.

5.6 Risk Communication

Contaminated land issues by their very nature are complex and do not lend themselves to easy explanation to a lay person or those with scientific, technical or legal backgrounds.

The perception of risk from contaminated land varies greatly and will be influenced by a number of factors, including the individual viewpoints of the different types of interested parties. The Council will attempt at all times to overcome these barriers to risk communication. However, it is important to appreciate that the expectations of some members of the public will not be met by the powers local authorities may exercise under contaminated land legislation. Development of effective methods of communication is therefore essential.

The barriers to effective risk communication are set out below:-

- ❖ Unfamiliar issues cause concern
- ❖ Lack of control over issues in their environment
- ❖ Proximity of events in their environment
- ❖ Short term effects cause immediate concern
- ❖ Long term effects cause concern particularly if contamination not removed or completely removed
- ❖ Scale of events – large scale events appear worse than small scale events.
- ❖ Lack of understanding can lead to stress making further explanation difficult. Known as the ‘dread factor’
- ❖ Media involvement

Guidance is available with respect to risk communication e.g. “Communicating Understanding of Contaminated Land Risks” published by ‘SNIFFER’.

5.7 Risk and Blight

It is clear that any indication that a site is contaminated within this borough could blight the property/land concerned and cause loss of value as well as concern to residents. Contaminated land is not a clear-cut issue. Land can contain contaminants, but not be contaminated land under Part IIA.

Peoples' perceptions of contaminated and risk will vary greatly depending on their viewpoint. An owner, occupier and the local authority may all have differing opinions and views about the state of a piece of land.

It must be accepted that each will have a justified view point, as that viewpoint will be based on different criteria.

It will therefore be necessary for the Council to clearly communicate all stages of any investigation and findings and be able to fully support those findings with evidence.

Contaminated land is defined in the statutory guidance and the criteria laid down will have to be met before land can be classified as such. This is where the **source - pathway - receptor** scenario is key along with the need for there to be **significant harm** being caused or that there is a **significant possibility** of such harm, or **pollution of controlled waters** is being or is likely to be caused.

5.8 Provision of Information to the Environment Agency

The Environment Agency will from time to time or at the request of the Secretary of State, produce a report on the state of contaminated land for England. Under Section 78U of the Environmental Protection Act 1990, local authorities are required to provide the Agency with information with which to prepare the report, in response to reasonable requests.

The aim of the report is to compile information on the nature, extent and distribution of contaminated land, the level of remediation undertaken and regulatory activity under Part IIA. In the interests of efficiency, the Agency and the Local Government Association (LGA) have agreed an approach for the exchange of information, set out in the Protocol for Land Contamination dated November 2000.

Specific Forms have been devised for reporting of information to the Environment Agency and these are listed in Appendix IV.

5.9 The Public Register

In accordance with section 78R of Part IIA, local authorities are required to maintain a public register. This is not a register of contaminated land or sites that have been investigated as contaminated by the local authority. It is a record of all regulatory action taken by the Council in respect of remediation of contaminated land and includes all information about that land.

It is a full and permanent record open to the public. It is likely to be in paper form and will be available at the Council Offices during normal working hours of 9:00 to 5:00.

The regulations specify the information to be held in the Public Register as shown in box 5.2.

Box 5.2 Public register to contain:

- ❖ Remediation Notices
- ❖ Remediation declarations
- ❖ Remediation statements
- ❖ Notification of claimed remediation
- ❖ Designation of special sites
- ❖ Site specific guidance from the Environment Agency
- ❖ Appeals against remediation notices
- ❖ Convictions for offences
- ❖ Information on cases of contaminated land being dealt with under other regimes.

6. Strategy Review

6.1 Aims and Objectives

The Council has a duty under Part IIA to subject its strategy to periodic review. It will also be a useful tool to the development and incorporation of the Strategy into the work of the Council to monitor its progress and effects.

6.2 Purpose

The purpose of this review will be to :-

- ❖ Monitor the aims and objectives set within the Strategy
- ❖ Monitor the time limits set within the Strategy.
- ❖ Revise and/or improve the aims, objectives and time limits set within the Strategy.
- ❖ Revise the Strategy in the light of :-
 - changes to existing/new legislation.
 - introduction of any new case law or precedents.
 - introduction of any new guidance etc.
- ❖ Revise and improve procedures based on knowledge and experience gained.
- ❖ Change the Strategy in the light of changes to Council policies, procedures and funding.

6.3 Time Scales

It is intended to carry out an initial review of the Strategy in the year following its adoption. It is not known at this time when further reviews will be carried out. These will be dependent on experience gained during the first review, as well as any legislative requirements and guidance issued.

6.4 Review Procedures

The review will in the first instance be carried out by the Environmental Protection Section of Environmental Health Services. This will be based on actual experience gained in the implementation of the strategy as well as in consultation with the various departments within the Council associated with this subject e.g. Planning. It is anticipated that a working group will be set up with the respective departments on this issue.

Proposed changes to the strategy will be put out for consultation/comment to the statutory and non-statutory consultees detailed in Box 5.1. The strategy document will only be revised once consultation has been carried out and agreement reached as to any proposed changes.

7. Other Supporting Information

7.1 How to contact us - Contaminated Land Issues

If you have any query or concerns about contaminated land in the London Borough of Harrow or you would like to obtain further information about contaminated land in general or in relation to a specific site, then please do not hesitate to contact the Contaminated Land Officer of Environmental Health Services. Contact details below.

If you have any concerns regarding planning issues and contaminated land, then do not hesitate to contact this Council's Planning Services. Contact details below.

7.2 Strategy - Comments

We are really interested in receiving feedback on this strategy and would in particular appreciate comments in regard to the following:-

- ❖ What do you think of our strategy?
- ❖ Does it meet the needs of the borough?
- ❖ Are there any parts you agree/disagree with?
- ❖ Are there any errors or omissions that you think should be changed/included?
- ❖ Do you think it can be improved?
- ❖ Do you have any other comments you would like to make?

All comments should be made preferably in writing, to the Contaminated Land Officer at the address below, or emailed on alex.hauck@harrow.gov.uk.

7.3 LB Harrow Contacts:

Contaminated Land Officer
Environmental Protection Division
Environmental Health Services
PO Box 18
Civic Centre
Station Road
Harrow
Middlesex
HA1 2UT

020 8424 1297
email – environmentalhealth@harrow.gov.uk

Planning Officer
Environmental Services
PO Box 37
Civic Centre
Station Road
Harrow
Middlesex
HA1 2UY

020 8424 1441

Alternatively visit the Councils Website at www.harrow.gov.uk

7.4 Other Contacts

Environment Agency

Apollo Court
2 Bishops Square Business Park
St Albans Road West
Hatfield
Herts
AL10 9EX

Tel no: 01707 632300

DEFRA

Rural development Service
Land Management team
100 Southgate Street
Bury St Edmunds
Suffolk
IP33 2BD

Tel no: 01284 723136

FSA

Aviation House
Room 703
125 Kingsway
London
WC2B 6NH

Tel no: 020 7276 8708

English Heritage

London region
23 Saville Row
London
W1X 1AB

Tel no: 020 7973 3000

English Nature

London Office
Ormond House
26/27 Boswell Street
London
WC1N 3JZ

Tel no: 020 7831 6922

English Partnerships

Corporate Headquarters
16 - 18 Old Queen street
London
SW1H 9HP

Tel no: 020 7976 7070

7.5 Language and other Translations

If anyone requires a translation of this document or requires it in a different format, then please contact either the Contaminated Land Officer or the Administration Section of Environmental Health Services on 020 8424 1380 and we will endeavour to assist you in your requirement.

8. References

8.1 Legislation & Guidance

1. The Environmental Protection Act 1990: HMSO.
2. The Environment Act 1995; HMSO.
3. The Contaminated Land (England) Regulations 1999; HMSO.
4. DETR Circular 2/2000; HMSO.
5. Contaminated Land Inspection strategies, Technical Advice for Local Authorities; DETR, HMSO.
6. Local Authority Guide to the Application of Part IIA of the Environmental Protection Act 1990, Environment Agency.
7. BGS & Environment Agency - "Guidance on the use of digital environmental data; March 2000". BGS Report Technical WE/99/14 & Environment Agency National Groundwater and Contaminated Land Centre Project NC/06/32
8. BGS & Environment Agency - "The physical properties of major aquifers in England and Wales" BGS Technical report WD/97/34 and EA R&D Publication 8.
9. BGS & Environment Agency - "The physical properties of minor aquifers in England and Wales" BGS Technical report WD/00/04 and EA R&D Publication 68.
10. British Standards Institute "Code of Practice for the Investigation of potentially Contaminated Sites", BS 10175:2001
11. Environment Agency "Technical Aspects of Site Investigation (Vols. I & II). Technical Report P5-065/TR, 2001
12. Environment Agency "Secondary Model Procedure for the Development of Appropriate Soil Sampling Strategies for Contaminated Land". Technical Report P5-066/TR, 2001
13. Environment Agency "Guidelines and Protocols for the Investigation to assess Site Specific Groundwater Availability". Technical Report P308, 1999
14. Environment Agency and NHBC "Guidance for the Safe Development of Housing on Land affected by contamination" R&D Publication 66.
15. Environment Agency "Assessing Risks to Ecosystems from Land Contamination" Technical Report P299, 2001
16. Environment Agency "Guidance on Monitoring Landfill Leachate, Groundwater and Surface Water" 2000
17. Environment Agency "Methane Emissions from Different Landfill Categories" Technical Report P233, 1999
18. Environment Agency "Draft Guidance on the Disposal of Contaminated Soils" EA 2001
19. Local Environment Agency Plans (LEAP plans) for the Colne (Consultation, Second Draft) and North London (Environmental Overview).
20. National Rivers Authority "Leaching Tests for Assessment of Contaminated Land: Interim Guidance" R&D Note 301, 1994
21. Websites of DEFRA, DTLR, Environment Agency, English Nature and BGS.

8.2 LB Harrow Documentation

1. Harrow Unitary Development Plan (UDP) 1994 and 2001 Review.
2. Harrow Local Agenda 21
3. Harrow Policy Statement on Flood Defence
4. Nature Conservation in Harrow – London Ecology Unit
5. Environmental Health Services Development Plan 2000/2001
6. Environmental Health Services Service Plan 2001/2002
7. Environmental Health Services – Customer Charter
8. Borough Profile – Department of Environmental Services 2000

8.3 Other Information

1. Landmark – Historical Maps.
2. Forest of Dean District Council: Contaminated Land Inspection Strategy (Draft); November 2000,
3. LB Hillingdon: Contaminated Land Inspection Strategy (Draft),
4. Leeds: Contaminated Land Inspection Strategy (Draft)

9 Glossary of Terms.

The following list of terms have been presented to aid the layperson:

Agency

Refers to the Environment Agency.

Agenda 21

A comprehensive programme of world-wide action to achieve more 'sustainable development' for the 21st century. UK government adopted the declaration at the UN Conference on Environment and Development (the Earth Summit) held in Rio de Janeiro in 1992.

Ancient Monuments

These are sites of national importance where the provisions of the Ancient Monuments and Archaeological Areas Act 1979 apply (as amended by The National Heritage Act 1983).

Appropriate person

Defined in section 78A(9) as 'any person who is 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'.

Arcview

See GIS.

Aquifer

Underground water source – water-bearing rock. See also Major-, Minor- and Non-aquifer.

BGS

British Geological Survey

Brownfield sites

These include vacant land or premises, underused or underdeveloped land, outdated or derelict premises, land that is likely to be redeveloped in the next 5 to 10 years and previously developed sites in the Green Belt. A fraction of Brownfield sites are likely to be contaminated by previous use.

CLEA

Contaminated Land Exposure Assessment, a methodology for carrying out risk assessment.

Contaminant

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

Contaminated land

Any land which appears to the local authority in whose area it is situated to be in such a condition, by reasons of substances, in, on or under that land that a significant harm is being caused or there is a significant possibility of such harm being caused; or pollution of controlled waters is being, or likely to be caused.

Controlled Waters

Controlled waters include all rivers, canals, streams, brooks, drainage ditches, lakes, reservoirs, estuaries, coastal waters and groundwater to which British pollution control legislation applies. Small ponds and reservoirs do not themselves feed other rivers or watercourses are not included within the definition of "controlled waters" unless the Secretary of State defines them as such.

Datasets

Sets of information generated by research.

DEFRA

Department of the Environment, Food and Rural Affairs.

DTLR

Department of Transport, Local Government and the Regions

Dutch Standards

Target and Intervention values for soil and groundwater in the Netherlands.

EA

See Agency.

EPA 1990

See Part 11A.

Enforcing authority

Defined in section 78A(9) as the Environment Agency in relation to a special site, and the Local Authority in whose area the land is situated in relation to other contaminated land.

FSA

Food Standards Agency, an non – governmental organisation set up to protect public health and the interests of consumers in relation to food.

GIS

Geographical Information Systems is a software package capable of showing both graphical information (digital maps) and associated attribute information (from a database). Typical GIS functionality includes data entry, spatial and textual querying, data analysis and the production of hard copy maps. Arcview is one such system.

Green Belt

Predominantly open land around built-up areas which has the strategic role of defining the edge of London, limiting urban sprawl, preventing neighbouring towns from merging into one another, safeguarding open countryside from development, assisting in urban regeneration and providing areas for open recreational activity. Within the Green Belt there is a presumption against development.

Groundwater

Water in the saturation zone, where all pore space in the sediment and rock are completely filled with water.

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.

HSE

Health and Safety Executive.

ICRCL

Interdepartmental Committee on the Redevelopment of Contaminated Land. A set of guidance on the assessment and redevelopment of contaminated land.

Intrusive investigation

An investigation of land (for example by exploratory excavations) which involves actions going beyond the simple visual inspection on the land, limited sampling or assessment of documentary information (Paragraph B.20 (c)).

Landfill sites

Licensed sites used for waste disposal into/onto land. Former mineral extraction sites were sometimes used for this purpose.

LBH

London Borough of Harrow

Listed Buildings

A building of special architectural or historic interest included on a statutory list compiled by the Secretary of State for the Environment (now by the Secretary of State for Culture...). Grade I buildings are those of exceptional interest, Grade II* are particularly important buildings of more than special interest and Grade II are of special interest, warranting every effort to preserve them. Listed Building Consent is required before whole or partial demolition, or any alterations which effect the character of the building, can be undertaken.

Local Authority

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

Major Aquifers

Highly permeable strata which generally have a known or probable presence of significant fracturing. They are usually productive and are able to support large abstractions for public supply and other purposes. Layer of porous rock able to hold and transmit water.

Metropolitan Open Land

Strategic open space within the urban area, which is significant to London as a whole. These areas may be important in providing attractive breaks in the Built-up area, providing open air facilities or containing features or landscape of historic, recreation, nature conservation or scientific value to the whole or part of London.

Minor Aquifers

Fractured or potentially fractured rocks, which do not have high primary permeability, or formations of variable permeability including unconsolidated deposits.

Although these aquifers will seldom produce large quantities of water for abstraction, they are important both for local supplies and in supplying base flow to rivers. Major aquifers may occur below minor aquifers

MOD

Ministry of Defence, a governmental department who are owners/managers of defence properties.

NNR (National Nature Reserve)

English Nature states that these are “nationally important” places where wildlife comes first. They have been established to protect the most important areas of wildlife habitat and geological features in Britain and as places of scientific research, and are carefully managed on behalf of the nation for the nations enjoyment.

Non-Aquifers

Formations, which are generally regarded as containing insignificant quantities of groundwater. However, groundwater flow through such rocks, although imperceptible, does take place and needs to be considered in assessing the risk associated with persistent pollutants. Some non-aquifers can yield water in sufficient quantities for domestic use. Major or Minor Aquifers may occur beneath Non-Aquifers.

OS

Ordnance Survey

Owner

Defined under section 78A(9) as “a person (other than a mortgagee not in possession) who, whether in his own right or as trustee for any other person, is entitled to receive the rack rent of the land, or where the land is not let at a rack rent, would be so entitled if it were so let.”

Part IIA

Refers to the Environmental Protection Act 1990: Part IIA.

Pathway

The route or routes, both direct and indirect by which a contaminant can reach a receptor.

Point Source

Source of pollution, which is a discrete, identifiable discharge such as a sewage outfall or industrial discharge.

Pollutant

A contaminant which forms part of a pollutant linkage.

Pollutant linkage

The linking mechanism between a contaminant (pollutant), and its pathway to a receptor.

Potentially Sensitive Receptors

These include humans, animals, ecosystems, water systems, buildings and other forms of property, which can be adversely affected by contaminated land.

Ramsar site

A site protected under international convention on protection of wetlands of international importance, especially as habitats for waterfowl, named after the city in Iran where the convention was signed.

Receptors

See Potentially Sensitive Receptors.

Remedial Action

See Remediation.

Remediation

The improvement of contaminated land to make them suitable to new uses and their continued monitoring where necessary. It also encompasses, in light of the new legislation, assessment of condition of the land.

Remediation Notice

Defined in section 78E(1) as a notice to specify 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 Assessment

A statistical assessment method that looks at the probability, or frequency of a defined hazard occurring and the extent of its consequences.

SAC

Special area of conservation set up and managed by English Nature and others.

Significant harm

Means harm, which is determined to be significant in accordance with statutory guidance. See DETR Circular (2/2000) Chapter A.

Significant Pollutant Linkage

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

Significant possibility of harm

A possibility of significant harm being caused which is determined to be significant in accordance with statutory guidance. See DETR Circular (2/2000) Chapter A.

SNIFFER

Scotland and Northern Ireland Forum for Environmental Research.

Source Protection Zones

A defined geographical area in which protection is given to a groundwater abstraction point. All sources, including springs, wells and boreholes are liable to contamination and need to be protected. Three groundwater protection zones are recognised: Inner Source Protection (Zone 1), Outer Source Protection (Zone 2) and Source Catchment (Zone 3).

SPA

A SPA is a Special Protection Area. These areas are created to provide increased protection and management for areas that are important for breeding, feeding, wintering or migration of rare and vulnerable species of birds.

Special sites

Sites for which the Environment Agency rather than the Local Authority is the enforcing authority for the purposes of the Part IIA regime. These include IPC sites, nuclear sites, pollution of controlled waters, MOD sites and sites where munitions manufacturing has taken place.

SSSI

Sites of Special Scientific Interest are notified by English Nature as an area under the Wildlife and Countryside Act 1981, or special interest for its importance to nature conservation.

Sustainable Development

Promotes the well being of all members of the community through meeting social need, improving economic success and protecting and enhancing the environment.

Suitable for use

'The 'suitable for use' approach focuses on the risks caused by land contamination. The approach recognises that the risks presented by any given level of contamination will vary greatly according to the use of the land and a wide range of other factors, such as the underlying geology of the site. Risks therefore need to be assessed on a site-by-site basis. The 'suitable for use' approach provides the best means of reconciling our various environmental, social and economic needs in relation to contaminated land', thus following the policy of 'sustainable development'.

Three Valleys

Three Valleys Water Company, the drinking water supplier in this borough

TWUL

Thames Water Utilities Ltd, the major sewage undertaker in this borough.

HUDP (Harrow Unitary Development Plan)

Sets out the main considerations on which planning applications are decided and can guide a range of responsibilities of local government and other agencies.

WHO

World Health Organisation.

10. Appendices

Appendix I - Local Authority Aims and Objectives

Local Authority Aims and Objectives

1. Obtaining and evaluating information of on actual harm, or pollution of controlled waters
2. Identifying sources and assessing their effects on receptors
3. Identifying receptors and assessing the possibility that they are being or could be exposed to or affected by contamination
4. To identify Council owned lands and ensure proper determination with respect to its status under Part IIA of the EPA 90.
5. To identify all sites currently and previously used for industrial and other purposes that may have led to contamination. Risk assess all such identified land in to determine its status under Part IIA of the EPA 90 carried out.
6. Identify sites where remediation previously carried out and ensure previous remediation fits with current guidance under Part IIA.
7. Liaison with all interested Council departments to ensure a concise and co-ordinated approach.
8. Liaison with other interested bodies e.g. EA, English Nature, MAFF to ensure a concise and co-ordinated approach.
9. Liaison with and responding to information from owners or occupiers of land and other relevant interested parties
10. Responding to complaints from members of the public etc
11. Managing information obtained and held in the course of carrying out its duties under Part IIA of the EPA 90.
12. To provide information to the public, developers and others with respect to land within the borough and possible contamination issues.
13. Planning and reviewing a programme for inspecting particular areas of land and carrying out those inspections
14. Reviewing and updating assumptions in assessments of contamination and risk.
15. To ensure that all developments of brown field sites within the borough are carried out in such a way as to ensure that the land is fit for the purpose.

Appendix II - Targets/Timetable/Milestones

MILESTONE	TARGET	YEAR	OUTCOME
2	Obtain a growth bid for funding of our requirements under Part IIA.	2000/2001	Achieved
3	Obtain a dedicated and networked desktop PC. The specification of this PC suitable for GIS and other software associated with the Contaminated Land Strategy.	2000/2001	Achieved
3	Obtain geographical information system (GIS) software based on Arcview for incorporation in this PC.	2000/2001	Achieved
1,5	Produce and consult on Strategy	2000/2001	Achieved
4	Review the availability of external expertise (Consultants) in GIS (Arcview) based data handling and risk modelling systems.	2000/2001	Achieved
4	Obtain 3 tenders for the provision of a GIS based data handling and risk modelling system. Review and assess the bids received and determine the best package based on best value, effectiveness and cost.	2001/2002	Undergoing appraisal
4	Obtain training in the use of the chosen GIS system.	2002/2003	-
3	Obtain datasets for use in the chosen GIS system.	2001/2003	In progress
6	Carry out site identification and classification using the GIS based data handling and risk modelling system to provide an initial identification of sources, receptors and pathways. (Stage 1)	2002/2004	-
7	Carry out desktop studies to verify risk modelling classification and establish whether pathway exists. (Stage 2)	2003/2005	-
7,10	Carry out site investigations and more detailed site specific risk assessments. (Stage 3)	2004/2005	-
10,11,12	Determination of land as contaminated and service of Remediation Notices etc. (Stage 4)	-	-
9	Produce yearly reports to the Environment Agency with respect to contaminated land in Harrow	Annually	Ongoing
8,14	Carry out a review of the strategy	2003/2004	-

**Appendix III – Enquiries to Local Authorities Form CON 29.
(last revised 1st October 2001)**

New Questions in Local Land Charges Search

16A(1) - Register entries

Deals with enquiries as to information held in the register under S.78R (1) of the Environmental Protection Act 1990 in relation to the property.

16A(2) Notice of identification of contaminated land

Deals with enquiries with respect to served or resolved to serve any notices under S78B(3) in relation to the property.

16A(3) Consultation as to adjoining or adjacent contaminated land

Enquires as to whether the Council has consulted or resolved to consult, with the owner or occupier of the property under S78G(3) in relation to anything to be done on the property as a result of adjoining or adjacent land being contaminated land.

16A(4) Identification of risk from adjoining or adjacent land

Enquires as to whether any entry has been made in the register, or has any notice been served or resolved to be served under S78B (3), in relation to any adjoining or adjacent land which has been identified as contaminated land because it is in such a condition that harm or pollution of controlled waters might be caused on the property.

Appendix IV – Environment Agency Notification Forms

Environment Agency Notification Forms

FORM SOCL/LA/FORM1 - summary information for sites determined as contaminated or potential special sites

FORM SOCL/LA/FORM2 - summary information on site remediation

FORM SOCL/LA/FORM3 - summary information on regulatory activity

Information available on the Environment Agency website: www.environment-agency.gov.uk