Inspection strategy for the identification of contaminated land

CONTENTS

1. INTRODUCTION

1.1 Hastings Borough Council Vision and Priorities.

Through consultation with local people, businesses & service providers the Council has developed a shared vision for the future

"To make Hastings And St Leonards a place where people want to live, work and can enjoy a high quality of life"

Our vision is underpinned by six shared key aims

- Getting people into work
- Improving the image and appearance of the town
- Improving everybody's quality of life
- Making Hastings & St Leonards a safe place to live & work
- Involving local people in decision-making
- Improving transport and communication

The Council has set out five key priorities that will focus on delivering the vision and aims:

- Regeneration
- Community Safety and Quality of Life
- Community Participation and Neighbourhood Renewal
- Transport and Communication
- Modernisation

The Contaminated Land Inspection Strategy represents one link between these published priorities and the Council's approved objectives for the built and natural environment within the Hastings and St Leonards Sustainable Development Strategy and Action Plan

- Promote action towards providing clean air, clean land, and clean water and an environment free from pollution
- Encourage and support the use of brownfield sites, derelict land and buildings for developments and housing

The issue of land contamination has wide and potentially significant environmental, social and economic impacts. It is therefore important that the development of the Strategy has regard to all of these factors.

Regional Sustainable development Framework for the South East.

The Regional Sustainable Development Framework for the South East seeks to ensure that the regions needs are met in a sustainable manner. In particular the strategy promotes the following objectives:

- To re-use previously developed land & existing buildings, and encourage urban renaissance
- To encourage sustainable land management
- To stimulate economic revival in priority regeneration areas

Hastings Local Plan.

Hastings Local Plan sets out a framework of policies to guide and encourage development in the Borough, whilst safeguarding and protecting the environment. Any development proposal must take account of any potential contamination on a proposed site and include any remedial measures to ensure that the development can be carried out without risk to health, safety or the environment.

Hastings Regeneration Strategy 2000.

The Hastings Regeneration Strategy recognises that Hastings is a tightly defined area with limited land designated for development. The Strategy re-emphasises the need for development to be focused on re-use of existing land and buildings.

1.2 Regulatory Context

What follows is a simplified introduction to the main principles of the law applying to contaminated land. It should not be used for any other purpose and full reference to the legislation and statutory guidance is recommended.

Legislation

Part IIA of the Environmental Protection Act 1990 ("Part IIA") was introduced by section 57 of the Environment Act 1995 and came into force on 1 April 2000. It contains the long-awaited provisions on contaminated land in the UK and includes a new statutory definition outlined later in this section. A new duty is imposed on Local Authorities to inspect their areas for contaminated land and, where contaminated land is identified, to ensure satisfactory remediation. The Council's roles as primary enforcing authority for the purposes of Part IIA within the District are set out below. The Environment Agency's important roles in achieving the objectives of Part IIA are also outlined.

The regulatory roles of local authorities under Part IIA Environmental Protection Act 1990

The primary regulatory role under Part IIA rests with the Council, which will need to:

1. Cause the District / Borough to be inspected to identify contaminated land

2. Determine whether any particular site is contaminated land

3. To act as the enforcing authority for all contaminated land which is not designated as forming a "Special Site". In the case of Special Sites the Environment Agency will be the enforcing authority.

In order to fulfil these duties the Council is obliged to:

1. prepare an inspection strategy setting out how the Council will inspect its area with the aim of identifying contaminated land.
2. determine if any particular area of land is contaminated land as defined.
3. determine if contaminated land is to be designated as a special site.
4. undertake immediate remediation if there is an imminent danger of serious harm.
5. consider the application of alternative statutory regimes to the site (see later).
6. identify and notify those who may need to take action on the land.
7. determine responsibility for the remediation of the land.
8. consult with the relevant parties as to the remediation actions that are to be carried out.

9. serve remediation notices.
10. monitor the effectiveness of remediation carried out.
11. maintain a public register of details of regulatory action taken under the act.
12. report progress made under Part IIA to the Environment Agency.

The regulatory role of the Environment Agency.

The Environment Agency's role is to:

1. assist local authorities in identifying contaminated land.
2. provide site-specific guidance to Local Authorities.
3. act as the enforcing authority for designated Special Sites.
4. publish reports on contaminated land.

The relationship between Part IIA and other controls.

The statutory guidance establishes the relationships between Part IIA and existing systems of controls:

Planning and development control.
Part IIA will not normally apply where land is within the normal cycle of redevelopment and regeneration. In such circumstances the planning and development control regime will continue to be the primary means of control.

Statutory nuisance (Part III of the EPA 90)
Statutory nuisance no longer applies as the main control for contaminated land, however it may still apply where land is causing nuisance e.g. by odour, where the statutory definition of contaminated land can not be fulfilled.

Integrated pollution control (IPC) and Pollution Prevention and control (PPC).
Part IIA will not be applicable where the Environment Agency have the ability to remedy contamination arising from the breech of a process Authorisation under the above legislation.

Waste management licensing. (Part II EPA90)
Part IIA will not normally apply where contamination is arising from land subject to a waste management licence.

Water Resources Act 1991
This act gives the Environment Agency powers to control pollution of controlled waters. The application of either regime to any site will need to be determined after consultation between the Local authority and the Environment agency.

1.3 The Definition of Contaminated Land.

Contaminated Land is defined in Section 78A(2) of the Environmental Protection Act 1995 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*
>
> *1. Significant harm is being caused or there is a significant possibility of such harm being caused*
>
> *Or*
>
> *2. Pollution of controlled waters is being, or is likely to be, caused."*

This definition includes a number of terms that are further defined in the guidance, and these introduce further concepts that must be understood if the definition of contaminated land is to be accurately applied to any particular site.

Note:
The definition ensures that only land where contamination is causing unacceptable risks to human health or the wider environment is treated as contaminated land. It does not seek to instigate remedial action against all land where contamination is present.

"Significant Harm"

'Harm' is 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."*

"Significant harm" is defined in Table A, Appendix A.

The statutory guidance provides that unless significant harm is being caused, or there is significant possibility of significant harm being caused, land is not to be classed as contaminated.

"Significant possibility of significant harm"

In deciding whether the possibility of harm being caused is significant the Council must take into account the following factors

1. The nature and degree of harm
2. The susceptibility of the receptors
3. The timescale in which the harm might occur.

The conditions under which significant possibility of significant harm may occur are outlined in Table B, Appendix A.

"Suitable for Use"

The legislation takes a pragmatic approach by concentrating on land posing unacceptable risks in its current use, by making land suitable for any likely new use when planning permission is granted, and by limiting remediation work to that necessary to prevent unacceptable risks given such current or future uses. Remediation requirements must make land suitable for such uses and not necessarily free of all

contamination.

How is Contaminated Land Identified?

When deciding whether land is contaminated, the Council must identify a significant 'pollutant linkage'. A pollutant linkage means a relationship between a contaminant, a pathway and a receptor.
These terms are not defined by statute. The following meanings are set out in statutory guidance:

1. **Contaminant** must be a substance which is in, on or under land and which has the potential to cause harm or to cause pollution of groundwater's.

2. The **receptor** must be either:

    - a living organism, a group of living organisms, an ecological system or a piece of property which is listed in Table A, Appendix A and which is being (or could be) harmed by a contaminant; or
    - controlled waters which are being (or could be) polluted by a contaminant.

    Note: The Council is advised to disregard any receptor not likely to be present given the current use of any land under investigation. The current use of a site is deemed to include any use currently made, or likely to be made, that is consistent with existing Planning permission. However 'current use' does include any likely informal recreational use of the land.

3. The **pathway** must be one or more routes by which a receptor is being (or could be) exposed to or affected by a contaminant.

Examples:

1. Landfill gas (the contaminant) produced in a former unlicensed tip might be causing harm to a nearby dwelling (the receptor) as a result of the gas migrating through fissured chalk (the pathway).

2. Petrol (the contaminant) that leaked from storage tanks into underlying aquifers used for drinking water extraction. In this example the movement of groundwater represents both the pathway as the means by which petrol is moved from its original site and the receptor as the material that is suffering harm.

1.4 Development of the Strategy

The Council is obliged by section 78B(2) of Part IIA to act in accordance with any statutory guidance issued by the Secretary of State for identifying and regulating contaminated land. The statutory guidance imposes a duty on local authorities to take a strategic approach when identifying land that may merit detailed inspection. This approach must:

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

The Council's strategy is required to reflect local circumstances including:

- available evidence of significant harm or pollution of controlled waters
- the prevalence of each defined receptor within the District
- the extent to which these receptors are likely to be exposed to defined contaminants
- available information on land contamination
- the history, scale and nature of industrial or other activities which may have contaminated the land in the District
- the nature and timing of past redevelopment within the District
- the extent to which remedial action has already been taken to deal with land contamination or is likely to be taken as part of impending redevelopment
- the extent to which other regulatory authorities might consider harm is being or may be caused to particular receptors, or pollution of controlled waters is being or may be caused, within the District

2. CHARACTER OF THE LOCAL AUTHORITY'S AREA

Across the United Kingdom there are marked differences in geography, industrial activity and prevalence of vulnerable 'receptors' such as protected wildlife and water resources. The manner in which contaminants have been deposited, have moved and have affected (or threatened) vulnerable receptors can vary even between localities a few miles apart. The Council must therfore carefully consider the character of the Borough when developing priorities and objectives for inspecting land that may be contaminated.

2.1 GEOGRAPHICAL LOCATION

Hastings Borough is an historic seaside resort on the Sussex coast, located 65 miles to the south east of London. The Borough is largely built up and situated at the seaward edge of the High Weald Area of Outstanding Natural Beauty, rising from the sea up to The Ridge on the northern edge of the town. The open undeveloped coastal cliffs of the Hastings Country Park and the High Weald countryside beyond provide an attractive natural backdrop to the town.

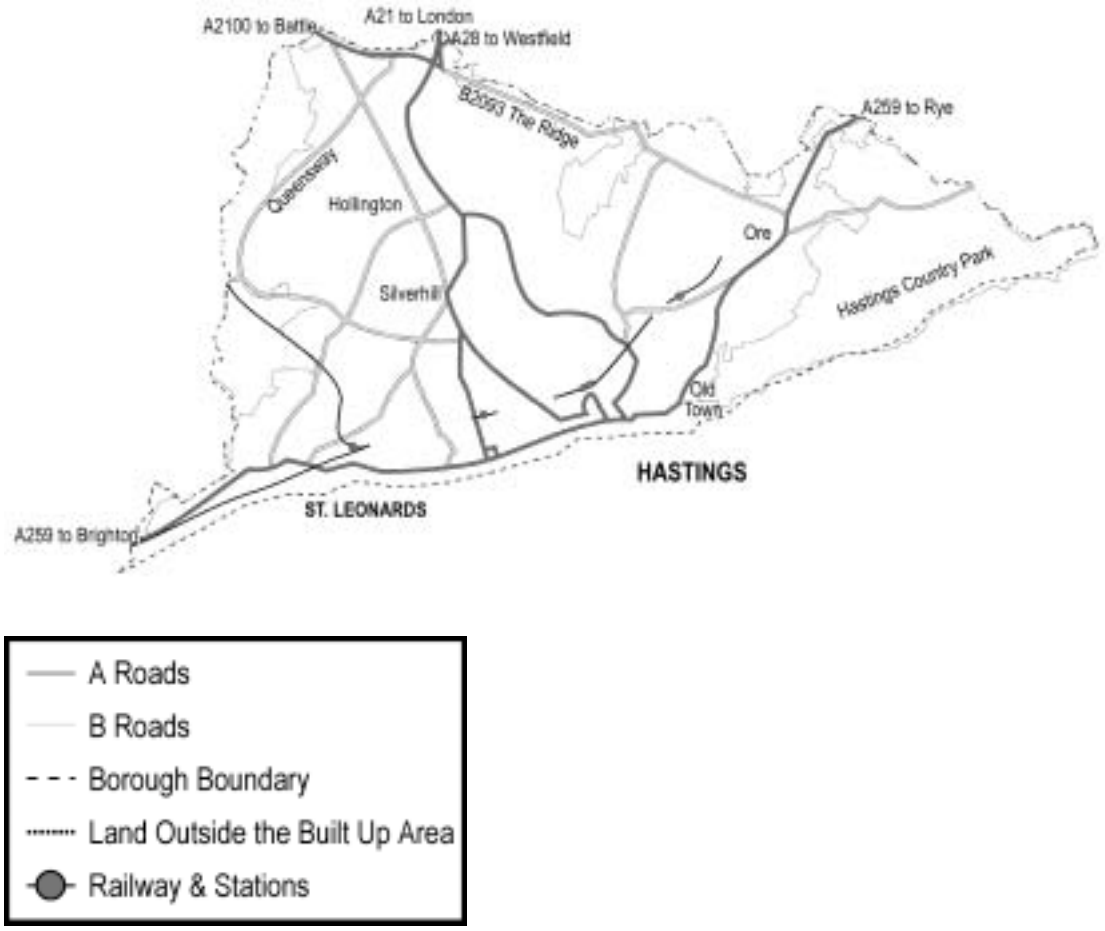

Figure 1: Map of Hastings Borough

2.2 BRIEF DESCRIPTION / HISTORY

Although Hastings is associated with 1066, the battlefield itself is located six miles to the north west of the town at Battle – but the 1066 connections are strong, with the remains of the Norman Castle on West Hill. Medieval development occurred in the steep sided valley between the East and West Hills, an area now known as the Old Town. Further large-scale expansion of the town occurred with the arrival of the railway in 1849. With the Old Town already tightly constrained by its surrounding hills, Victorian builders looked to the Priory Valley to the west for further expansion, and much of the present day town centre was laid out during the latter part of the 19th century.

The 20th century saw the town expand further, in particular, recent growth and expansion has been sought in the Town Development Area located to the north-west of the Borough. The 1970s and 1980s saw these previously undeveloped 'greenfield' sites undergo major change with the construction of new housing and industrial areas in a successful bid to achieve today's more balanced population age structure and manufacturing job base. This was to the extent that comparatively little land now remains to be developed within the built-up area of the town.

2.3 SIZE

Hastings Borough has an area of approximately 2,970 hectares. Its outward growth is constrained at the north by the High Weald Area of Outstanding Natural Beauty, to the east by the Hastings Country Park and to the west by the Combe Haven Valley Site of Special Scientific Interest.

2.4 POPULATION DISTRIBUTION

The town of Hastings grew very rapidly during the second half of the 19th Century. However, for the first 60 years of the 20th Century the population was virtually static except for the wartime evacuation. Mid 1999 resident population estimates indicate that the total population stood at 83,002.

2.5 LAND OWNED BY THE BOROUGH COUNCIL

The Borough Council has substantial land holdings within the Borough totalling upward of 900 hectares. Approximately 300 hectares is owned at Place Farm and the Country Park, and 200 hectares of other open space distributed across the Borough. Upper Wilting Farm and Pebsham Tip situated on and outside of the Borough boundary encompass a combined 224 hectares and the foreshore extends to108 hectares.

2.6 CURRENT LAND USE CHARACTERISTICS

Within the Town Development Area, the primary land use is residential. Hastings has five designated industrial estates and several smaller industrial areas, which in June 1999 were found to occupy 66 hectares of land. There is some opportunity for brownfield development at the former power station site of Broomgrove, along with a number of other considerably smaller previously developed sites. However, as a result of the limited number of inward development opportunities and the poor strategic road and rail links, greenfield sites are being assessed for their development potential.

2.7 PROTECTED LOCATIONS

Hastings, like many other towns and cities throughout Britain, supports a rich variety of wild plants and animals. It is a small Borough with a finite resource of valuable and fragile habitats and informal open space. This richness of biodiversity is of great importance and its value is recognised through the statutory designation of these areas as:

- Country Parks – The Hastings Country Park is situated on the eastern outskirts of Hastings and covers some 245 hectares, including one of the least spoilt stretches of Sussex Coast.

- Sites of Special Scientific Interest (SSSI's) – English Nature has designated 3 such areas within the Borough, Hastings Cliffs to Pett Beach SSSI (300 hectares), Combe Haven SSSI (156 hectares), and Marline Valley Woods SSSI (55 hectares).

- The High Weald Area of Outstanding Natural Beauty has been designated by the Countryside Agency as being of national importance. It closely follows the Hastings built-up area boundary and covers most of the northern edge of the Borough, also encompassing the 245 hectares of Hastings Country Park.

- Local Nature Reserves – encompass 94 hectares of the Borough and include Filsham Reedbeds LNR, Marline Valley Woods LNR and St. Helens Wood LNR have been declared under the National Parks and Access to the Countryside Act 1949.

- The Nature Conservation Strategy has identified 30 sites representing valuable wildlife areas within the urban environment and has therefore been given non-statutory recognition as Sites of Nature Conservation Importance (SNCI's).

2.8 Hydro geological conditions

As part of the implementation of the strategy a full understanding of the hyrogeological environment of the Borough will need to be developed by the Council.

2.9 Geological conditions

The borough has purchased the British geological societies survey of the area so already has detailed knowledge of this aspect of the strategy. As implementation of the strategy proceeds it will consider the need to purchase this information in digital format to allow its use within the G.I.S. system.

2.10 Known Information on Contamination / Action taken previously.

Within the council there is no central identification or collation of existing information with regard to potentially contaminated land. The Borough has a history of dealing with sites on an adhoc basis as and when information regarding contaminants arose – usually as a consequence of the redevelopment process. In this approach it is typical of many Councils. As a result it is now clear that information may be held by the Council e.g. within Building Control, Planning or Environmental Health records, but that the information is held in such a manner that identification of affected sites or the information regarding site conditions is not easily possible.

Not withstanding the above some sites can be identified as having had contaminants present in the past. Wherever possible these will be collected for incorporation into the inspection programme as the standards of remediation previously carried out may not have been to currently acceptable levels.

2.11 Industrial history.
There is a degree of information regarding the industrial heritage of the borough. This relates to items such as mineral extraction and iron manufacture at various sites in the town. However there is no dominant industrial heritage to the extent that it has any significant bearing on the nature of the strategy being proposed in this document. The Historical information that is available regarding site-specific commercial land use of the town is detailed and can be considered when the issue of contaminants is being dealt with.

2.12 Conclusions.
The borough is a comparatively very small one, with, by comparison with other areas of the country, little industrial development. It has developed as a local centre largely from the mid 19th century onwards. This pattern of development leads to the conclusion that, with regard to the identification of land that may be contaminated there is no benefit in treating any part of the borough with greater priority than any other.

3. AIMS AND OBJECTIVES OF THE INSPECTION STRATEGY

3.1 Aims of the Strategy

The Councils aims are:

- To ensure compliance with and the enforcement of statute.
- To identify actual and potential contaminated sites within the District by rational, ordered and efficient investigation, to remove unacceptable risk to human health and the environment.
- To ensure that where redevelopment takes place any land contamination is dealt with effectively
- To ensure that procedures are in place for the open provision of information to the public.
- To address any liability issues associated with the councils existing and former land holdings and or occupation. To ensure that the Council is fully aware of any new liability associated with any land acquisition.
- To ensure that no development takes place that, by introducing a pathway or a receptor into the environment, creates new sites designated as contaminated land.

3.2 The Councils Objectives

The main objective is to provide an improved system for the identification and remediation of land where contamination is causing unacceptable risks to human health and the wider environment, assessed in the context of the current use and circumstances of the land.

The Council's Detailed Objectives are to:

- Stringently prioritise resources for the investigation of potential contaminated sites by relating it to the potential risk to any receptor.
- Identify all receptors (as set out in Table A, Categories of Significant harm) and all controlled waters within the District, by means of local knowledge and locally held plans and contact with other agencies such as EA, MAFF, English Nature etc.
- Identify as much information as reasonably possible relating to the possible presence of contaminants on sites, and their effects on potential receptors.
- Complete an assessment of all actual and potential contaminated land within the district where the Council might have responsibilities by virtue of its current or former ownership or occupation, making use of historic records, local plans etc. To identify the potential liabilities on the council if any such sites should be identified.
- Complete an assessment of all actual and potential contaminated sites not owned by the Council. Owners/Occupiers of any such sites shall be contacted with information on the new regime and what it means for them, also requesting any additional information with regard to the particular site;

- To ensure that no planning application on a potentially contaminated site is approved unless a satisfactory assessment of the contaminated land status of the site has been carried out by the applicant. To ensure that any necessary conditions are complied with prior to the commencement of any such development

- Consider all available evidence that significant harm or pollution of controlled waters is actually being caused

- Evaluate the information gained from the assessment of actual and potential contaminated sites and prioritise them in accordance with their individual risk;

- Justify inspection of particular areas established as contaminated sites under Part IIA;

- To decide, after consultation, what remediation is required in relation to the site, either through agreement with the appropriate persons or by serving a remediation notice;

- Establish a liaison with other authorities and agencies for information exchange;

- Make information on all regulatory action taken by the Council on contaminated land available to the public by way of a public register.

- Liase with Rother District Council to ensure that all cross boundary issues relating to this strategy are adequately dealt with.

- The council recognises that the implementation of this strategy may take a number of years to complete. The strategy will also need to be reviewed in the face of changing circumstances. Notwithstanding this it will ensure that where there is available information indicating that land is in such a condition that it may fall into the definition of statutorily contaminated land it will assess the situation and consider the use of the powers in part 2A regardless of any other priorities within the strategy.

4.0 PROCEDURES

4.1 Internal management arrangements for inspection and identification of contaminated land.

General – Roles and Responsibilities

The council has decided that Regeneration and Planning Directorate shall act as the lead department in the implementation of this strategy. The Environmental Protection section of that directorate shall be responsible for the day-to-day implementation of the strategy and for the assessment of potentially contaminated land. They shall also be responsible for the Remediation process for any land identified as contaminated land where any of the alternative means of securing the treatment of that land are not deemed appropriate. All necessary powers of the council have been delegated to Officers in this section.

4.2 Detailed arrangements and procedures.

4.2.1 For considering land for which Hastings Borough Council may have responsibility because of our current or former ownership or occupation of that land.

We are aware of the land which the Council currently owns or occupies**.** This information is already contained on the G.I.S.

We can readily identify all land that we used to own or occupy back until 1974 and we have a good level of information on such land from about 1960**.** Attempts will be made to identify any other areas of land owned or occupied by the council or its predecessors, prior to this date using local knowledge.

All sites so identified will be assessed in the same manner as any other site for the possible existence of a pollutant linkage. This assessment will occur as soon as the information relating to land ownership and possible contaminants is available regardless of the timing of any other Borough wide assessment on other sites.

Dependant on the results of this process the council will consider the use of consultants to determine if any such land should be regarded as Contaminated land and if so what, if any liability is appropriate and or what remediation actions are appropriate.

4.2.2 Obtaining and evaluating information on actual harm or pollution of controlled waters.

The council has already identified close links with the relevant local officers of the Environment agency. The Agency has supplied initial details of all controlled waters within the borough and its near surroundings. This information will be taken into account as sites with former potentially contaminative uses present are identified and the possibility of the prescance of relevant pathways will be considered in conjunction with further discussion with the environment agency. In addition to the above an early discussions will take place with regard to identifying any sites where significant harm or pollution of controlled waters is actually being caused.

4.2.3 Identifying Receptors and assessing their likely exposure to Contaminants

The Council has already identified the locations of most receptors across the Borough. Much of this information is already stored on its G.I.S. However some further work is required to input some categories of receptors.

The table below outlines the current extent of GIS stored receptor information and the areas where more work is required.

CONTAMINATED LAND STRATEGY
INFORMATION ON RECEPTORS

	Required to be digitised	Already digitised
Residential land with gardens	yes*	
Residential land without gardens	yes	
Allotments		yes
Schools and nurseries	yes	
Recreational land		
parks		yes
playing fields		yes
open space		yes*
Commercial / industrial		
estates		yes
individual buildings	yes	

SSSI's		yes
National nature reserves	N/A	
Marine nature reserves	N/A	
Areas of special protection of birds	N/A	
European sites		
Special area of conservation	yes*	
Special protection areas	N/A	
Candidate SACs and SPAs	N/A	
Ramsar sites	N/A	
Nature reserves		yes
Sites of nature conservation interest (not on list)		yes
Bio-diversity (not on list)		yes

Ancient Monuments		yes
Sites of archaeological importance		yes
Other buildings	?	

Crops	yes*
Produce	yes*
Livestock	yes*
Other animals	yes
Wild animals subject to shooting / fishing	yes

Surface water	yes
Groundwater	yes
Water abstraction	yes
Source protection zones	yes
Water quality data	yes

Notes:

Residential Land: there are approximately 35,000 buildings in the town, most of which Have gardens. The long term aim is to digitize all the buildings in the town individually for planning
and other uses. If the town was digitized in blocks, there would be about 250 blocks.

Open Space: Most of the general Open Space in the borough is on the Local Plan, this should be looked at to decide if other open areas could be included.

We have one ***Special Area of Conservation***, the Country Park Cliffs

Crops: From aerial photographs, there are about 17 fields at Place Farm which appear to be crops.
There are also crop fields on the edge of the borough beyond Queensway and at Upper Wilting Farm.
Most of Pebsham Farm fields are beyond the borough boundary.
There are several fields along the edge of The Ridge which appear to have been cropped.
Most of the rest of the fields in the borough appear to be either "set aside" or marsh land.

Produce: would assume to be nurseries or pick your own type fields, there are no known such sites in the Borough.

Livestock: Place Farm have a herd of cattle.
Upper Wilting Farm may have some livestock.
There may be livestock at Tilekiln Farm, Fairlight Road.

4.2.4 Obtaining and evaluating existing information on the possible prescance of contaminants and their effects.

The issue of the identification of contaminated land has been one that has been under discussion for at least 10 years. As a result this council along with many others has carried out a degree of work towards the task of identifying such land. In Hastings this work took the form of detailed searches of a number of documents that may have identified former uses of land that had the potential to leave behind some degree of contamination. The current Borough archivist has assessed the results of this work as to its potential value with regard to the strategy. Comments made are as follows.

The sources that have been searched seem to be:

Pikes and/or Kellys directories for Hastings and St Leonards: 1862, 1887, 1899, 1915, 1927, 1938, 1950, 1962 and 1974.
Thompsons Directory: 1992
Ordnance survey maps, several editions including the first edition 1:2500 maps 1873, later editions to 1938 and editions of the 1:1250 scale maps from 1954.

The businesses section of each of the directories has been searched for businesses which may have used or created contaminants. A sheet has been filled out for each of them which gives:

Address of the site
OS map sheet number and area of the site in hectares (the sites have been plotted on OS sheets)
Reference of any contemporary map.
The nature of business and year of directory it appears in.

There are also some sheets filled out for known landfill sites. It is uncertain how this information was collected.

The information that has been extracted from the directories appears to be complete and accurate. However, the directories have only been searched at roughly twelve to fifteen year intervals which may mean that some short-lived businesses have been missed.

(N.B. The above comment regarding the use of directories at intervals is equally valid for the use of maps and reflects an acknowledged difficulty in such desk-based studies.)

In the light of the above it is proposed that this database be used as the basis on which this council will identify the possible prescance of contaminants.

The previous search has identified approximately 500 sites, however examination of this data notes that it includes former business uses that do not include any obvious contaminative potential, e.g. there are entries for blacksmiths, for modern UPVC window manufacturers, for heating engineers and for ice cream manufacturers. It is therefore proposed that this list of sites be compared to the DOE Industry profiles; any identified site that falls within the list will be regarded as being of a potentially contaminative use. The DOE industry profiles can be found at Appendix B Those sites that are not on the list will be given individual consideration and treated as potentially contaminated if their specific use justifies that comment. All such contaminative uses so identified will be entered on to the GIS system.

Methods for the evaluation of the effects of contaminants are currently in a state of some uncertainty. In the past a series of guideline values from various sources have been used and or misused. The DETR has promised new guidance on such matters but this has not yet been published and it is understood that when it is it may not cover the full range of contaminative effects that may be envisaged. Hastings Borough council will undertake to use the best available guidance with regard to the site in question that is available at the time of the assessment.

4.2.5 Liaison with Statutory Bodies

The Council has identified the following bodies as potentially having a role in the identification of contaminated land.

Environment Agency, English Nature, Ministry of Agriculture Fisheries and Food, English Heritage, Rother District Council, and East Sussex County Council.

As a result of the preparation of the strategy a large amount of information regarding, particularly, receptors and pathways has already been received from these bodies.

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This exchange of information will be an ongoing process with the probability of greater levels of information exchange being required as individual sites are identified for investigation.

4.2.6 Liaison with, and responding to Information from, the Owners or Occupiers of land, and other relevant parties

The Regulations lay down limited criteria for statutory communication with Owners or Occupiers of land. The Council will as a minimum comply with these at all times.

Where the Council has identified land as possibly being contaminated land it will, before any further investigation, liase with the Owners and Occupiers with a view to ascertaining if they are aware of any relevant information regarding the condition of the land.

Where information regarding the condition of land is received it will be evaluated and acted upon in accordance with the results of that evaluation.

4.2.7 Responding to Information or Complaints from Members of the Public and Others

Information relating to any aspect of contaminated land, wherever it is received from will be sent to the Environmental Protection section of the Planning and Regeneration Directorate, who will be responsible for recording it and for determining the appropriate level of response to it.
It must be noted that the legislation relating to contaminated land contains within it a number of significant time consuming technical and legislative stages which must all be fulfilled before any successful remediation can be achieved. This requirement may well conflict with the demands of local communities.
Within the bounds of our legal requirements we will respect the confidentiality of all sources of information. Given the potential for malicious information within this field Anonymous information will not be accepted unless there are sound reasons why such anonymity is appropriate.

4.2.8 Planning and reviewing a programme for the inspection of particular areas of land.

Appendix C contains details of all those actions necessary to complete the strategy successfully. Given that at this stage it is not clear how many sites are likely to require investigation as contaminated land then the timescales indicated must be subject to review as implementation of the strategy proceeds.
Many areas of the country lend themselves to implementing a programme on an area-by-area basis based for example on former development patterns or current population densities. It is considered that there is no reason for any such division in this borough and therefore in all its aspects implementation of the strategy will occur on a borough wide basis with sites being prioritised in an appropriate manner.

4.2.9 Carrying out the detailed inspection of particular areas of land.

The aim of inspection is to determine if any land appears to be Contaminated Land as defined in the legislation.
When inspecting land for contamination the Council will follow the approach set out in this strategy and act in accordance with the legal requirements of Part IIA and its accompanying statutory guidance
There is a large range of non-statutory documents which the Council may take into account in the determination that land is contaminated. These are constantly evolving, therefore rather than committing to the use of any specific current document the council will undertake to ensure the use of the relevant documents available at the relevant time.

If it appears that any land in Rother District council may require investigation because that land may be affecting receptors within Hastings, the Council will inspect that land in consultation with Rother District Council.

Detailed inspection may include:

- Collating and assessing documents and information from other organisations
- Visiting land to make visual inspections
- Sampling of that land to the relevant level of detail

Where necessary inspections of land will be conducted using statutory powers of entry. Before doing so, however, the Council will satisfy itself on the basis of information already obtained that:

1. There is a reasonable possibility that a pollutant linkage exists on the land, and
2. in the case of proposed intrusive investigation there is :
    - a likelihood that a contaminant is actually present; and
    - knowledge or a likelihood that a receptor is present, given the current use of the land

The Council will not conduct an inspection by means of intrusive investigation if:

- it has already been provided with adequate and satisfactorily detailed information on the condition of the land on which to base determination of whether the land is contaminated for the purposes of Part IIA; or
- a person offers to provide such information within a reasonable and specified time, and this information is provided within that time.

Any intrusive investigations will be carried out using appropriate technical procedures and taking all reasonable precautions to avoid harm, water pollution or damage to natural resources or features of historical or archaeological interest.

If at any stage the Council considers, on the basis of information from a detailed inspection, that there is no longer a reasonable possibility that a particular pollutant linkage exists, the Council will cease detailed inspection of that linkage.

The following steps may form part of an inspection:

- Liaison with owners, appropriate persons, Environment Agency, English Nature, English Heritage and any other relevant bodies to obtain available information.

- Preparatory research on the history of the site and its environment before the visit such as viewing maps, Part A (IPC) Processes, Part B Processes, Landfill sites and other documentary sources to identify past uses.

- Consider relevant Codes of Practice and other documentation available for identification of contaminated land

- The visual identification of possible contaminants on the site visit i.e. geology, soil type and vegetation of the general area of the site,

- Consideration of whether intrusive sampling is necessary (for example by exploratory excavations). The local authority will only carry out an intrusive investigation in accordance with appropriate technical procedures for such an investigation. The local authority will ensure that it

takes all reasonable precautions to avoid harm, water pollution or damage to natural resources or features of historical or archaeological interest that might be caused as a result of the investigation. The Council will notify any area of scientific interest (SSSI) and consult English Nature on any action which would be required to be carried out by the owner or occupier of the land that may require the consent of English Nature under Section 28 of the Wildlife and Countryside Act 1981.

- The Council will not carry out an inspection using statutory powers of entry that involves intrusive investigation when detailed information has been provided on the condition of the land by Environmental Agency or some other person (i.e. the owner of the land), which provides an appropriate basis for the Local Authority to determine whether the land is contaminated in accordance with the requirements of the guidance set out in Chapter B of Circular 02/2000 Contaminated Land, or a person offers to provide such information within a reasonable and specified time and the information is then provided in that time.

Health & Safety Issues

- The Council will follow good technical practice in carrying out, and recording, detailed inspection work. The Council will take appropriate steps to ensure such work does not harm people (site workers, local residents and the general public) or damage the wider environment.

- If the history of the site indicates that it may pose threats to personal safety, the Council will undertake the necessary procedures regarding this matter and have regards to documentation such as BS 5930 (1981) regarding mining, quarrying and waste disposal sites and/or HSE HS(G)66 Protection of workers and the general public during the development of contaminated land (1991) (HMSO).

- If at any stage the Council considers, on the basis of the information obtained from a detailed inspection, that there is no longer a reasonable possibility that a pollution linkage exists on the land it will not carry out any further detailed inspection for that pollutant linkage.

Land that may be a Special Site

If the Council has determined land to be contaminated and it also falls within one or more of the 'special site' descriptions prescribed in the regulations in Part IIA then the Council will, after due consultation with the Environment Agency, designate the land as a special site and notify the Agency accordingly. Assuming the Environment Agency agrees with this determination, the Agency will then become the enforcing authority for that land. The Council will endeavour to advise and assist the Agency upon request, for example when the Agency prepares remediation proposals. In the event that the Council and the Agency cannot agree on designation of a special site, the matter will be referred to the Secretary of State for decision.

Where the Environment Agency is to carry out an inspection on behalf of the Council, the Council will authorise a person nominated by the Agency to exercise the powers of entry conferred by section 108 of the Environment Act 199S. Before the Council gives such authorisation, the Environment Agency will have to satisfy the Council that the conditions for the use of statutory powers of entry set out in the Circular 02/2000 section B paragraphs B.22 to B.25 of Part IIA are met.

Frequency of Inspections

The Council from time to time will inspect its area for the purpose of identifying contaminated land (section 78B(1)). By doing this the authority will act in accordance with the statutory guidance set out in Circular 02/2000 Chapter B of Annex 3.

Records of the determination that land is contaminated land

The Council will prepare a written record of any determination that particular land is contaminated. The record will include:-

- Identify of site/owner/occupier
- Date of sampling
- A description of the particular significant linkage, identifying all three components - pollutant, pathway and receptor
- A summary of the evidence upon which determination is based
- A summary of a relevant assessment of this evidence
- A summary of the way in which the authority considers that the requirements of Chapter A of the circular have been satisfied.

5. General Liaison and Risk Communication Strategies.

The Council recognizes that Contaminated Land issues are complex and have the potential to give rise to conflicting views held by the different parties involved in the process. It also recognizes that the timescales (either arising from the statutory guidelines or arising from the robust level of site investigation required), built into the Contaminated Land regime might affect the perception of the strategy.
As the implementation of the strategy proceeds the council will develop a communications protocol based on the principles detailed in the guidance from the Scotland and Northern Ireland Forum for Environmental Research entitled "Communicating Understanding of contaminated Land Risks."

6. Reviewing the strategy.

This strategy will be reviewed every 4 years as a minimum. An earlier review will be conducted if:-

a. there is any change in the legislation;
b. there is any change in the statutory guidance issued by the Secretary of State;

The aim will be to conclude reviews within 6 months of any such change occurring.

Triggers for undertaking inspection of land outside the strategy programme.

The strategy has recognised that there will be times when Inspection of land under Part IIA will need to occur other than as part of the strategy programme. Possible triggers for the need to re inspect include the following.

a. proposed or unplanned changes in the use of the land (e.g. changes in the local plan, persistent, unauthorised use of land by children or other members of the public);

b. unplanned events (e.g. localised flooding, accidents, fires, spillages; where consequences cannot be addressed through other relevant environmental protection legislation);
c. reports of localised health effects relating to a particular area of land.
d. reports of unusual or abnormal site conditions from any source which are verified;
e. new information received from any other statutory body; owners/occupiers or other interested parties
f. New information or guidance on contaminants, pathways, receptors.
g. In support of voluntary remediation when this is offered before the council has inspected the land itself.

The aim will be to conclude reviews within 3 months of any of the above events.

7.0 Information Management.

Identifying, prioritising and inspecting land that may be contaminated will generate large quantities of information, often based on (or referenced to) maps. Our system for information management must be capable of receiving, storing, processing and analysing such data in a suitable format without unnecessary duplication of effort or additional manipulation.

The strategy has already recognised that much of the information relating to receptors is already held within the councils existing G.I.S. It is most likely that this system will become a key part of the information management requirements of the strategy. However implementation of the strategy will also involve tasks relating to the following areas

- The construction of a database of information.
- The reporting of information either for internal purposes, or to the Environment Agency or to third parties either as a result of the register of contaminated land or as a consequence of the Environmental information regulations.
- The prioritisation and risk assessment of potentially contaminated sites.
- The ability to map information relating to sites.

The existing G.I.S. cannot fulfil all these functions. Therefore consideration will have to be given to the purchase of software that can carry out such tasks. However at the time of writing some of this software has yet to be adequately developed- this is particularly the case with regard to the prioritisation and risk assessment of sites with pathways identified. For this reason and because the number of sites that may require investigation is currently unknown the council does not intend to purchase further software until it the size of the task facing it is clearer and until such products are available and of proven quality.

- **APPENDIX A**

TABLE A - CATEGORIES OF SIGNIFICANT HARM

Type of Receptor	Description of harm to that type of receptor that is to be regarded as significant harm
1 Human beings	Death, disease, serious injury, genetic mutation, birth defects or the impairment of reproductive functions. For these purposes, disease is to be taken to mean an unhealthy condition of the body or a part of it and can include, for example, cancer, liver dysfunction or extensive skin ailments. Mental dysfunction is included only insofar as it is attributable to the effects of a pollutant on the body of the person concerned. In this Chapter, this description of significant harm is referred to as a "human health effect".
2 Any ecological system, or living organism forming part of such a system, within a location which is: • an area notified as an area of special scientific interest under section 28 of the Wildlife and Countryside Act 1981; • any land declared a national nature reserve under section 35 of that Act; • any area designated as a marine nature reserve under section 36 of that Act; • an area of special protection for birds, established under section 3 of that Act; • any European Site within the meaning of regulation 10 of the Conservation (Natural Habitats etc) Regulations 1994 (i.e. Special Areas of Conservation and Special Protection Areas); • any candidate Special Areas of Conservation or potential Special Protection Areas given equivalent protection; • any habitat or site afforded policy protection under paragraph 13 of Planning Policy Guidance Note 9 (PPG9) on nature conservation (i.e. candidate Special Areas of Conservation, potential Special Protection Areas and listed Ramsar sites); or • any nature reserve established under section 21 of the National Parks and Access to the Countryside Act 1949.	For any protected location: • harm which results in an irreversible adverse change, or in some other substantial adverse change, in the functioning of the ecological system within any substantial part of that location; or • harm which affects any species of special interest within that location and which endangers the long-term maintenance of the population of that species at that location. In addition, in the case of a protected location which is a European Site (or a candidate Special Area of Conservation or a potential Special Protection Area), harm which is incompatible with the favourable conservation status of natural habitats at that location or species typically found there. In determining what constitutes such harm, the local authority should have regard to the advice of English Nature and to the requirements of the Conservation (Natural Habitats etc) Regulations 1994. In this Chapter, this description of significant harm is referred to as an "ecological system effect".
3 Property in the form of: • crops, including timber; • produce grown domestically, or on allotments, for consumption; • livestock; • other owned or domesticated animals; • wild animals which are the subject of shooting or fishing rights.	For crops, a substantial diminution in yield or other substantial loss in their value resulting from death, disease or other physical damage. For domestic pets, death, serious disease or serious physical damage. For other property in this category, a substantial loss in its value resulting from death, disease or other serious physical damage. The local authority should regard a substantial loss in value as occurring only when a substantial proportion of the animals or crops are dead or otherwise no longer fit for their intended purpose. Food should be regarded as being no longer fit for purpose when it fails to comply with the provisions of the Food Safety Act 1990. Where a diminution in yield or loss in value is caused by a pollutant linkage, a 20% diminution or loss should be regarded as a benchmark for what constitutes a substantial diminution or loss. In this Chapter, this description of significant harm is referred to as an "animal or crop effect".
4 Property in the form of buildings. For this purpose, "building" means any structure or erection, and any part of a building including any part below ground level, but does not include plant or machinery comprised in a building.	Structural failure, substantial damage or substantial interference with any right of occupation. For this purpose, the local authority should regard substantial damage or substantial interference as occurring when any part of the building ceases to be capable of being used for the purpose for which it is or was intended. Additionally, in the case of a scheduled Ancient Monument, substantial damage should be regarded as occurring when the damage significantly impairs the historic, architectural, traditional, artistic or archaeological interest by reason of which the monument was scheduled. In this Chapter, this description of significant harm is referred to as a "building effect".

Source: DETR Circular 02/2000 Annex A Part 3, Table A

TABLE B - SIGNIFICANT POSSIBILITY OF SIGNIFICANT HARM

Descriptions Of Significant Harm (As Defined In Table A)	**Conditions For There Being A Significant Possibility Of Significant Harm**
1 Human health effects arising from • the intake of a contaminant, or • other direct bodily contact with a contaminant	If the amount of the pollutant in the pollutant linkage in question: • which a human receptor in that linkage might take in, or • to which such a human might otherwise be exposed, as a result of the pathway in that linkage, would represent an unacceptable intake or direct bodily contact, assessed on the basis of relevant information on the toxicological properties of that pollutant. Such an assessment should take into account: • the likely total intake of, or exposure to, the substance or substances which form the pollutant, from all sources including that from the pollutant linkage in question; • the relative contribution of the pollutant linkage in question to the likely aggregate intake of, or exposure to, the relevant substance or substances; and • the duration of intake or exposure resulting from the pollutant linkage in question. The question of whether an intake or exposure is unacceptable is independent of the number of people who might experience or be affected by that intake or exposure. Toxicological properties should be taken to include carcinogenic, mutagenic, teratogenic, pathogenic, endocrine-disrupting and other similar properties.
2 All other human health effects (particularly by way of explosion or fire)	If the probability, or frequency, of occurrence of significant harm of that description is unacceptable, assessed on the basis of relevant information concerning: • that type of pollutant linkage, or • that type of significant harm arising from other causes. In making such an assessment, the local authority should take into account the levels of risk which have been judged unacceptable in other similar contexts and should give particular weight to cases where the pollutant linkage might cause significant harm which: • would be irreversible or incapable of being treated; • would affect a substantial number of people; • would result from a single incident such as a fire or an explosion; or • would be likely to result from a short-term (that is, less than 24-hour) exposure to the pollutant.
3 All ecological system effects	If either: • significant harm of that description is more likely than not to result from the pollutant linkage in question; or • there is a reasonable possibility of significant harm of that description being caused, and if that harm were to occur, it would result in such a degree of damage to features of special interest at the location in question that they would be beyond any practicable possibility of restoration. Any assessment made for these purposes should take into account relevant information for that type of pollutant linkage, particularly in relation to the ecotoxicological effects of the pollutant.
4 All animal and crop effects	If significant harm of that description is more likely than not to result from the pollutant linkage in question, taking into account relevant information for that type of pollutant linkage, particularly in relation to the ecotoxicological effects of the pollutant.
5 All building effects	If significant harm of that description is more likely than not to result from the pollutant linkage in question during the expected economic life of the building (or, in the case of a scheduled Ancient Monument, the foreseeable future), taking into account relevant information for that type of pollutant linkage.

Source: DETR Circular 02/2000 Annex A Part 3, Table B

Appendix B.

DOE Industry Profiles

Airports
Animal and animal products processing works
Asbestos manufacturing works
Ceramics, cement and asphalt manufacturing works
Chemical works: coating (paints and printing inks) manufacturing works
Chemical works: cosmetics and toiletries manufacturing works
Chemical works: disinfectants manufacturing works
Chemical works: explosives, propellants and pyrotechnics manufacturing works
Chemical works: fertiliser manufacturing works
Chemical works: fine chemicals manufacturing works
Chemical works: inorganic chemicals manufacturing works
Chemical works: inoleum, vinyl and bitumen-based floor covering manufacturing works
Chemical works: mastics, sealants, adhesives and roofing felt manufacturing works
Chemical works: organic chemicals manufacturing works
Chemical works: pesticides manufacturing works
Chemical works: pharmaceuticals manufacturing works
Chemical works: rubber processing works (including works manufacturing types or other rubber products)
Chemical works: soap and detergent manufacturing works
Dockyards and dockland
Engineering works: aircraft manufacturing works
Engineering works: electrical and electronic equipment manufacturing works (including works manufacturing equipment containing PCB's)
Engineering works: mechanical engineering and ordnance works
Engineering works: railway engineering works
Engineering works: shipbuilding, repair and shipbreaking (including naval shipyards)
Engineering works: vehicle manufacturing works
Gas works, coke works and other coal carbonisation plants
Metal manufacturing, refining and finishing works: electroplating and other metal finishing works
Metal manufacturing, refining and finishing works: iron and steelworks
Metal manufacturing, refining and finishing works: lead works
Metal manufacturing, refining and finishing works: non-ferrous metal works (excluding lead works)
Metal manufacturing, refining and finishing works: precious metal recovery works
Oil refineries and bulk storage of crude oil and petroleum products
Power stations (excluding nuclear power stations)
Pulp and paper manufacturing works
Railway land
Road vehicle fuelling, service and repair: garages and filling stations
Road vehicle fuelling, service and repair: transport and haulage centres
Sewage works and sewage farms
Textile works and dye works
Timber products manufacturing works
Timber treatment works
Waste recycling, treatment and disposal sites: drum and tank cleaning and recycling plants
Waste recycling, treatment and disposal sites: hazardous waste treatment plants
Waste recycling, treatment and disposal sites: landfills and other waste treatment or waste disposal sites
Waste recycling, treatment and disposal sites: metal recycling sites
Waste recycling, treatment and disposal sites: solvent recovery works
Profile of miscellaneous industries incorporating
Charcoal works
Fibreglass and fibreglass resins manufacturing works
Glass manufacturing works
Photographic processing industry
Printing and bookbinding works

Appendix C
Summary of the Contaminated Land Strategy

	ACTION	DETAILS	INVOLVING	TIMESCALES
1	Carry out consultation review on the published strategy.		Env. Health	June2001- April2002
2	Develop communications protocol based on the SNIFFER Document "Communicating understanding of contaminated land risks"		Env. Health, communications	June2001- April2002
3	Assess the potentially contaminative use information against the DOE industrial profiles database. (approximately 500 sites). Identify any potential contaminant uses not on the DOE list e.g. hospitals,	This will clarify the data set collected in the 1990s and rationalise the amount of that data to be entered into GIS	Env. Health	June2001- April2002
4	Consider all existing information with relation to the pollution of controlled waters via liaison with the environment agency.		Env. Health	June2001- April2002
5	Gather existing site condition information from other parts of the Council (part1). Consider collation of local knowledge re contaminative use sites from long term officers.	A number of long serving officers need to consider the cont. uses from 2 above to consider degree of existing info available re those sites.	various	June2001- April2002
6	Gather existing site information (part 2) The council has some archived information for some sites**.**	Search of records to identify areas where contamination previously suspected or remediated	This task is complicated by the lack of easily identified files or their contents.	By April 2003
7	Consider Purchase of Contaminated Land Management Information System and risk assessment/ prioritisation software including any necessary computer hardware and training.	The strategy suggests items 3 must be completed before this is considered	Env. Health, It	By April 2003
8	Assess, as a priority, all major sites designated for development for potential pollution linkages/ contaminated land.	Can be done as a crude screen when the contaminant info (3) is available.	Env. Health,Planning	As soon as reliable contaminative use information is available
9	Start investigation of those sites with identified potential pathways		Env. Health	Occurs when the council has evidence of sig harm etc
10	Identify all our own land that we formally owned or occupied but have sold/left cross referenced to the contaminative uses data at 3		estates	June2001- April2002
11	Assess all land as currently occupied by HBC for potential pollutant linkages		estates	This will be dependant on the availability of the information at earlier stages
12	Introduce council wide protocol for the forwarding of complaints or information regarding contaminated land to be sent to the Environmental Protection section.		Env Health	June2001- April2002
13	Assess the degree of risk arising from identified pollutant pathways	Awaits development of guidance and software	Env Health	This will be dependant on the availability of the information at earlier stages
14	Prioritise all sites with risk assessed pollutant pathways	Awaits development of guidance and software	Env Health	This will be dependant on the availability of the information at earlier stages
15	Begin the process of site investigation for relevant sites	This will involve detailed work on	Env Health	This will be dependant on the implementation of much of the rest of the strategy and the development of new guidance.