

# Hertsmere Borough Council

## Statutory Contaminated Land Strategy

Required under the provisions of the  
Environmental Protection Act 1990 Section 78B

July 2001

© 2000 Roger Braithwaite

This strategy has been developed under licence in association with Roger Braithwaite and zero environment Ltd and is protected under copyright. It may be reproduced without restriction by the Hertsmere Borough Council in accordance with its duties under the Environmental Protection Act 1990 Part IIA. No part of it may however be reproduced or used in any way by any other local authority as part of their duties under that Act, or by any other person for commercial purposes.

**Acceptance of this document infers acceptance of these copyright conditions.**

# Contents

## **1. Introduction & Overview**

- 1.1 Background to the legislation
- 1.2 Explanation of terms
- 1.3 National objectives of the new regime
- 1.4 Local objectives
- 1.5 About this strategy
- 1.6 Roles and responsibilities
- 1.7 Outline of the statutory procedure
- 1.8 Situations where this regime does not apply
- 1.9 Land under the ownership of the enforcing authority
- 1.10 The need for team working
- 1.11 Financial and manpower implications

## **2. The Strategy**

- 2.1 The Hertsmere Borough Council area and a Strategic approach.
- 2.2 Identification of potentially contaminated sites and their prioritisation according to risk
- 2.3 Obtaining further information on pollutant linkages and the risk assessment process
- 2.4 The written record of determination and formal notification
- 2.5 Liability and enforcement
- 2.6 Data handling and access to information
- 2.7 Quality control, performance indicators and arrangements for review
- 2.8 Projected costs and timetable

## **Appendices**

- 1 - Special sites
- 2 - List of consultees and contact points
- 3 - Pollution of controlled waters
- 4 - List of potentially contaminative uses
- 5 - Powers of entry and the appointment of "suitable persons"
- 6 - Sources of Information
- 7 - Site Specific Risk Assessment

# 1. INTRODUCTION & OVERVIEW

## 1.1 - BACKGROUND TO THE LEGISLATION

Industrial change and demographic shift during the 20th century resulted in the need for large scale re-organisation of our towns and cities. Industries moved out or disappeared altogether leaving large, 'brown field', gaps in our urban landscape. At the same time, changes in heating methods, and the advent of the consumer society, has had a significant effect on the type and volume of refuse it has been necessary to landfill. Inevitably, these changes have left behind a legacy of contaminated land which in some cases, may be harmful.

The Government, in its response to the 11th report of the Royal Commission on Environmental Pollution in 1985, announced that the Department of the Environment was preparing a circular on the planning aspects of contaminated land. The draft of the circular stated that:

*Even before a planning application is made, informal discussions between an applicant and the local planning authority are very helpful. The possibility that the land might be contaminated may thus be brought to the attention of the applicant at this stage, and the implications explained.*

Since 1988 the Town & Country Planning (General Development) Order has required local planning authorities to consult with waste disposal authorities if development is proposed within 250m of land which had been used to deposit refuse within the last 30 years.

In January 1990 the House of Commons Environment Committee published its first report on contaminated land. This document expressed concern that the Government's suitable for use approach, "... may be underestimating a genuine environmental problem and misdirecting effort and resources". The committee produced 29 recommendations, including the proposals that:

*The Department of the Environment concern itself with all land which has been so contaminated as to be a potential hazard to health or the environment regardless of the use to which it is to be put, and;*

*The Government bring forward legislation to lay on local authorities a duty to seek out and compile registers of contaminated land.*

Immediately following the House of Commons report, the Environmental Protection Act 1990 had, at section 143, a requirement for local authorities to compile, 'Public registers of land which may be contaminated'. If enacted this would have required local authorities to maintain registers of land which was, or may have been contaminated, as a result of previous (specified) uses. In March 1992 however, the concern about the blighting effect of such registers resulted in a press release published by the Secretary of State delaying the introduction of section 143 stating:

*The Government were concerned about suggestions that land values would be unfairly blighted because of the perception of the registers.*

Subsequently in July 1992, draft regulations were released with significantly reduced categories of contaminative uses, "... to those where there is a very high probability that all land subject to those uses is contaminated unless it has been appropriately treated". It was estimated that land covered by the registers would be only 10 to 15% of the area previously envisaged. This, however, still did not satisfy the city, so on the 24th of March 1993 the new Secretary of State announced that the proposals for contaminated land registers were to be withdrawn and a belt and braces review of land pollution responsibilities would be undertaken.

This review resulted in the publication of the Department of the Environment consultation paper, *Paying For our Past* (March 1994), which elicited no less than 349 responses. The outcome of this was the policy document, *Framework for Contaminated Land*, published in November 1994. This useful review emphasised a number of key points:

- \* The Government was committed to the "polluter pays principle", and the "suitable for use approach".
- \* Concern related to past pollution only (there were effective regimes in place to control future sources of land pollution).
- \* Action should only be taken where the contamination posed actual or potential risks to health or the environment and there are affordable ways of doing so.
- \* The long standing statutory nuisance powers had provided an essentially sound basis for dealing with contaminated land.

It was also made clear that the Government wished to:

- \* Encourage a market in contaminated land, and
- \* Encourage its development.

The proposed new legislation was first published in June 1995 in the form of section 57 of the Environment Act which amended the Environmental Protection Act 1990 by introducing a new Part IIA. After lengthy consultation on statutory guidance this came into force in April 2000.

## **1.2 - EXPLANATION OF TERMS**

The legislation and guidance is very heavily punctuated with many complex and often unusual terms. To assist in the interpretation of these an extensive glossary has been included in DETR Circular 2/2000, *Environmental Protection Act 1990: Part IIA - Contaminated Land*. The key terms which will be used throughout this strategy are as follows :

*Contaminant - A substance which is in, on or under the land and which has the Potential to cause harm or to cause pollution of controlled*

waters.

*Contaminated Land* – Any land which appears....to be in such a condition ....that  
a) significant harm is being caused or there is a significant possibility of such harm being caused, or  
b) pollution of controlled waters is being, or is likely to be, caused.

*Controlled Waters* - Embraces territorial and coastal waters, inland fresh waters and Ground waters.

*Class A person* – Person who has caused or knowingly permitted a pollutant to be in, on or under the land.

*Class B person* - Person who is the owner or occupier of land where no Class A persons can be found.

*Enforcing Authority*- The local authority in whose area the land is situated, or, for Special Sites, the Environment Agency.

*Harm* - 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.

*Pathway* - One or more routes or means by or through which a receptor is being, or could be, exposed to or affected by a contaminant.

*Pollutant linkage*- The relationship between a Contaminant, a Pathway and a Receptor.

*Receptor* - Includes living organisms, ecological systems, property or controlled waters which are being or could be harmed or polluted by a contaminant .

*Register* - The Public Register of land which has been determined as “Contaminated Land” and the particulars relating to that land.

*Remedial Action* - The doing of anything for assessing the condition of the land or any controlled waters or any adjoining land, or the doing of any works....for the purpose of preventing, minimising, remedying or mitigating the effects of harm or pollution....being caused.

*Risk* - The combination of the probability of occurrence of a defined Hazard and the magnitude of the consequences.

### 1.3 NATIONAL OBJECTIVES OF THE NEW REGIME.

ENVIRONMENT ACT 1995 S.57

ENVIRONMENTAL PROTECTION ACT 1990 Part IIA, S.78

THE CONTAMINATED LAND (ENGLAND) REGULATIONS 2000

DETR CIRCULAR 2/2000 – CONTAMINATED LAND.

The Government believes contaminated land to be, “an archetypal example of our failure in the past to move towards sustainable development”.

Their first priority has been the prevention of new contamination by the introduction of water and waste management regimes, and the strengthening of the planning system.

Secondly there are three stated objectives underlying the suitable for use approach:

- a) to identify and remove unacceptable risks to human health and the environment;
- b) to seek to bring damaged land back into beneficial use; and
- c) to seek to ensure that the cost burdens faced by individuals, companies and society as a whole are proportionate, manageable and economically sustainable.

The “suitable for use” approach recognises that risk can only be satisfactorily assessed in the context of a specific use with the aim of maintaining an acceptable level of risk at minimum cost. It is intended that this will therefore not disturb social, economic and environmental priorities.

The specific stated objectives of the new regime are:

- a) to improve the focus and transparency of the controls, ensuring that authorities take a strategic approach to problems of land contamination;*
- b) to enable all problems resulting from contamination to be handled as part of the same process (previously separate regulatory action was needed to protect human health and to protect the water environment);*
- c) to improve the consistency of approach taken by different authorities; and*
- d) to provide a more tailored regulatory mechanism, including liability rules, better able to reflect the complexity and range of circumstances found on individual sites.*

In addition to providing a more secure basis for direct regulatory action, the Government considers that the improved clarity and consistency of the new regime is also likely to encourage voluntary redemption. It is intended that companies responsible for contamination should assess the likely requirements of regulators and plan remedial action in advance of regulatory action.

There will also be significant incentive to undertake voluntary remedial action in that the right to exemption to pay Landfill Tax will be removed once enforcement action has commenced.

The Government considers that the new regime will assist developers of contaminated land by reducing uncertainties about so called, "residual liabilities". In particular it should:

*a) reinforce the suitable for use approach, enabling developers to design and implement appropriate and cost-effective remedial action schemes as part of their redevelopment projects;*

*b) clarify the circumstances in which future regulatory intervention might be necessary (for example, if the initial remedial action scheme proved not to be effective in the long term); and*

*c) set out the framework for statutory liabilities to pay for any further remedial action should that be necessary.*

#### **1.4 - LOCAL OBJECTIVES**

Hertsmere Borough Council welcomes the introduction of Part IIA of the Environmental Protection Act 1990 which compliments the Council's own Corporate aims and objectives.

The Hertsmere Local Plan, September 2000, incorporates a commitment to sustainable development by encouraging the future development of brownfield or previously developed sites. The target is for 60% of housing development to take place on previously developed land. The plan includes a requirement for developers to disclose information regarding possible contamination of a site, and to carry out further investigations and take remedial action.

Reference will also be made where appropriate to the Hertfordshire County Structure Plan 1991-2011, the Minerals Local Plan 1991-2006, and the Waste Local Plan 1995-2005.

In addition to the various adopted local plans, there is a requirement under planning legislation to take account of the provisions of PPG 23 – "Planning and Pollution Control", to ensure that inappropriate development does not take place on contaminated land.



The identification and safe re-use of contaminated land, and land on which potential contaminants have been deposited, therefore plays a key part in the sustainable development of the area.

## **1.5 - ABOUT THIS STRATEGY**

Local authorities are required under the Environmental Protection Act 1990 to take pro-active action in relation to contaminated land.

Section 78B of the Act, states :

“Every local authority shall cause its area to be inspected from time to time for the purpose -

(a) of identifying contaminated land; and

(b) of enabling the authority to decide whether any such land is land which is required to be a special site .

“Special Sites” are defined in Appendix I.

Section 78B (2) also requires authorities to act in accordance with guidance issued by the Secretary of State in this respect. Statutory guidance is contained within DETR Circular 2/2000.

The statutory guidance makes clear that in order to carry out this duty, authorities must produce a formal contaminated land strategy document which clearly sets out how land which merits detailed individual inspection will be identified in an ordered, rational and efficient manner, and within what time scale. The strategy must then be kept under periodic review. A copy must be forwarded to the Environment Agency for comment and feedback to the DETR.

In order to satisfy the far reaching objectives of the new regime it will be necessary to investigate land throughout the District. This will ultimately enable the Authority to make the sometimes difficult, and inevitably complex decisions relating to the condition of the land, the risks it presents and who may be liable for it at law. This strategy is the commencement of that process and seeks to express as clearly as possible how each stage will be addressed.

It should be noted that there is no formal mechanism in place for approval of local authority strategies, although at least the Environment Agency, County Council, English Nature, Countryside Agency and English Heritage will be consulted (see Appendix II for details of consultees).

## 1.6 - ROLES AND RESPONSIBILITIES

The primary regulators in respect of these new powers are the district and borough councils. Within **Hertsmere Borough Council** the strategy will be under the control of the Chief Environmental Health Officer. It should be noted that this could be a complex and demanding enforcement role which will be carried out in accordance with the Cabinet Office/LGA Enforcement Concordat March 1998, which has been adopted by this Council.

The statutory guidance states: "The local authority has the sole responsibility for determining whether any land appears to be contaminated land."

This is a significant responsibility which reflects existing local authority duties under the statutory nuisance regime and the Town & Country Planning Acts. The role in broad terms is:

- \* To cause the area to be inspected to identify potentially contaminated sites
- \* To determine whether any particular site is contaminated (by definition)
- \* To determine whether any such land should be designated a 'special site'
- \* To act as enforcing authority for contaminated land not designated a 'special site'

The **Environment Agency** also has four main roles:

- \* To assist local authorities in identifying contaminated land (particularly where water pollution is involved);
- \* To provide site specific guidance to local authorities on land for which they hold information;
- \* To act as enforcing authority for contaminated land designated a 'special site';
- \* To publish periodic reports on contaminated land at the request of the DETR.

Where the presence of contaminated land has been confirmed the Council or Environment Agency will:

- \* Establish who should bear responsibility for remedial action
- \* Decide, after consultation, what must be done in the form of remedial action and ensure it is effectively carried out
- \* Determine liability for the costs of the remedial works
- \* Maintain a public register of regulatory action in relation to contaminated land

## 1.7 - OUTLINE OF THE STATUTORY PROCEDURE

Contaminated land is defined 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.

What may and may not constitute the various categories of harm is described in the Circular – Annex 3, Chapter A, Part 3. Controlled waters include inland freshwater, groundwater and coastal waters (see Appendix III). The forthcoming Water Bill may amend the definition to become “Significant pollution of controlled waters .....”.

The Council will identify land which has both **sensitive receptors** nearby and **sources of potential contamination**. Where they have good reason to believe these both exist, they will undertake a formal **risk assessment** in accordance with established scientific principles. This will establish whether there is the potential for them coming together and causing **harm or pollution** as described. This combination of circumstances is known as a **pollutant linkage**.

Where the Council is satisfied that significant harm is occurring, or there is a significant possibility of such harm, or pollution of controlled waters, they will declare that a significant pollutant linkage exists and that the land is contaminated. Unless the land is a Special Site, the Council will commence regulatory action.

The regulatory action involves a series of procedures which will include:

- \* A formal written record of the determination
- \* Formal notification of all interested parties
- \* Determination of the physical extent of the land
- \* The extent and seriousness of the risks
- \* The number and type of pollutant linkages
- \* The effect each significant pollutant may have on controlled waters (if any)
- \* The most appropriate and cost effective remedial scheme for each significant pollutant linkage
- \* Identification of liability groups and appropriate persons for each pollutant linkage
- \* Assessment of hardship in the case of each appropriate person
- \* Effective remedial action of the site and recovery of costs where

appropriate.

A series of consultations will be carried out at each stage with the ultimate aim of securing **voluntary remedial action** (without the need for enforcement action). Where the land does fall within the definition of a special site the Environment Agency becomes the enforcing authority. In these cases, however, the local authority must still make the determination and formally notify the interested parties.

In certain circumstances the local authority may carry out the remedial works. In general terms it has this power where:

- \* Urgent action is necessary (see Section 2.5 and appendix 5)
- \* There is no appropriate person
- \* The authority is precluded from taking enforcement action (specified reasons)
- \* The authority agrees to carry out the works on behalf of an appropriate person
- \* A remedial action notice has not been complied with

In non urgent cases where a remedial action notice is necessary and all the required consultations have been completed, the notice will be served on the appropriate person(s) no sooner than three months after the contaminated land has been identified or declared a special site. The notice itself may require further investigation of the site and as a result more pollutant linkages may be identified. Where that is the case the authority will go through the same processes again to identify appropriate persons and remedial actions.

The enforcing authority must consider the potential for hardship and undertake cost benefit analysis in respect of all remedial actions. Where remedial actions are undertaken in default of a notice, the enforcing authority may be able to recover costs.

## **1.8 - SITUATIONS WHERE THIS REGIME DOES NOT APPLY**

There are several situations where existing pollution control legislation would apply to control the effects of land contamination:

a) **Integrated Pollution Control** (Environmental Protection Act 1990 Part I / Prescribed Processes and Substances Regulations 1991 Schedule 1 Part A) - Certain Industrial processes are prescribed under the above regulations, for a pollution control regime known as Integrated Pollution Control (IPC). This is enforced by the Environment Agency and includes measures to prevent the pollution of land. Section 27 of the Act gives the Environment Agency power to take action to remedy harm caused by a breach of IPC controls, including land contamination. This regime is currently being replaced by Pollution Prevention & Control ( EC Directive 96/91) which came into force in August 2000 and enhances existing powers.

b) **Waste Management Licencing** (Environmental Protection Act 1990 Part II) - All operating waste disposal and processing sites (including scrap yards) are subject to licencing. Contamination which is causing harm, or pollution of controlled waters, is dealt with as a breach of the conditions of the licence. In exceptional circumstances, where the problem arises from an unlicensed activity, it is possible that Part IIA could apply.

The illegal tipping of controlled waste (fly tipping) should also be dealt with under the Environmental Protection Act 1990 Part II (section 59).

c) **Pollution of Controlled Waters not arising from land** (Water Resources Act 1991 section 161; Groundwater Regulations 1998). Where a pollution incident has occurred and the pollutant is discharged directly into the body of water or groundwater, or it has left land and it is entirely in the body of water (ie the land is no longer causing pollution), the specific legislation above will apply.

d) **Discharge Consents** (Water Resources Act 1991 Part III) - No remedial action notice can require action to be taken which would affect a discharge of liquid to the foul sewer or watercourse authorised by consent.

e) **Change of Land Use** - Where land becomes a risk to potential new receptors as a result of a change of use, the Town & Country Planning Development Control regime will continue to apply as before.

f) **Risk of Harm to Employees** - Where there is a risk of harm to persons at work, the Health and Safety at Work legislation will apply. The enforcing authority will be either the Health & Safety Executive or this Council depending on the work activity.

g) **Risk of Harm Following an Incident at a COMAH Site** (Control of Major Accident Hazard Regulations 1999) - Where there has been a release, explosion or other major incident, which has caused land contamination, the restoration should be carried out as part of the COMAH on site / off site emergency restoration plan.

**In addition there are several other situations where the relationship with Part IIA needs clarification:**

h) **Contaminated Food** (Food Standards Act 1999) - Part I of the Food and Environment Protection Act 1985 gave Ministers emergency powers to prevent the growing of food on, *inter alia*, contaminated land. Following the establishment of the Food Standards Agency this power is now vested in the Secretary of State. Where a Council suspects that crops may be affected by contaminated land to such an extent they may be unfit to eat, they will consult the Food Standards Agency and Ministry of Agriculture Fisheries and Food to establish whether an emergency order may be necessary. Remedial action for the site if necessary would still be carried out in accordance with the new powers in Part IIA.

i) **Radioactivity** - Part IIA does not apply to contamination caused by radioactivity, but the Secretary of State does have the power to make Regulations to that effect.

Until such Regulations are created and brought into force, the Council will liaise with the Environment Agency where radioactive contamination is suspected or confirmed.

j) **Organisms** - Part IIA does not apply to contamination caused by organisms such as bacteria, viruses or protozoa, as they do not fall within the definition of substances. This could affect land contaminated with Anthrax spores, E-coli, etc. The Council will liaise with the Environment Agency in relation to MOD land and the Ministry of Agriculture Fisheries and Food on all other sites. It should be noted that even though contaminated sites used in connection with biological weapons must be designated Special Sites (see appendix 1), this applies only to non biological contamination.

k) **Statutory Nuisance** - (Environmental Protection Act 1990 Part III) - The relationship between Part IIA and statutory nuisance is not straight forward. Suffice to say if land is declared contaminated land by definition, it cannot be considered a statutory nuisance. This is understandable and ensures there is no duplication or confusion between the two regimes.

## **1.9 LAND UNDER THE OWNERSHIP OF THE COUNCIL**

Where land owned by the Council is found to be contaminated land, there will be no enforcing authority unless the land is a Special Site. The Council must, however, carry out their duties as though they were the enforcing authority, undertake the same consultations and assessments, and initiate appropriate remedial works.

To this end a formal relationship will be maintained between Environmental Health and departments responsible for Council owned land. All information relating to the identification, assessment and remedial action of Council owned land will be fully reported to satisfy the needs for transparency. See also 1.10 below.

## **1.10 - THE NEED FOR TEAM WORKING**

The statutory controls now in place for contaminated land may need to be taken into account by those responsible for other Council duties:

Planning - the inspection of the District will identify areas of potentially contaminated land. This may result in the need to re-examine past development control files or identify development routes for contaminated sites which may subsequently impact on the Hertsmere Local Plan.

Building Control - have the duty to enforce protection measures in new build projects to mitigate the impact of contamination on property. Information they hold may be useful in quantifying risks.

Legal Services- this is a highly complex piece of legislation which could have significant implications for the Council, land owners and occupiers. The Solicitor's advice may be required on many aspects including those relating to enforcement, liability, powers of entry, data protection, access to information etc.

Highways Partnership - land under highways, pavements, verges and common areas may be contaminated and present a risk to potential receptors. Highways Authorities must maintain registers under Part III of the New Roads and Street Works Act 1991 regarding, amongst other things, streets with, "special engineering difficulties". This includes risks from contamination.

Business Information Services - data will be held both on a data base and the Mapinfo geographical information system. Continuing support will be required to update and utilise these systems.

Property Services and Housing Services - land in use and controlled by these departments may be contaminated and require remedial action. Alternatively, council owned land or properties may be receptors of contamination from adjacent or other private land, and the Council therefore has an interest in ensuring that adequate remedial action is carried out.

Environmental Coordination – remedial action measures selected must be sufficient to meet the adopted requirements for sustainability and other environmental priorities.

Corporate Communications – There are likely to be enquiries from concerned and interested members of the public and landowners. There may also be a need to consult certain sectors of the community or to inform them of activity. Corporate Communications will be involved in any of these exercises.

Within the Hertsmere district, there are also four town and parish councils. These are a valuable resource for local, particularly historical, information and will be consulted during the first stages of the identification of potentially contaminated sites. They will also be advised where appropriate of future activities which may impact on specific sectors of their communities.

## **1.11 - FINANCIAL AND MANPOWER IMPLICATIONS**

As part of the Government spending review in July 1998 a sum of £50M was made available to local authorities over three years to develop inspection strategies, carry out site investigations and take forward enforcement action. In addition £45M has

been allowed for remedial action over the same period through the contaminated land Supplementary Credit Approval (SCA) programme.

Funding aspects of the strategy are considered in Part 2.8.

The identification of potentially contaminated sites will be carried out by existing environmental health staff, along with the first stage risk assessments which are essentially desk-top studies. This will allow sites to be prioritised. Further assessments of actual conditions, along with site surveys as appropriate, will need to be carried out by specialist consultants, appointed preferably by those currently responsible for the land.

## 2. THE STRATEGY

### 2.1. THE HERTSMERE AREA AND A STRATEGIC APPROACH.

2.1.1. Hertsmere is a small mixed rural and urban authority covering an area of 39 square miles of mainly agricultural land. It includes the towns of Borehamwood, Bushey, Potters Bar and Radlett and the parishes of Aldenham, Ridge and Shenley. The history and population growth of the area has been largely the result of industrial and suburban development due to its position on the northern outskirts of Greater London. The commercial population comprises mainly high technology industries and light industrial units. The district has borders with Welwyn Hatfield, St. Albans, Watford, Three Rivers, and the London Boroughs of Enfield, Barnet and Harrow.

2.1.2 There is one site of special scientific interest within the district (Redwell Woods) and one proposed at Hilfield Park Reservoir). In addition there are three nature reserves, three important geological sites and four prescribed ancient monuments. In any case where it appears that these sites may be affected by land on which contaminants have been identified, the responsible organisations will be fully involved in discussions relating to remedial action. Similar attention will also be paid to the 15 conservation areas in the district which require particular consideration because of their status.

Where appropriate, the Herts Biological Records Centre and Herts and Middlesex Wildlife Trusts will be consulted to establish whether particular land is likely to have implications on the natural environment.

2.1.3 The northern part of the district is underlain by a highly permeable gravel and chalk aquifer which holds the main drinking water resource for the area. Elsewhere the chalk aquifer is protected by clay strata, but pollutants can run into swallow holes, streams and other watercourses. Details of abstraction facilities and vulnerability has been provided by the Environment Agency. The aquifer is highly



susceptible to urban pollutants, particularly near the River Colne. The Council is working together with other agencies to ensure the sustainability of the ground water reserves and to minimise surface water run-off by good management. These policies may reduce the potential for the long distance transportation of contaminants. The Council will take into account the geology, hydrogeology and hydrology of the area, and the surrounding districts on which contaminated land within the Borough may impact. The aquifer and surface waters will receive priority attention during consideration of potentially contaminated sites. Where a potential pollutant linkage includes a public water supply source as a receptor, the responsible water company will be notified.

2.1.4 The main rivers and streams of interest include the River Colne, Catharine Bourne, Mimms Hall Brook and Tykes Water. Open waters include Hillfield Park Reservoir, Aldenham Reservoir and lakes at Tyttenhanger and Bowmans Green Farms.

2.1.5 Land can only be considered contaminated if it impacts in a certain way on specified receptors. Those relevant to Hertsmere are:

- a) Controlled Waters:
  - Inland fresh waters (rivers, streams, and lakes, including the bottom / bed if dry).
  - Ground waters ( Major, Minor and Non-Aquifers).  
Water Resources Act 1991 s104 (see also appendix 3)
  - Public and Private Water Supplies.
  
- b) Eco systems:
  - Sites of special scientific interest.  
Wildlife & Countryside Act 1981 section 28
  - National / local nature reserves.  
Wildlife & Countryside Act 1981 section 35 / National Parks & Access to the Countryside Act 1949 section 21
  - Special areas of conservation & special protection areas.  
Conservation (Natural Habitats etc) Regulations 1994 regulation 10
  - Any candidate special areas of conservation or potential special protection areas.
  - Any habitat or site afforded planning policy protection.  
Planning Policy Guidance Note 9 - Nature Conservation, para 13
  
- c) Human beings
  
- d) Property:
  - Buildings (including below ground structures).
  - Ancient monuments.
  - Produce grown domestically or on allotments for Consumption.

2.1.6 The potential sources of contamination must be identified. In order to do this, the following information will be considered :

- a) Industrial History - A comprehensive list of potentially contaminative uses is

attached at Appendix 4. The first step in the process of identifying potentially contaminated sites will be to consider historical data available from old Ordnance Survey maps and written records. The most relevant information is expected to relate to the past 50 years and this will be obtained from this Council's archives and the County records office. Local and internal knowledge will also be very important at this stage, and contact will be made, for example, with historical societies and the parish councils.

b) Current Industry - The existing industrial areas of the Borough are potential sources of contamination and these will be considered against the statutory guidance to establish whether there is the potential for contamination to exist. If so, it may be more appropriately controlled under other legislation which is designed to prevent land contamination from occurring. ( See section 1.8 above).

c) Environmental Protection Act 1990 Part I - Processes authorised for integrated pollution control (IPC) by the Environment Agency, and Local Air Pollution Control by the local authority. The IPC regime controls unauthorised discharges from these processes to land and water. There are 5 processes and 17 petrol stations which are prescribed for the control of emissions to air only and therefore will not necessarily require consideration under this regime.

d) Hazardous Substances - this Council is a Hazardous Substances Authority for the purposes of the Planning (Hazardous Substances) Act 1990 and the Planning (Hazardous Substances) Regulations 1992. This legislation requires consent to allow the presence on land of hazardous substances above a specified quantity. These regulations were recently amended by the Planning (Control of Major Accident Hazards) Regulations 1999 (SI 981) to take account of the new COMAH Regulations.

e) COMAH sites - The Control of Major Accident Hazards Regulations 1999 (SI 743) are enforced by the Environment Agency and Health & Safety Executive (joint competent authority) to control both on and off site risks from industries with a high potential for disaster from dangerous substances (flammable, toxic or explosive).

f) Explosives - are not directly covered by the hazardous substances regulations but are controlled by the Health & Safety Executive under licences issued under the Explosives Act 1875. Any licenced sites will be identified.

g) Current landfill and waste processing sites - are licenced by the Environment Agency under the provisions of Part II of the Environmental Protection Act 1990. Details of all these sites will be obtained.

h) Closed Landfill Sites - are a potentially significant source of risk, especially those which operated before the licencing requirements of the Control of Pollution Act 1974. All closed landfills in the District will be identified and their association with any specified receptors considered in detail.

i) Sewage Works – All operating and redundant sewage works will be

identified, together with land which may have been used for the disposal of sewage sludge.

j) Waste or Derelict Land - often owned by the utilities, railways or local authorities is left seemingly abandoned because it has no particular use or is difficult to access. These areas can accumulate unwanted materials and can be used to dispose of wastes and effluents illegally.

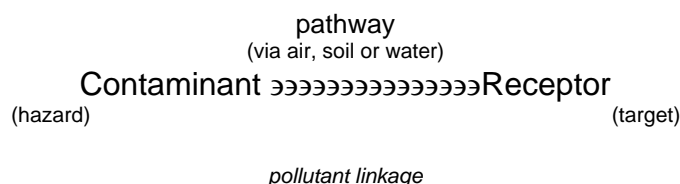
k) Previously Developed Contaminated Sites - the inspection of the District will identify many potentially contaminated sites which have been developed over the years. In some cases the methods and extent of remedial action may be very detailed, in others the extent or effectiveness may be unknown.

Details of consultees and contact points who may hold information regarding receptors and the potential sources of contamination are included in Appendix 2.

## 2.2 THE IDENTIFICATION OF POTENTIALLY CONTAMINATED SITES AND THEIR PRIORITISATION ACCORDING TO RISK

2.2.1 The identification of contaminated land will be carried out in a manner based on the principles of risk assessment. Significant and imminent risks to human health, whether directly or via the water environment, will be given the highest priority.

2.2.2 Before land can be declared contaminated by definition a, significant pollutant linkage, must be identified:



2.2.3 Unless all three elements of a pollutant linkage are identified, land can not be considered contaminated. The identification methods will therefore be concentrated on areas where both contaminants and receptors are known or likely to exist. It is important to fully understand this concept as it will form the basis of all future site investigation and prioritisation procedures.

2.2.4 If, for example, an area of land is known to be badly affected with potentially dangerous contaminants, it will not be considered of the highest priority if studies confirm there are no specified receptors within the area of influence. If there are receptors evident, the risk assessment process will seek to determine the likelihood of them coming together at any time. If the chances of this are calculated as significant, and the consequences would result in significant harm, or pollution of

controlled waters, a significant pollutant linkage will be said to exist and the land will be declared contaminated land.

2.2.5 In summary, for contaminated land to exist the following are pre-requisites:

- i) One or more contaminant substances.
- ii) One or more specified receptors.
- iii) At least one plausible pathway between contaminant and receptor.
- iv) A good chance that the pollutant linkage will result in significant harm or pollution to one of the specified receptors.

2.2.6 The strategy for identification will commence with a desk top survey of the District to identify areas of land where:

- a) Previous uses indicate contamination may exist
- b) There is no existing pollution control regime in place
- c) There are known receptors within a determined area of influence

2.2.7 Potentially contaminated land shall, prior to detailed investigation, be listed and categorised according to a **preliminary assessment** of risk. The method used will be based on that described in DETR Contaminated Land Research Report 6, entitled, 'Prioritisation & Categorisation Procedure for sites which may be Contaminated' (CLR 6). This will ensure that all further investigative work relates directly to the seriousness of the potential risk and will be consistent with the approach taken by many other local authorities.

2.2.8 CLR 6 describes four Priority Categories (PCs), which can be summarised as:

- Priority Category 1 - Site likely not to be suitable for present use and environmental setting. Contaminants probably or certainly present and very likely to have an unacceptable impact on key receptors. Urgent assessment action needed in the short term.
- Priority Category 2 - Site may not be suitable for present use and environmental setting. Contaminants probably or certainly present and likely to have an unacceptable impact on key receptors. Assessment action needed in the medium term.
- Priority Category 3 - Site considered suitable for present use and environmental setting. Contaminants may be present but unlikely to have an unacceptable impact on key receptors. Assessment action unlikely to be needed whilst the site

remains in present use or otherwise remains undisturbed.

Priority Category 4 - Site considered suitable for present use and environmental setting. Contaminants may be present but very unlikely to have an unacceptable impact on key receptors. No assessment action needed while site remains in present use or undisturbed.

2.2.9 To assist in the prioritisation procedure a simple scoring system is allied to the Priority Categories as follows:

Likelihood of *contaminants* on the site:

1	-	most unlikely
5	-	good chance
10	-	known to be present

Existence of *receptors* within area of influence:

1	-	most unlikely
5	-	good chance
10	-	known to exist

Likelihood of impact of contaminants on receptors (*pathway*):

1	-	most unlikely
5	-	good chance
10	-	certain

This preliminary process is known as a CRP (contaminant receptor pathway) assessment. Initial work may identify sites where either specific contaminants are likely or known to exist, or sensitive receptors are known to exist. No more detailed assessment will be undertaken unless both are suspected or confirmed. Where there is doubt the situation will be kept under review. Weightings will be developed for contaminants and receptors in order that the system reflects the degree of risk.

CRP Score	PC
25-30	1
20-24	2
15-19	3
3-14	4

Relationship of CRP score to Priority Category:

2.2.10 Priority Category 1 sites are likely not to be suitable for their present use, and therefore would be followed up with a view to initiating remedial works as soon as possible after they are identified.

2.2.11 Complaints will continue to be received from the public regarding fly tipping, accumulations, and the potential for contaminated land. These will be responded to in accordance with existing procedures and the adopted enforcement policy. The most appropriate legislation or response will be used to address the issues raised.

2.2.12 Enquiries may be received about sites which have been identified for further investigation. Activity could give cause for concern, especially where the sale of land is held up as a result of the suggestion that it may be contaminated. Those so affected may seek an early investigation to clarify their position, thereby seeking to circumvent the prioritisation process. Such requests for priority inspection will, where resources allow, be dealt with as considerately as possible. It is important to note, however, that it is those with a capital interest in the land who will continue to be responsible for investigating and taking remedial action.

## **2.3 OBTAINING FURTHER INFORMATION ON POLLUTANT LINKAGES AND THE RISK ASSESSMENT PROCESS**

2.3.1 The Council has the sole responsibility for determining whether any land appears to be contaminated land; it can not delegate this responsibility. This applies even where the Environment Agency has carried out an investigation on behalf of the Council (see 2.3.9 below).

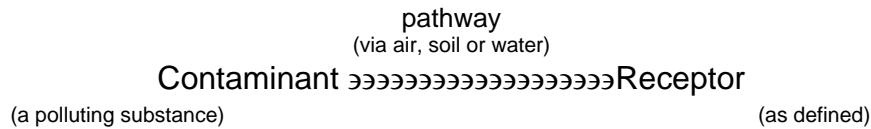
2.3.2 Once the Council becomes aware of the (possible) existence of a pollutant linkage it must, in accordance with the prioritisation procedure, commence the **risk assessment** process. For the purposes of the guidance risk is defined as the combination of:

- a) the probability, or frequency, of occurrence of a defined hazard; and**
- b) the magnitude of the consequences.**

There are two steps in applying the definition to contaminated land:

### **STEP 1 :**

The Council must satisfy itself that at least one pollutant linkage exists -



*pollutant linkage*

This, for the purposes of this strategy is termed a **stage 1 risk assessment**.

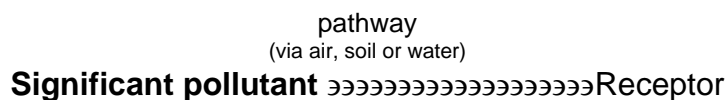
The contaminant(s) must have the potential to have a detrimental impact on the receptor(s) and the pathway has to be plausible. It is not necessary for direct observation of the pathway but if a reasonable scientific assessment suggests that the two could come together then a pollutant linkage is said to exist and the authority must proceed to step two.

**STEP 2**

At this stage a more detailed investigation must be undertaken to confirm that the pollutant linkage identified is:

- \* resulting in significant harm (or the significant possibility of such harm) being caused to the receptor(s), or
- \* resulting in (or likely to result in) the pollution of controlled waters

If either of these are confirmed then the land is contaminated land and the pollutant linkage is 'significant'.



*significant pollutant linkage*

This, for the purposes of this strategy is termed a **stage 2 risk assessment**.

2.3.3 The detailed on-site investigation of contaminated land is inevitably a time consuming and expensive process. Therefore it must be emphasised that all investigations will be carried out on an incremental basis and terminated immediately it is clear that no significant pollutant linkage exists.

2.3.4 In cases where imminent risk of serious harm or serious pollution of controlled

waters has been confirmed, the Council will authorise urgent action in accordance with paragraph 2.5.13 of this strategy.

2.3.5 The suggestion that land may be contaminated can have a significant impact on the way others view it, and in particular, its perceived value. The Council will therefore seek to obtain as much information as possible about a suspected site without causing unnecessary alarm. This may involve detailed inspection of historical data in its possession such as Planning and Building Control files. Others with information may include :

The Environment Agency  
Ministry of Agriculture Fisheries and Food  
The Health & Safety Executive  
Developers  
Current and Previous occupiers  
Current and Previous landowner(s)

A Memorandum of Understanding has been established with the Environment Agency in order to ensure the effectiveness of information exchange and facilitate the acquisition of site specific data. If the information obtained confirms that there is no significant pollutant linkage, then the investigation will cease and no further action will be taken. It may be, however, that circumstances will be identified whereby a significant pollutant linkage could occur at some time in the future. In these cases arrangements will be made to keep the situation under review.

2.3.6 Where evaluation of all available data suggests a significant pollutant linkage may exist, it will be necessary to visit the site and carry out some form of on-site testing, or take away samples for analysis. In every case this will be carried out by a, "suitable person", adequately qualified to undertake the work (see Appendix 5).

Intrusive investigations will be carried out in accordance with appropriate technical procedures and current advice to ensure:

- a) They are effective;
- b) They do not cause any unnecessary damage or harm; and
- c) They do not cause pollution of controlled waters.

2.3.7 Any site visit and detailed investigation will take into account at least the following items :

- Degree of public accessibility, the presence and condition of fencing or boundary walls and warning notices;
- Current use of the site – exposed soils, types of surfaces;
- Derelict buildings, structures and services;
- Adjacent land use, or other land nearby with the potential to be affected;
- The location of source protection zones in relation to the groundwater;
- Evidence of ground disturbance, or deposits, eg. Discoloration, subsidence, fill material or fly tipping;
- Vegetation type and signs of distress;



- Significant and relevant odours;
- Direction of surface water run-off, and standing water on site;
- Discharges of water from site, including drainage systems and soakaways;
- Nearby rivers, streams, ditches, ponds, lakes and boreholes;
- The direction and rate of flow of water courses and groundwater;
- Discoloration or abnormal appearance of surface waters;
- Presence of gas monitoring facilities.

2.3.8 Statutory powers of entry are conferred on the Council to enable it to carry out its functions under Part IIA. These are outlined in detail in Appendix 5. The Council will not use these powers to obtain information about the condition of land, where:

- \* It can obtain the information from third parties without the need for entering the site; or
- \* A person offers to provide the information within a reasonable and specified time, and does so.

2.3.9 Where the Council are aware that land it intends to investigate would, if declared contaminated land, be a **Special Site**, it will notify the Environment Agency in writing requesting any information it may have on the land and the likelihood of pollutant linkages. According to the wishes of the Environment Agency, it may be that a joint investigation will be undertaken.

Where the Environment Agency (or their agents) wish to carry out a formal investigation on behalf of the Council their officers will need to be appointed as “suitable persons”, in accordance with Appendix 5. The Environment Agency do not have the power under Part IIA to investigate land which may be contaminated land without the authorisation of the Council.

## **2.4 THE WRITTEN RECORD OF DETERMINATION AND FORMAL NOTIFICATION**

2.4.1 Once an area of land has been declared contaminated, the Council will prepare a written record to include:

- a) a description of the pollutant linkage(s) confirmed, including a conceptual model;
- b) a summary of the evidence which confirms the existence of the pollutant linkage(s);
- c) a summary of the risk assessment(s) upon which the pollutant linkage(s) were considered to be significant;
- d) a summary of the way the requirements of the statutory guidance were satisfied.

2.4.2 The Council will then formally notify in writing all relevant parties that the land has been declared contaminated, these to include:

- a) the owner(s)
- b) the occupier(s)
- c) those liable for remedial action('appropriate persons' in the guidance)
- d) the Environment Agency

2.4.3 At the notification stage it may not be possible to identify all the relevant parties, particularly the appropriate persons. The Council will, however, act on the best information available to it at the time and keep the situation continually under review as more information comes to light.

2.4.4 If the Council is of the opinion that the contaminated land is a special site (see Appendix 1) it will inform the Environment Agency of that decision also. The Agency will then consider whether it agrees that the land should form a special site. If it does not agree it will notify the Council and the Secretary of State within 21 days with a comprehensive statement explaining its reasons. The Council will then refer the decision to the Secretary of State.

2.4.5 If the Environment Agency agrees with the Council, or it fails to notify the Council that it disagrees within 21 days, the land will be designated a special site. The responsibility for securing remedial action then passes to the Environment Agency, although the Council must complete the formal notification process.

2.4.6 The legislation and statutory guidance has been designed to encourage **voluntary remedial action** (that is, action by appropriate persons without the need for enforcement action). As an incentive, any materials that require disposal as a result of voluntary remedial action will be exempt from Landfill Tax. The formal notification procedure is the beginning of the process of consultation on what remedial action might be most appropriate. To aid this process the Council will therefore provide as much information to the relevant parties as possible, including where available:

- a) a copy of the written record of determination;
- b) copies of site investigation reports (or details of their availability)
- c) an explanation of why the appropriate persons have been chosen as such
- d) details of all other parties notified

## 2.5 LIABILITY AND ENFORCEMENT

2.5.1 Land may be declared contaminated upon the identification of only one significant pollutant linkage. Full liability cannot therefore be determined until all significant pollutant linkages on the site have been identified (see also 2.3.6 above). When all significant pollutant linkages have been identified, the procedure relating to the apportionment of liability must commence. This has five distinct stages as follows:

- i) Identifying potential appropriate persons and liability groups
- ii) Characterising remedial actions

- iii) Attributing responsibility to liability groups
- iv) Excluding members of liability groups
- v) Apportioning liability between members of a liability group

2.5.2 The process commences with the establishment of liability groups. All appropriate persons for any one linkage are a 'liability group'. These may be class 'A' or class 'B' persons:

**APPROPRIATE PERSONS - Class 'A'** - These are usually the polluters. Also included are persons who "knowingly permit". These may be developers or others who leave contamination on a site which subsequently results in the land being declared contaminated.

**APPROPRIATE PERSONS - Class 'B'** - Where no class 'A' persons can be found, liability reverts to the owner or the occupier.

The Council will make all reasonable enquiries to identify class 'A' persons before liability reverts to owners or occupiers.

2.5.3 The matter of appropriate persons must be considered for each significant pollutant linkage. Therefore where a site has had a series of contaminative uses over the years, each significant pollutant linkage will be identified separately and liability considered for each.

2.5.4 In most cases the members of a liability group will have the total costs falling on the group as a whole apportioned between them. It may also be necessary to apportion costs between liability groups. There are three basic principles which apply to exclusion and apportionment tests:

- i) The financial circumstances of those concerned have no relevance;
- ii) The Council must consult persons affected to obtain information (on a reasonable basis having regard to the cost).
- iii) Where there are agreements between appropriate persons the local authority has to give effect to these agreements.

2.5.5 It may be appropriate to exclude some appropriate persons from liability. For Class A persons, the regulations specify tests which must be applied in order to determine this. These will be applied in sequence and separately for each pollutant linkage. The exclusion of Class 'B' persons is more straightforward as they must have an interest in the capital value of the land. Most tenants will therefore be excluded.

2.5.6 When the Council has apportioned the costs of each remedial action and before serving remedial action notices, it will consider whether any of those liable may not be able to pay. The Council can consider waiving or reducing the costs, or carrying out the work itself.

2.5.7 Before remedial action notices are served the consultation process will be completed and those involved encouraged to arrive at an informal solution. The Council will do all in its power to consult the appropriate person(s), owners, occupiers etc about their views on the state of the land and to take these into account when making their decision. This could be a difficult process and cause delays. Where a housing estate is affected for example, it would be reasonable to expect house owners, land owners, developers, lenders, insurers, surveyors, geotechnical engineers, residents groups, etc all to have differing views according to their position.

2.5.8 Remedial action notices are served only as a last resort (not withstanding urgent cases), and then only after this lengthy consultation process has been exhausted. Notices will be authorised after two tests are satisfied:

- \* That the remedial actions will not be carried out otherwise.
- \* That the Council is not required to carry out the work itself.

If these are met the Council will serve a remedial action notice on each appropriate person. The notice cannot be served less than three months after formal notification that the land is contaminated, unless urgent action is deemed necessary (where there is imminent risk of serious harm). The Council will inform the Environment Agency of action taken.

2.5.9 The Chief Environmental Health Officer will specify what remedial measures are to be carried out in the remedial action notice. These will be both appropriate and cost effective, employing the 'best practicable techniques'. The aim of the remedial action will be to ensure that the land is no longer contaminated, taking the shortest and lowest cost route. In most cases attention will be focussed on the pathway, rather than the contaminant or receptor. Landowners, including the Council, will be encouraged to take the best possible measures to secure a long term, sustainable solution.

2.5.10 The "reasonableness" of the requirements are paramount. "Reasonableness" is demonstrated by comparing the cost of carrying out remedial action with the cost of failing to (i.e. the costs resulting from the continuing of likely pollution).

2.5.11 Before the Council can serve a remedial action notice it will first determine whether it is appropriate to carry out any of the remedial actions itself. There are five specified circumstances where this may be the case:

- \* Where urgent action is required (see below)
- \* Where no appropriate person can be found
- \* Where one or more appropriate persons are excluded (on grounds of hardship)
- \* Where the local authority has made an agreement with the appropriate person(s) that it should carry out the remedial work
- \* In default of a previous remedial action notice

2.5.12 Some sites may be determined as **Orphan Sites**. These are sites where it is

not possible after reasonable enquiries to find anyone responsible for them, or where the Class A or Class B persons are exempted from liability for specified reasons. In those cases the enforcing authority will bear the cost of remedial action in accordance with guidance.

2.5.13 **Urgent action** must be authorised where the Council is satisfied, after consultation with the Environment Agency, that there is imminent danger of serious harm or serious pollution of controlled waters being caused as a result of contaminated land. In such circumstances the procedures identified in the statutory guidance will be followed (see also appendix 5).

2.5.14 The terms “imminent” and “serious” are not defined and the authority will use the normal meaning of the words. There is, however, guidance on what may constitute “seriousness” when assessing the reasonableness of remedial action.

2.5.15 The Council will undertake the remedial work in urgent cases where it is the enforcing authority if it is of the opinion that the risk would not be mitigated soon enough by enforcement action. In the case of a special site the Council will declare the land contaminated land in accordance with the statutory procedure, and then notify the Environment Agency who will then be responsible for the remedial action.

2.5.16 Wherever possible the Council will seek to recover the costs of any remedial works it has completed.

## **2.6 DATA HANDLING AND ACCESS TO INFORMATION**

2.6.1 The Council is required to produce this contaminated land strategy and formally publish it by July 2001. Subsequently it must maintain a register of regulatory action taken under Part IIA, which must be made available for public inspection at all reasonable times (see 2.6.13 below).

2.6.2 Implementation of the strategy will also result in the generation of data which will be held on the computer data base and the Mapinfo geographical information system, as well as in paper form. There is no statutory obligation to disclose this information, but the Council will comply with the requirements of the Environmental Information Regulations 1998 when dealing with requests for disclosure.

2.6.3 These Regulations require local authorities to make any environmental information they hold available upon request, subject to certain exemptions. The Council will respond to requests for information on land it has identified during, for example, the inspection of the District. See also 2.2.12 above on enquiries regarding information held.

2.6.4 There are some exemptions to the requirement to disclose environmental information. Where there is doubt, the Council's solicitor will be consulted. These exemptions include :

Where the information is held for judicial purposes.  
Where disclosure would affect legal proceedings.  
Where disclosure would affect international relations, national defence or public security.  
Where disclosure would affect the confidentiality of deliberations by a relevant person, or the confidentiality of commercially sensitive matters.  
Where it would involve the supply of a document or record which is still in the course of completion.  
Where the information is not accessible.

2.6.5 "Information", for the purposes of the Regulations includes records, registers, reports, returns, and information on computers.

2.6.6 Requests for information will be dealt with promptly, with an initial response within 3 days. Where the Council has decided to refuse a request for any of the reasons stated in the Regulations, it will provide details of the reasons in writing.

2.6.7 The provisions of the Data Protection Act 1998 will be taken into account. The Act seeks to give some protection to persons (known as data subjects) in respect of three potential dangers:

- \* The use of personal information that is inaccurate, incomplete or irrelevant
- \* The possibility of access to personal information by unauthorised persons
- \* The use of personal information in a context or for a purpose other than that for which the information was collected.

2.6.8 Personal data is defined as information which relates to a data subject who can be identified from the information, or from that and other information in the possession of the data user (the Council). Every individual member of the public can be considered a data subject.

2.6.9 The implications of holding information relating to the condition of potentially polluted property, and the persons associated with that property and pollution, could be significant. Uncertainties will therefore be considered with the Council's Solicitor before any requested information is released.

2.6.10 The only information required to be stored on a **formal register** is that relating to regulatory action and remedial action. The contents are specified at length in schedule 3 of the Contaminated Land (England ) Regulations 2000. This register will be maintained within the Environmental Health Department. Members of the public will be able to view the register free of charge during normal office hours. Requests for copies of documents will be accepted and will be charged at the current rate.

## **2.7 QUALITY CONTROL, PERFORMANCE INDICATORS AND ARRANGEMENTS FOR REVIEW**

2.7.1 The DEFRA will develop performance indicators to assess overall progress in the task of identifying and taking remedial action in respect of contaminated land. They are likely to include:

- a) A measure of the scale of regulatory activity; and
- b) Indicators of the overall progress in the task of identifying and taking remedial action in respect of contaminated land.

The performance data will be collected by the Environment Agency acting on behalf of DEFRA.

2.7.2 It is the Government's intention in due course to establish targets for overall progress.

2.7.3 Procedures are in place to:

- \* Record enquiries and complaints;
- \* Monitor progress;
- \* Record the response; and
- \* Ensure that appropriate records are maintained.

2.7.4 This strategy will be reviewed annually, or following any significant changes in regulation or guidance. The Environment Agency will be formally consulted during the review exercise.

2.7.5 Whilst the Council has a duty to inspect the District, 'from time to time', to identify contaminated land, the frequency of inspection is not prescribed. In practice inspection will be ongoing, balancing a systematic approach with the availability of resources. The Council has a duty to review its inspection strategy on a regular basis. In order to meet its statutory responsibilities, two main aspects of review have been built into this strategy:

- \* Triggers for reviewing inspection decisions, and
- \* Review of the inspection strategy

2.7.6 In addition to the routine review of inspection findings there will be situations which will trigger re-assessment including:

- \* Change of use of surrounding land (introduction of new receptors)
- \* The potential for pollutant linkages to become significant or urgent as a result of unplanned events (eg flooding, subsidence, spillages etc), or a change in

circumstances

- \* The identification of a localised effect which could be associated with the land
- \* The receipt of new information

2.7.7 Particular matters that will be kept under review include:

- \* The content of the strategy generally
- \* Priorities for further investigation of potentially contaminated sites
- \* The potential for the introduction of new receptors
- \* The potential for new contamination
- \* Progress on voluntary remedial action
- \* The enforcement process generally and the identification of appropriate persons particularly
- \* Identification of special sites
- \* The methods used and progress with the implementation.

## **2.8 PROJECTED COSTS AND TIMETABLE**

2.8.1 As outlined in 1.11 above, the Government has identified that the implementation of this legislation will involve local authorities in considerable expenditure. As a result some £95M has been made available over three years either as part of the standard spending assessment or through the contaminated land supplementary credit approval (SCA) programme.

2.8.2 The Council has identified that financial provision will need to be made for the following activities over the period 2001 – 2005 :

- The acquisition of site specific data
- The use and augmentation of the Mapinfo information system
- Consultancy services for the detailed assessment of contaminated land
- Consultancy services for the identification of remedial solutions
- Investigation and remedial action of Council owned land, orphan sites and sites where urgent action is required.

2.8.3 It is anticipated that the identification of sites will be largely completed by April 2003 in line with other nearby authorities. Most of the site classification and on-site investigations will take place between 2003 and April 2005.

2.8.4 A budget of £10,000 has been included for in the year 2001/2 to allow for the acquisition of data and for consultants fees for development sites. This figure will be reviewed for 2002/3 and an appropriate amount included in the light of the work that is being undertaken.

2.8.5 Any sites which become known that require immediate remedial action will be



the subject of report to the Council for special funding.

PROPOSED TIMETABLE FOR THE IMPLEMENTATION OF PART IIA

Duty	Year
Production and publication of statutory contaminated land strategy	By July 2001
Inspection of the District, identification of potentially contaminated sites and prioritisation for further investigation	2001 – 2003
Detailed inspection and assessment of priority category 1 sites	As soon as possible after they become known to the Council
Detailed inspection and assessment of remaining potentially contaminated sites	2003 – 2005

## APPENDIX 1

### SPECIAL SITES

1. Once a local authority has identified land as contaminated land, it must also consider whether it falls into the category of a special site. Special sites are sites where the Environment Agency will have the enforcement role.

2. What exactly constitutes a special site is specified in the Contaminated Land (England) Regulations 2000. For a legal definition the Regulations must always be consulted. In summary, however, they include land:-

- \* Polluting controlled waters (in most circumstances - see Appendix 3);
- \* On sites subject to Integrated Pollution Control ;
- \* Containing waste acid tar lagoons (on sites used for refining benzole, used lubricants or petroleum);
- \* Used as an oil refinery;
- \* Used to manufacture or process explosives;
- \* Used to manufacture or dispose of atomic, chemical or biological weapons (non biological contamination only);
- \* Used for other nuclear purposes;
- \* Owned or occupied by a defence organisation for naval, military or air force purposes (not off base housing / NAFFI);
- \* Held for the benefit of Greenwich Hospital.

3. Contaminated land beyond the boundary of these premises (but contaminated by them) also forms part of the special site.

## APPENDIX 2

### LIST OF CONSULTEES.

#### EXTERNAL

Environment Agency	Area Contaminated Land Officer 2 Bishops Square Business Park St Albans Road West Hatfield Hertfordshire AL10 9EX
DEFRA	Government Office for the East of England Heron House 49-53 Goldington Road Bedford MK40 3LL
HSE	Health and Safety Executive Hazardous Installations Executive Belgrave Road Greyfriars Northampton NN1 2BS
Hertfordshire CC	Director of Environment Hertfordshire CC Pegs Lane Hertford SG13 8DN
English Nature	Harbour House Hythe Quay Colchester Essex CO2 8JF
Countryside Agency	Ortona House 110 Hills Road Cambridge CB2 1LQ

DEFRA : Sustainable Agriculture Branch	RMED, 16 Palace Street London SW1E 5FF
DEFRA : Rural Development Service	Technical Advice Unit National Land Management Team Southgate Street Bury St. Edmunds Suffolk IP33 2BD
Food Standards Agency	Contaminants Division 7 <sup>th</sup> Floor, Aviation House 125 Kingsway London WC2B 6NH
Thames Water	Environment and Quality Gainsborough House (RBH 2) Manor Farm Road Reading Berkshire RG2 0JN
Vivendi Water Partnership	Water Resources Blackwell House Three Valleys way Bushey Herts WD23 2LG

## **TOWN AND PARISH COUNCILS**

Aldenham Parish Council

Elstree/Borehamwood Town Council

Ridge Parish Council

Shenley Parish Council

## **INTERNAL**

Planning Officer

Building Control

Legal Services

Highways Partnership

Business Information Services

Property Services

Housing Services

Environmental Co-ordination

Corporate Communications

## APPENDIX 3

### POLLUTION OF CONTROLLED WATERS

1. Controlled waters are defined for the purposes of Part IIA as:

- \*Coastal waters including docks
- \*Relevant territorial waters (usually to three miles)
- \*Inland fresh waters (relevant rivers, watercourses, lakes, ponds, reservoirs - including bottom / channel / bed, even if dry)
- \*Groundwater  
(section 104 of the Water Resources Act 1991)

2. The pollution of controlled waters is simply defined as:

*The entry into controlled waters of any poisonous, noxious or polluting matter or any solid waste matter*

3. There is no power in the Act to enable the Secretary of State to issue guidance on what degree of pollution may constitute pollution of controlled waters. This has been accepted as a potential area of conflict. When, however, considering cases where it is thought very small quantities of a contaminant are causing pollution, local authorities must consider what remedial action it may be reasonable to require. This should act as a limiting factor thereby ensuring unrealistic demands are not made in relation to cases of very minor pollution.

4. Pollution of controlled waters will rarely be dealt with by the local authorities. Below is a summary of the issues relating to controlled waters.

5. Where pollution of groundwater has occurred and the source can not be identified, or the polluting substances are contained entirely within the body of water (and not in or on the land), then Part IIA does not apply and the matter would be dealt with by the Environment Agency under section Part III of the Water Resources Act 1991 (see also paragraph i.8 (c) above).

6. Where pollution has occurred from land which subsequently affects the wholesomeness of drinking water within the meaning of section 67 of the Water Industry Act 1991 (Water Supply [Water Quality] Regulations 1989 / Private Water Supplies Regulations 1991), then the land becomes a **special site**.

7. Where pollution has occurred from land which results in surface water failing to

meet the criteria in Regulations<sup>#</sup> made under section 82 of the Water Resources Act 1991, then the land becomes a **special site**:

#

The Surface Water (Dangerous Substances) (Classification) Regulations 1989  
The Bathing Waters (Classification) Regulations 1991  
The Surface Water (Dangerous Substances) (Classification) Regulations 1992  
The Surface Water (River Eco System) (Classification) Regulations 1994  
The Surface Water (Abstraction for Drinking Water) (Classification) Regulations 1996  
The Surface Water (Fish life) (Classification) Regulations 1997  
The Surface Water (Shellfish) (Classification) Regulations 1997  
The Surface Water (Dangerous Substances) (Classification) Regulations 1997  
The Surface Water (Dangerous Substances) (Classification) Regulations 1998

8. Where the pollution of a specified aquifer\* is caused by any of the following contaminants the land becomes a **special site**:

Organohalogen compounds and substances which may form such compounds in the aquatic environment;  
Organophosphorus compounds;  
Organotin compounds;  
Substances which possess carcinogenic, mutagenic or teratogenic properties in or via the aquatic environment;  
Mercury and its compounds;  
Cadmium and its compounds;  
Mineral oil and other hydrocarbons;  
Cyanides.

\*Specified aquifers are those contained in the following rocks:

Pleistocene Norwich Crag;  
Upper Cretaceous Chalk;  
Lower Cretaceous Sandstones;  
Upper Jurassic Corallian;  
Middle Jurassic Limestones;  
Lower Jurassic Cotteswold Sands;  
Permo-Triassic Sherwood Sandstone Group;  
Upper Permian Magnesian Limestone;  
Lower Permian Penrith Sandstone;  
Lower Permian Collyhurst Sandstone;  
Lower Permian Basal Breccias, Conglomerates and Sandstones;  
Lower Carboniferous Limestones.

9. This, in effect, leaves local authorities with the potential responsibility for the pollution of controlled waters where:

- a) Surface or coastal waters are affected but not breaching the Regulations in paragraph 7 above.
- b) Groundwater (other than a principal aquifer specified as in 8 above) is contaminated and the water is not used for drinking.

## APPENDIX 4

### LIST OF POTENTIALLY CONTAMINATIVE LAND USES

This list has been drawn up by DETR to provide a broad indication of the type of sites that are known to use, or to have used in the past, materials that could pollute the soil. It must be understood that the list is not exhaustive, and that inclusion on this list does not necessarily infer the existence of a pollutant linkage.

Abattoirs	Fertiliser manufacture
Adhesives manufacture	Fellmongers
Agriculture	Fibre glass works
Aircraft manufacture	Food processing
Airports	Foundries
Animal burial	Fuel manufacture
Animal by-product processing	Fuel storage
Anodisers	Garages and depots
Anti-corrosion treatment	Gas mantle manufacture
Asbestos products	Gas works
Asphalt works	Glass works
Automotive engineering	Glue manufacture
Battery manufacture	Gum and resin manufacture
Bearings manufacture	Hatters
Blacksmiths	Hide and skin processors
Boiler makers	Ink manufacture
Bookbinding	Iron founder
Brass and copper tube manufacture	Iron works
Brass founders	Knackers yards
Brewing	Laquer manufacture
Car manufacture	Laundries
Carbon products manufacture	Leather manufacture
Cement works	Metal coating
Chemical manufacture and storage	Metal manufacture
Chrome plating	Metal sprayers and finishers
Ceramics manufacture	Mining
Coal carbonisation	Mirror manufacture
Coal merchant	Motor vehicle manufacture
Concrete batching	Oil fuel distributors and suppliers
Coppersmiths	Oil merchants
Descaling contractors (chemical)	Oil refineries
Detergent manufacture	Oil storage
Distilleries	Paint and varnish manufacture
Dockyards	Paper works
Drum cleaning	Pesticides manufacture
Dry cleaners	Petrol stations
Dye works	Photographic film works
Dyers and finishers	Photographic processing
Electricity generation	Paper manufacture
Electrical engineers	Plastics works
Electro platers	Plating works
Engineering works	Power stations
Explosives manufacture (including fireworks)	Print works
Farms	Printed circuit board manufacture
	Radioactive materials processing



Railway land  
Railway locomotive manufacture  
Refiners of nickel and antimony  
Resin manufacture  
Rubber manufacture  
Scrap metal dealers  
Sealing compound manufacture  
Sewage works  
Sewage sludge disposal areas  
Sheet metal merchants and works  
Ship breakers  
Ship builders  
Skein silk dyers  
Small arms manufacture  
Smokeless fuel manufacture  
Soap manufacture  
Solvent manufacture  
Solvent recovery  
Steel manufacture  
Stove enamellers

Synthetic fibre manufacture  
Tank cleaning  
Tanneries  
Tar and pitch distillers  
Textile manufacture  
Thermometer makers  
Timber treatment  
Timber preservatives manufacture  
Tin plate works  
Transport depots  
Tyre manufacture and retreading  
Vehicle manufacture  
Vulcanite manufacture  
Vulcanisers  
Waste disposal  
Waste recycling  
Waste treatment  
Zinc works

## APPENDIX 5

### POWERS OF ENTRY AND THE APPOINTMENT OF “SUITABLE PERSONS”

1. Section 108 of the Environment Act 1995 gives the local authority power to authorise, in writing, “suitable persons”, to investigate potentially contaminated land. These powers are extensive and will be considered in detail with the Council’s Solicitor prior to any resisted entry being attempted. It should be noted that these powers are not available to the Environment Agency. The powers which a person may be authorised to exercise include:

- \* To enter at any reasonable time (or in urgent cases, at any time, if need be by force) any premises / land to make such examination and investigations necessary.

- \* To take samples, photographs, carry out tests, install monitoring equipment etc.

2. At least seven days notice must be given to residential occupiers and to occupiers of land where heavy plant is to be used. Consent must be obtained to enter from the occupier, or failing that, a warrant obtained under Schedule 18 of the Act.

3. It should be noted that there are no circumstances in which the Council will use these powers to obtain information about the condition of land, where:

- \* It can obtain the information from third parties without the need for entering the site; or

- \* A person offers to provide the information within a reasonable and specified time, and does so.

#### URGENT ACTION

4. Urgent action must be authorised where the Council is satisfied that there is imminent danger of serious harm or serious pollution of controlled waters being caused as a result of contaminated land. In such circumstances the procedures identified in the statutory guidance will be followed which may involve the forced entry into the premises.

5. The terms “imminent” and “serious” are unfortunately not defined, local authorities are advised to use the normal meaning of the words. There is, however, guidance on what may constitute “seriousness” when assessing the reasonableness of remedial action.

6. The Council will undertake the remedial action in urgent cases where it is the enforcing authority if it is of the opinion that the risk would not be mitigated by enforcement action. In the case of a special site the Council will declare the land contaminated land in accordance with the statutory procedure, and then notify the Environment Agency who will then be responsible for the remedial action.

7. In appropriate cases the Council will seek to recover costs of remedial works it has completed.

8. All intrusive investigations will be carried out in accordance with appropriate technical procedures to ensure:

- a) They are effective
- b) They do not cause any unnecessary damage or harm
- c) They do not cause pollution of controlled waters

## COMPENSATION

9. Schedule 18 of the Environment Act 1995 makes clear the circumstances when a local authority must pay compensation for loss or damage as a result of the use of these powers. The Environmental Health Manager will therefore ensure that only appropriate technical procedures are deployed, the utmost care is taken at all times, and the conditions carefully recorded before, during and after completion of the necessary works.

## “SUITABLE PERSONS”

10. The science and associated technical procedures relating to the investigation and assessment of contaminated land are extremely complex. Knowledge of several specialised disciplines is required together with an ability to interpret significant volumes of data and make a reasoned judgement, often in difficult circumstances.

11. Neither the Act nor the guidance considers what may constitute a, “suitable person”, for the purposes of the investigation and assessment of contaminated land. There is no list of approved consultants or any professional organisation which oversees the training of contaminated land specialists. There is no minimum qualification and no recognised qualification. Consultants come from a range of backgrounds including:

- Environmental health
- Other environmental science disciplines (several)
- Surveyors
- Engineers
- Geologists
- Hydrologists
- Soil scientists
- Chemists
- etc

12. Ultimately, the responsibility for determining what land may and may not be declared contaminated, by definition, lies with the Environmental Health Manager. He will, however, often need to rely on the advice of appointed, “suitable persons”. Under these circumstances criteria have been developed to assist in their selection.

## PROCEDURE FOR THE APPOINTMENT OF “SUITABLE PERSONS” FOR THE PURPOSES OF PART IIA

13. There are two prerequisites to commencing the process of appointing suitable external consultant / contractors, firstly:

- \* Adequate funding to support the process; and secondly
- \* A well qualified person, ‘in house’, to act in the Client role

14. The ‘in-house’ officer as well as having sufficient knowledge and experience to specify the contract, will be allowed sufficient time to monitor it also.

15. The Client officer will produce a comprehensive draft specification for each contract which clearly identifies the work to be carried out, its purpose, timetable and Client / Contractor responsibilities. A list of appropriate and suitably qualified companies will be compiled. Each of these will then be contacted in turn for an

informal discussion as to their capability, expertise and experience. Prior to commencing this process the Client officer will produce a selection of questions relevant to the contract to ask each company. The outcome will then result in a short list of companies who will be asked to quote / tender for the work based on a final specification.

16. A check list of information requirements is included at the end of this section.

17. The Client officer will be responsible for monitoring the contract to ensure:

The contractors are kept fully aware of their responsibilities at all times  
 Quality control requirements are met  
 Amendments are quickly agreed and documented  
 The time table is strictly adhered to  
 The aim of the contract is achieved

## CHECKLIST OF INFORMATION REQUIREMENTS

CLIENT'S INFORMATION REQUIREMENTS	REQUIREMENTS OF THE CONSULTANT
<b>1. GENERAL</b>	
1.1 Background on company capability	How long has the company been operating? What kind of work were they originally set up to do - is this an add on? Who traditionally are their clients?
1.2 Numbers and qualifications of staff	If a large company, what are the interests / sympathies of those in control. How many staff are available for this type of work, will they need to subcontract?
1.3 CV and availability of key staff	Who will actually be doing the job, what are their qualifications and experience? Practical experience is KEY. Do they understand the requirements of Part IIA? Knowledge of environmental law & local government systems will be important.
1.4 Details of QA systems including: Allocation of responsibilities Project Management Technical Procedures Technical review Training Assessment of external suppliers	Where appropriate, details of quality management systems indicating whether accredited by a third party, will be requested. What technical procedures will be used. How will quality of subcontractors is to be ensured.
1.5 Management of Health & Safety	Identify H&S management procedures where appropriate. Do they understand the fundamental requirements of H&S legislation?
1.6 Track record on similar projects	Have they done similar work for other local authorities?
1.7 Client references	Acquire details of recent similar projects.

1.8 Financial status	May not always be necessary but on large contracts where considerable financial outlay required need to demonstrate solvency. Bond may be required on large remedial contracts.
1.9 Details of insurance cover	Need to demonstrate insurance available 3 <sup>rd</sup> party liability and professional indemnity. Identify limitations / exclusions
1.10 Membership of professional and trade associations	May be necessary to make checks, Corporate membership of professional organisations, meeting CPD requirements?
1.11 Compliance with codes of practice	Can they demonstrate knowledge of the appropriate guidance, codes of practice etc relevant to the job?
<b>2. PROJECT SPECIFIC</b>	
2.1 Technical proposal	The proposal must make it absolutely clear that work will be carried out to comply with the requirements of the specification, what the results will be, and when they will be achieved.
2.2 Project management plan / working plan	A clear timetable must be available which states what stage will be reached by when and who will be responsible to deliver.
2.3 Details of sub contractors	Subcontractors will be necessary on large technical projects. Must state who they are, contact points and lines of responsibility.
2.4 Details of technical procedures	Again, the working plan must clarify all procedures and lines of responsibility.
2.5 Reporting	Reporting procedures must be made clear. The responsibility for meeting the agreed standard must lie with the contractor.
2.6 Programme & 2.7 Financial proposal	It may be that the Contractor will want to provide a guide price or include large contingency sums. The programme of work and the quotation must not be ambiguous. Stage payments and timetables must be firm and with perhaps penalty clauses for failing to deliver.
2.8 Conditions of engagement	Contracts need not be long and wordy, should define responsibilities of both parties, liabilities etc succinctly.

**APPENDIX 6**  
**SOURCES OF INFORMATION**

<u>Resource</u>	<u>Source</u>
Historic Maps	Council Archives HCC – Local History
Historic Land Use data	Council Archives Officer Knowledge Environment Agency (E.A.)
Geological Maps	E.A.
Hydrogeological Maps and Data	E.A.
Source Protection Zones	E.A.
Public Water Supply Abstraction Points	E.A.
Private Water Supplies	Environmental Health
Departmental Records	E.H. Planning Building Control
Hertsmere Local Plan	
Waste Management Plan	H.C.C.
Waste Management Licences	E.A.
Register of Closed Landfill Sites	E.A.

## APPENDIX 7.

### STAGE 1 SITE SPECIFIC RISK ASSESSMENTS

1. The method to be used for undertaking stage 1 site specific risk assessments will be based on the following model.
2. The Risk Assessment will be in three parts :
  - Part A – Review of the current and historical uses of the site.
  - Part B – Review of the environmental setting of the site.
  - Part C – A risk assessment of the information obtained in Parts A and B.
3. Part A.

Site Location and Details

Current Uses

Former Uses

Proposed Uses

Adjacent Uses

4. Part B.

Site Features

Surrounding Area Features – Surface waters  
Groundwaters

Geology

Residential Areas

Other obvious receptors

5. Part C.

An evaluation of the information obtained in Parts A and B to provide an overall risk rank within the Contaminant, Receptor, Pathway (CRP) Scheme :

Likelihood of <i>contaminants</i> on the site:	1	-	most unlikely
	5	-	good chance
	10	-	known to be present

Existence of <i>receptors</i> within area of influence:	1	-	most unlikely
	5	-	good chance
	10	-	known to exist

Likelihood of impact of contaminants on receptors ( <i>pathway</i> ):	1	-	most unlikely
	5	-	good chance
	10	-	certain

The CRP score will then be applied to the DETR Contaminated Land Report 6

scheme for prioritisation of sites ( see Sections 2.2.7 – 2.2.10 of Strategy for full details).