



**Epping Forest  
District Council**

**Statutory  
Contaminated Land Strategy  
Framework Document**

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

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# 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.”*

thus suggesting that it would be advantageous for the planning authorities to have available a list of potentially contaminated sites.

In 1988 the Town & Country Planning (General Development) Order required local planning authorities to consult with waste disposal authorities if development was 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, for the first time, 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 (Michael Howard) announced that the proposals for contaminated land registers were to be withdrawn and a belt and braces review of land pollution responsibilities to be undertaken.

This resulted in 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, "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;
- \* Encourage its development, and
- \* That multi functionality was neither sensible or feasible.

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.

## i.2 - EXPLANATION 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*.

## i.3 - NATIONAL OBJECTIVES OF THE NEW REGIME

The Government believes contaminated land to be, "an archetypal example of our

failure in the past to move towards sustainable development". The first priority has therefore been specified as the prevention of new contamination via the pollution control regimes.

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

- 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, thereby, "not disturbing 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 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 increase 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, in comparison with its predecessors, is also likely to encourage voluntary remediation. It is intended that companies responsible for contamination should assess the likely requirements of regulators and plan remediation in advance of regulatory action.

Those that undertake voluntary remediation will be able to gain an exemption from paying Landfill Tax. This exemption will be removed once enforcement action has commenced. This should therefore provide a significant incentive for voluntary remediation.

The Government also considers 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 remediation schemes as part of their redevelopment projects;
- b) clarify the circumstances in which future regulatory intervention might be necessary (for example, if the initial remediation scheme proved not to be effective in the long term); and
- c) set out the framework for statutory liabilities to pay for any further remediation should that be necessary.

If there is a change in use at a site, the site would then be dealt with under the planning regime.

#### i.4 - LOCAL OBJECTIVES

The Epping Forest District Council welcomes the introduction of Part IIA of the Environmental Protection Act 1990 which complements the Council's own Corporate aims and objectives.

One of the key aims of our **Best Value Performance Plan 2001/2002** for improving the physical environment is the production of a strategy for contaminated land by the end of 2001/02

The Epping Forest **Community Plan** was first published in 2000. The plan currently identifies 8 key themes, 3 of which are particularly relevant to this strategy document, as follows:

**Community Well-being.** making the district a safer place to work and live in.

**Protecting our Environment.** by preparing a strategy for identifying and dealing with contaminated land.

**Economic Development and Planning.** Through the production of a new District Local Plan covering the use of brownfield land.

Similarly Policy RP4 of the **Epping Forest District Local Plan (1998)** states that the Council will not grant Planning Permission for the development or reuse of land which it considers likely to be contaminated unless:

- (i) prior tests are carried out to establish the existence, type and degree of contamination; and
- (ii) if contamination is found, appropriate methods of treatment and monitoring are agreed with the council, pollution authorities and water companies; and
- (iii) the agreed methods of treatment include measures to protect or recreate

habitats of nature conservation interest.

and that the District Council will consult with Essex County Council, the waste disposal authority, regarding development proposals on, or within 250 metres of, land which has been used for the disposal of waste within the last 30 years. This is to address the potential problems of landfill gas (methane), including its lateral migration.

The **Essex and Southend on Sea Replacement Structure Plan 2001**, Policy BE1, states that existing built up areas will be used in the most efficient way to accommodate new development by the recycling of vacant, derelict, degraded and under used land to accommodate new developments.

The identification and safe re-use of contaminated land therefore plays a key part in the sustainable development of the area.

#### i.5 - ABOUT THIS STRATEGY

The Act itself states at section 78B (1) that:

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 (see appendix 1).

Section 78B (2) states that the authorities must act in accordance with guidance issued by the Secretary of State in this respect. Statutory guidance has now been published within Department of the Environment Transport & Regions Circular 02/2000, dated the 20<sup>th</sup> of March 2000. Specific technical guidance on the drafting of Inspection Strategies was also circulated in draft form for consultation on the 7<sup>th</sup> of April 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 in what time scale.

The strategy should be completed, formally adopted by the Council, and published, within a period of fifteen months from the publication of the guidance (by July 2001). Copies of the final document must also be forwarded to the Environment Agency. Subsequently the strategy must be kept under periodic review.

In order to satisfy the far reaching objectives of the new regime it will be necessary to investigate land throughout the whole of the District and collate significant volumes of information. This will ultimately enable the Authority to make the sometimes difficult, and inevitably complex decisions relating to its condition, 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, though the Environment Agency, County Council, English Nature, English Heritage, MAFF, and, any statutory regeneration bodies, should be consulted (see appendix 2 for details of consultees).

#### i.6 - ROLES AND RESPONSIBILITIES

The primary regulators in respect of these new powers are the **local authorities**. In the Epping Forest District the strategy will be under the control of the Head of Environmental Services and the Environmental Portfolio Holder. It should be noted that this is a complex and demanding enforcement role which will be carried out in accordance with the Council's enforcement policy and the Cabinet Office Enforcement Concordat March 1998.

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 Town & Country Planning, development control. The role in broad terms includes:

- \* 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 as 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 contaminated land.
- \* To act as enforcing authority for contaminated land designated a 'special site'
- \* To publish periodic reports on contaminated land

Where the presence of contaminated land has been confirmed the enforcing authority must:

- \*Establish who should bear responsibility for remediation
- \*Decide after consultation what must be done in the form of remediation 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

#### i.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 -

Significant harm is being caused or there is a significant possibility of such harm being caused; or

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 statutory guidance. Controlled waters include inland freshwater, groundwater and coastal waters (see appendix 3).

Local authorities must search their Districts for land which has both receptors, such as humans, controlled waters or ancient monuments, and sources of potential contamination. Where they have good reason to believe these both exist, they must undertake a formal risk assessment in accordance with established scientific principles in order to establish whether there is the potential for them coming together and causing harm or pollution as described. This is known as a, pollutant linkage.

Where they are satisfied that significant harm is occurring, or there is a significant possibility of such harm, or pollution of controlled waters, they must declare that a significant pollutant linkage exists and that the land is therefore contaminated land by definition. In every case where the land does not fall within the category of a, special site, they must commence regulatory action.

This involves a series of complex procedures which must include:

- \*A formal written record of the determination
- \*Formal notification of all interested parties
- \*Determination the physical extent of the land
- \*The extent and seriousness of the risks (need for urgent action)
- \*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 remediation of the site and recovery of costs where appropriate

A series of consultations must also be carried out at each stage with the ultimate aim of securing voluntary remediation (without the need for enforcement action). Where the land does fall within the definition of a special site (see appendix 1)), the Environment Agency become 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 part 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 remediation notice has not been complied with

In non urgent cases where a remediation notice is necessary and all the required consultations have been completed, the notice must be served on the appropriate person(s) no sooner than three months after the contaminated land has been determined 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 enforcing authority must go through the same processes again to identify appropriate persons and remedial actions.

The enforcing authority must at all times 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 has the power to recover costs in certain circumstances.

#### i.8 - SITUATIONS WHERE THIS REGIME DOES NOT APPLY

As stated in i.3 above, the primary aim of the Government is to prevent new contamination occurring. There are several situations therefore 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) - There are certain processes 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 prevention of pollution to 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. The same circumstances will apply when the new Pollution Prevention & Control regime (EC directive 96/61) comes into force.

b) **Waste Management Licencing** (Environmental Protection Act 1990 Part II) - All waste disposal and processing sites (including scrap yards) should be subject to licencing. Contamination causing harm, or pollution of controlled waters, should be dealt with as a breach of the conditions of the licence. In exceptional circumstances, where the problem arises from an unlicenced activity, it is possible that Part IIA could apply. An example of this would be a leak from an oil tank outside the tipping area.

Where there has been an illegal tipping of controlled waste (fly tipping) this 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) - Where a pollution incident has occurred and the pollutant is discharged directly into the body of water, or it has left land and it is entirely in the body of water (ie the land is no longer causing pollution), the Water Resources Act 1991 will apply.

d) **Discharge Consents** (Water Resources Act 1991 Part III) - No remediation notice can require action to be taken which would affect a discharge 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 from land contamination, this should be dealt with under the Health and Safety at Work etc Act 1974. 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 the Council suspects crops may be affected from 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. It should be noted, however, that remediation of the site if necessary would be carried out through 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 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. If however the land is investigated and found not to be contaminated land but, "land in a contaminated state" (defined as land where there are substances in, on or under the land which are causing harm, or there is a possibility of harm being caused), it also can not be considered a statutory nuisance for the purposes of Part III of the Act. Precisely in what circumstances might land be declared, "in a contaminated

state”, remains to be seen. Where land is not *contaminated land* or in a, *contaminated state*, but is causing a nuisance from smell, it could be considered a statutory nuisance as before.

#### i.9 LAND UNDER OWNERSHIP OF AN ENFORCING AUTHORITY

Where land owned by a local authority is found to be contaminated land, unless a special site, there will be no enforcing authority. Local Councils must undertake the same consultations, assessments and seek appropriate remedial works as necessary.

To this end a formal relationship should be maintained between the Department responsible for enforcement of the new regime and that responsible for Council owned land. A formal relationship will also need to be maintained between the County Council and enforcing authority. All information relating to the identification, assessment and remediation of Council owned land must be fully reported to satisfy the needs for transparency. See also i.10 below.

Where contaminated land is located outside the district, the council will treat that land as if it were situated within its area. Prior liaison will however take place between the two councils concerned to ensure that the most appropriate enforcing authority carries out any relevant action.

#### i.10 - THE NEED FOR TEAM WORKING

This strategy impacts on potentially all departments of the Council, in particular :

Planning and Development Control - the inspection of the District will identify areas of potentially contaminated land which may be developed, awaiting development, derelict, protected or green belt. 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 Local Development 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 will be essential to quantify risks.

Legal - 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.

Engineers and Highways - 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.

Information Technology - significant volumes of data will need to be held both on data base and geographical information systems. Support will be required on the use of these systems and data protection.

Amenities and Housing - land in use and controlled by these departments may be contaminated and require remediation. Officers responsible for conservation may need to be consulted on remediation and tree growth or eco-receptors.

Property - The Head of Environmental Services will need to lead the Council on the remediation of any contaminated sites it is found to be responsible for.

Finance - this legislation can have significant resource implications for the Council, both as an Enforcing Authority and land owner (see also i.11 below).

The need for close corporate team working to ensure the smooth implementation of the strategy can not therefore be overstressed.

#### i.11 - FINANCIAL AND MANPOWER IMPLICATIONS

The Explanatory and Financial Memorandum to the Environment Bill stated that the creation of the new contaminated land regime would have neither financial nor manpower implications. In the light of responses received to the draft guidance, however, the Government acceded that successful operation would necessitate considerable resources.

Accordingly, 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 is to be spent on remediation over the same period through the contaminated land Supplementary Credit Approval (SCA) programme.

Funding aspects of the strategy are considered in Part 8.

# The Strategy

## Part 1

Description of the epping forest district area and how its particular characteristics impact on the inspection strategy

### 1.1 INTRODUCTION

The Epping Forest District area lies in the south west of Essex and covers an area of 3,362 hectares. About 45% of the population live in the suburban commuter areas of Loughton, Buckhurst Hill and Chigwell in the south of the district adjoining the border with Greater London, 30% in the market towns of Epping, Ongar and Waltham Abbey and the remaining 25% in the surrounding rural areas, which include larger villages such as Abridge, Roydon, Nazeing, North Weald and Theydon Bois.

Waltham Abbey, Epping, Loughton, Buckhurst Hill and Chigwell all began as small settlements in forest clearings. By the beginning of the 19<sup>th</sup> Century the forest had ceased to be a Royal Hunting Ground and extensive areas were cleared to provide timber for ship building during the Napoleonic Wars. The arrival of the railways in the middle of the 19<sup>th</sup> Century resulted in large increases in local populations. Populations have since steadily increased with those of Waltham Abbey and Loughton almost doubling around the middle of the last century with the creation of several large London overspill estates.

Apart from a few small areas adjoining the Hertfordshire border, the entire district is underlain by London Clay, most of which itself is overlain by Boulder Clay brought across by glaciers from East Anglia during the last Ice Age. Most agricultural fields are drained and used to grow crops such as wheat, barley, rape, linseed and field beans, with livestock in the district being reared mainly on undrained pastures. Many horticultural glasshouses still remain, mainly along the valleys of the Rivers Lea and Stort, producing crops such as cucumbers and tomatoes.

The remnants of the ancient Forest of Essex, which once covered most of the district, remain on the agriculturally poorer sandier type soils of the Claygate, Head and Bagshot Beds. These soils form a ridge overlying the London Clay running from North Weald through Epping down to High Beach in the south west of the district and separate the Lea and Roding valleys. The forest is now known as Epping Forest and much of it has been designated as a Site of Special Scientific Interest (SSSI). Most of it is owned and managed by the Corporation of London (Epping Forest Act 1878), who are continuing to purchase further land.

The Rivers Lea and Stort form the county boundary with Hertfordshire in the west of the district. Extensive sand and gravel extraction has taken place along the floodplains over the last 50 years and most pits have been filled with wastes from domestic, industrial, commercial and building sources. Other pits have been left to form lakes, which are used for fishing, water sports or as wetland habitats. The Lea Valley Regional Park Authority (LVRPA), who were created under the Lea Valley Regional Park Act 1966, own and manage most of the open land along the Lea. There are 3 designated SSSIs in the park within the district and the LVRPA are continuing to purchase further land as it

becomes available.

The River Roding runs through the mainly agricultural eastern part of the district. To the south, in Chigwell, Loughton and Buckhurst Hill, gravel from the floodplain has also been extracted and some pits filled with waste. The District and Town Councils own some of this reinstated land, which is used mainly for recreation. The Essex Wildlife Trust manage a 49 acre site on the floodplain which is designated as an SSSI.

## 1.2

The District lies over the upper chalk aquifer of the London Basin (EA Major Aquifer). This aquifer and the overlying Lower London Tertiaries supply potable water to thousands of users via Three Valleys Water's public supply boreholes and hundreds of users via private water supply boreholes. Water from this aquifer is also used for agricultural and horticultural irrigation. Apart from a small area by the northern Hertfordshire border, the aquifer is confined by about 20-120 metres of London Clay and so is protected from pollution by surface and shallow subsurface contaminants within the district. The only pathways from the surface into this aquifer are from the unconfined chalk in Hertfordshire or via poorly maintained or redundant monitoring wells or extraction boreholes, some of which are now located within landfills.

There are shallow gravel aquifers present along the Rivers Lea, Stort and Roding (EA Minor Aquifers). These aquifers, which are unprotected from surface and subsurface pollutants, supply water for both domestic use and for irrigation purposes. They are in hydraulic continuity with both the old unlined landfills and the lakes and rivers. There are also many smaller shallow aquifers in the gravel terraces left by the old course of the pre-Anglian River Thames and others in small pockets in the Boulder Clay (EA Minor Aquifers & Non Aquifers). These aquifers are also used for domestic water supplies and likewise are unprotected and susceptible to pollution.

There are thousands of kilometres of controlled surface waters in the district, which are also very susceptible to pollution. Water is abstracted from the River Lea just downstream from the district and many surface waters are used for agricultural irrigation. Practically every site with a former contaminating use in the district will therefore require assessing to ascertain the extent to which controlled waters are being polluted. Sediments in the Lea and the upper flood relief channel and its lagoons, which have been cut through old landfills and receive high volumes of effluent from Rye Meads STW, will also require assessment to ascertain their impact on controlled waters and fisheries.

## 1.3

Gun Powder Mills were established in Waltham Abbey in the 17<sup>th</sup> Century and had already become extensive by the time the Board of Ordnance took them over in the 18<sup>th</sup> Century. They closed in 1991 and the site, which lies along 3½ km of the Lea floodplain, is currently being redeveloped. Other old industrial sites in the town, for example a former percussion cap manufacturer and plastics factory, have already been redeveloped for housing and a 7 acre site where pesticides were manufactured until last year is due to be redeveloped shortly. Apart from a few smaller private sites, only the Council's industrial estate remains.

A large glasshouse industry had developed by the end of the 19<sup>th</sup> Century, with nurseries covering large areas of the Lea Valley and to a lesser extent other areas in the district. Many of these nurseries, with their large oil fired asbestos lagged glasshouse heating systems, have been demolished during the past 50 years to enable gravel to be extracted and most of the resulting pits have been filled with waste. Small businesses such as car repairers, scrap yards, haulage depots and bus companies have set up on some of the redundant sites, whilst large housing developments have taken place on others. These type of small businesses have tended to follow the traditional rural waste disposal methods of burning, burial or soakage on site.

Clay was also extracted for brick and tile making at numerous sites throughout the district and where pits have been filled they will require assessment. For example the old gas works sites at Ongar and Epping were both associated with brick works and their old clay pits could contain gas works waste. There were also several smaller private gasworks sites in the district which will require assessing, as well as a few old iron works sites.

There are over 25 kilometres of drained electrified railway track present in the district. Contamination from sub stations, cables, embankments containing Victorian waste fills and also old goods yards and coal yards, a couple of which have already been redeveloped for housing, will require assessment. Many fields have been used for spreading sewage sludge over the years and more recently clay pigeon shooting businesses have increased. Fields where these types of activities have taken place will need assessing, as will dozens of present and former sewage works sites.

A large number of former and present garage sites, where fuel was stored or vehicle repairs carried out, will also require assessing as will current and former scrap yard sites and local authority depots. This authority owns the 2 main industrial areas present in Loughton, where industries such as the Bank of England Printing Works are sited. Former industrial sites in the old part of town, such as a percussion cap manufacturers, will require identification and assessment as will numerous other small industrial sites throughout the district. There are also about a dozen old hospital sites in the district which require assessing, including 2 which have been redeveloped for housing, as well as a large former radio station site at North Weald.

This authority own the airfield at North Weald, which was formerly part of an RAF base occupied between 1939 and 1964. The airfield is still used for private aircraft and there are industrial and warehousing units present in the redundant hangers and buildings. During WWII the RAF also used the privately owned airfield at Stapleford Tawney for fighter aircraft. This airfield is also still used for private aircraft and light industrial activities. There was also a USAAF bomber base at an airfield at Ongar and another also used for very heavy bombers at Matching, which lies partly in this district and partly in Uttlesford. Both these airfields have returned back to mainly agricultural use, although some redundant buildings are now used by small businesses. There was also an RAF balloon base at Chigwell and old MoD camps, fuel storage depots, munitions dumps, rifle ranges, stores and depots throughout the district. All these former MoD sites will require identifying and assessing.

There has been wide variation in the standards to which development sites containing contaminants have been remediated in the past, particularly where no planning conditions were present or when building work was underway before remediation was

even considered. All sites where remediation works have been carried out will need to be reassessed and further investigations carried out where there is low confidence in the sampling, analysis or reinstatement works carried out. The integrity of barriers, such as membranes or hard surfacing, will also need to be monitored, where these methods have been employed to prevent contaminants reaching receptors.

## STRATEGIC APPROACH TO THE IDENTIFICATION OF CONTAMINATED LAND IN THE EPPING FOREST DISTRICT.

1.4 In developing a strategic approach it is necessary to consider -

- \* The extent to which any specified receptors are likely to be found in the District;
- \* The history, scale and nature of industrial or other potentially contaminative uses;

1.5 Land can only be considered contaminated if it impacts in a certain way on specified receptors, these are:

a) Human beings

b) Eco systems:

- Areas 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
- Marine nature reserves**  
Wildlife & Countryside Act 1981 section 36
- Areas for the special protection of birds**  
Wildlife & Countryside Act 1981 section 3
- 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) Property:

- Buildings (including below ground)**
- Ancient monuments**
- All crops including timber**
- Produce grown domestically or on allotments for consumption**
- Livestock**
- Other owned or domesticated animals**
- Wild game subject to shooting or fishing rights**

d) Controlled Water: Territorial sea water (to three miles)

- Coastal waters**
- Inland fresh waters (rivers, streams, lakes, including the bottom / bed if dry)**
- Ground waters**

Water Resources Act 1991 s104 (see also appendix 3)

1.6 In undertaking its duties to inspect the District under section 78B (1) of the Act, the Council will take into consideration the particular characteristics of the area, including:

Relevant geology, hydrogeology and hydrology

The location of: sensitive water receptors  
sensitive property receptors  
relevant ecological receptors  
all existing human receptors, and;

Potential sources of contamination

1.7 Consideration will also be given to the existence of sites and receptors which if found to be contaminated land would be designated special sites (see appendix 1).

## 1.8 POTENTIAL SOURCES OF CONTAMINATION

a) INDUSTRIAL HISTORY - A comprehensive list of potentially contaminative uses has been appended at 4. The first step in the process of identifying potentially contaminated sites will be to closely examine historical data in the form of old Ordnance Survey plans and trade directories from mid 19<sup>th</sup> century to the present day. A lot of past industry will also still be within recent memory so local knowledge will be important at this stage. To aid this process all the Town and Parish Council's will be consulted.

b) CURRENT INDUSTRY - The present industrial areas of the District are potential sources of contamination and these will be inspected in accordance with the statutory guidance to establish whether there is a potential of contamination to exist, and, if there is, whether it is controlled by another agency.

c) ENVIRONMENTAL PROTECTION ACT 1990 Part I - 'Part B' processes authorised for air pollution control by this Council.

There are currently 35 processes authorised by the Council under Part I of the Act. These range from lead glass manufacture to the unloading of petrol. Many of these processes have the potential to pollute the land, but there are no other statutory methods of control.

d) ENVIRONMENTAL PROTECTION ACT 1990 Part I - 'Part A' processes authorised for integrated pollution control (IPC) by the Environment Agency.

There is currently 1 process authorised by the Environment Agency under Part I of the Act. The IPC regime should control unauthorised discharges to land but their presence will need to be noted and the potential for long term pollution assessed, particularly post closure.

e) HAZARDOUS SUBSTANCES – Essex County Council is the 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 (see f below). There are currently no authorised sites in the District. A register is maintained for this purpose by the County Council.

f) 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). There are currently no sites within the District.

g) It should be noted that all sites notified to the HSE under the Notification of Installations Handling Hazardous Substances Regulations 1982 (NIHHS sites) and COMAH sites, will be held on the hazardous substances register, so there should be no need to consult with the HSE on their location.

h) 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.

i) CURRENT LANDFILL AND SITES COVERED BY A WASTE MANAGEMENT LICENCE - are licenced by the Environment Agency under the provisions of Part II of the Environmental Protection Act 1990. Details of all these sites have already been provided by the Agency for this purpose.

j) 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. Closed landfills in the District will be identified and their association with any specified receptors considered in detail.

k) SEWAGE WORKS AND LAND USED FOR THE DISPOSAL OF SEWAGE SLUDGE - land dedicated for the disposal of sewage sludge is notified to the Environment Agency under the, Sludge (Use in Agriculture) Regulations 1989. This land, together with all operating and redundant sewage works will be identified and assessed.

l) MINES AND MINERALS EXTRACTION - the geology of the area has resulted in large areas used for the extraction of minerals, particularly sand and gravel. Many of the resulting pits then being filled with refuse or other materials. These can present a particular risk to water resources. An attempt will be made to identify all past extraction sites which have been filled and assess the risk they present.

m) 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.

n) MINISTRY OF DEFENCE LAND - there are no current areas occupied by Defence Agencies. However, there are several areas formerly used by Defence Agencies. Their potential for contamination could be significant therefore they will be investigated, in association with the Environment Agency as required, in

accordance with the statutory guidance.

o) 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 remediation may be unknown, in others it may be known and but the remediation suspected of being inadequate.

As mentioned above, a more comprehensive list of previous uses considered potentially contaminative are listed in appendix 4 for information. Any site identified with the potential to cause pollution will be assessed.

## 1.9 POTENTIAL SPECIFIED RECEPTORS

a) HUMAN - The present population of the District is 116,000 (1991 census) distributed amongst the 6 main population centres of Loughton, Chigwell, Buckhurst Hill, Waltham Abbey, Epping and Ongar. The remainder distributed throughout the many villages and smaller settlements of the rural area. Human receptors may therefore be present to some degree at almost any location within the District. The potential for persons either living on or frequenting a potentially contaminated site will be considered in every case, but priority will be given to sites with infants.

b) PROPERTY. BUILDINGS - All buildings and underground services (within the footprint of the building) are potential receptors and will be considered in every case where contamination and buildings exist.

c) PROPERTY. ANCIENT MONUMENTS - as listed by English Heritage will be specifically identified as part of the strategy and the potential impact of contaminants considered. A list containing some of the scheduled Ancient Monuments is provided in the proposals map of the Local Plan.

d) PROPERTY. AGRICULTURAL AND HORTICULTURAL CROPS - Being a largely rural area crop growing regions will not be specifically identified but taken into consideration as necessary. Where contamination is known or suspected associations with poor yield and crop failure will be investigated.

e) PROPERTY. TIMBER CROPS - There are several regions of the District growing timber. Crop failure as a result of contamination is, however, most unlikely except perhaps where trees have been planted on contaminated land as part of a remediation programme.

f) PROPERTY. HOME GROWN PRODUCE - There are many acres of allotments within the District and these will all be identified and their potential for contamination considered as a result of previous uses or activities. Similarly any domestic gardens likely to be contaminated will be identified and assessed.

g) PROPERTY. AGRICULTURAL LIVESTOCK, GAME AND OTHER OWNED ANIMALS - Again being a largely rural area the presence of livestock in an area will not be specifically identified but taken into consideration as necessary.

h) ECOLOGICAL RECEPTORS - All receptors listed in 1.5 (b) above will be identified as part of the inspection strategy. There are several specified sites including SSSIs and other areas of ecological importance. Significant impact of contamination is unlikely but all areas will be identified, examined and any risks carefully quantified with English Nature and the Environment Agency.

i) GROUNDWATERS. AQUIFERS - As mentioned above the area relies heavily on the principal chalk aquifer. All aquifers will be specifically identified with their location, depth and vulnerability according to cover. Potential risks from identified sources of contamination will be considered carefully with the Environment Agency.

j) WATER. PUBLIC WATER SUPPLIES - All public water supply abstraction points will be identified with their location, depth, strata / surface water supply they draw from and volume of supply.

k) WATER. PRIVATE WATER SUPPLIES - There are many private water supplies in the District which are often drawn from shallow sources. The protection of these is particularly important due to the heavy reliance paid on them by local communities. This Council already monitors these as part of its duties under the Water Industry Act 1991 Part II and Private Water Supplies Regulations 1991.

l) CONTROLLED WATER, OTHER AUTHORISED ABSTRACTION POINTS - All authorised abstraction points will be identified such as those used for agricultural or recreational use.

m) SURFACE WATERS, OTHER SPECIFIED RECEPTORS - All other water receptors such as rivers, streams, tributaries, reservoirs, lakes etc will be identified as part of the inspection strategy.

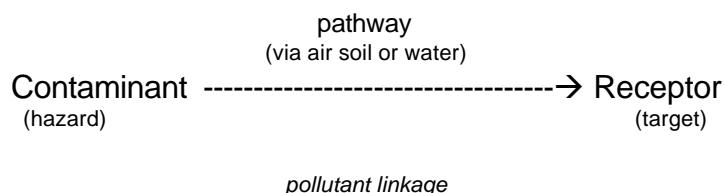
Details of statutory and non statutory consultees and contact points are included in appendix 2.

## Part 2

### Identification Of Potentially Contaminated Sites And Their Prioritisation According To Risk

2.1 The identification of contaminated land will be carried out in a ordered, rational and efficient manner based firmly on the principles of risk assessment. Significant and imminent risks to human health will always be given the highest priority.

2.2 Before land can be declared contaminated by definition a, significant pollutant linkage, must be identified.



2.3 Unless all three elements of a pollutant linkage are identified land can not be considered contaminated. All search strategies will therefore be prioritised 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.

2.4 If, for example, an area of land is known to be badly affected with potentially harmful contaminants, it will not be considered of the highest priority if studies confirm there are not likely to be pathways to specified receptors. 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 likely and the consequences would result in significant harm or pollution of controlled waters, then a significant pollutant linkage will be said to exist and the land will be declared contaminated land by definition.

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  
(Then a pollutant linkage exists)
- iv) A good chance that the pollutant linkage will result in significant harm to one of the specified receptors, or, pollution of controlled waters.

2.6 The strategy for identification will therefore be based on 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 the area

Previous uses considered potentially contaminative are listed in appendix 4.

2.7 In order to ensure all further investigative work relates directly to seriousness of the potential risk and therefore the most pressing problems are identified and quantified first, potentially contaminated land will be prioritised and assessed using the guidance set out in DETR Contaminated Land Research Report 6, entitled, 'Prioritisation & Categorisation Procedure for sites which may be Contaminated' (CLR 6).

2.8 The CLR 6 procedure is based on the Contaminant – Pathway – Receptor approach to contaminated land risk assessment and will be adapted to accommodate property receptors such as livestock, timber, ancient monuments and buildings. Ecosystems will not be prioritised or assessed using this system. Should any sites be identified in any SSSI's or nature reserves we will liaise directly with the relevant trust or authority's ecologists regarding prioritisation.

2.9 After identification a **preliminary prioritisation** of each potentially contaminated site will be carried out based on an assessment of the presence and proximity of receptors. This process enables sites where humans may have greater exposure to contaminants to be assessed before those with less exposure and for sites with human receptors to be prioritised over those with only agricultural or controlled water receptors.

During **preliminary prioritisation**, sites will be assessed under 3 headings: Development (humans, plants and the built environment), Surface Water and Groundwater. Flow charts for each heading will be used to place each site into one of 3 preliminary prioritisation groups (A-C) in each heading. Groundwater aquifers used for Private Water Supplies will be zoned to enable their inclusion under the groundwater assessment heading.

Each of the sites within the 9 groups will then undergo further prioritisation by a suitably qualified scientific officer, taking into account for example the likelihood of acute effects from possible contaminants and the number of receptors likely to be affected, before **assessment** is carried out.

## Part 3

### Obtaining Further Information On Pollutant Linkages And The Risk Assessment Process

3.1 Each potentially contaminated site in the priority assessment groups will then in order of priority undergo an **assessment** using more detailed information about the contaminants likely to be present, the pathways and the receptors. A desk top study will be carried out to obtain more detailed information about each site and it may also be necessary for a brief site visit to take place to confirm or identify evident hazards on the site. Using this information the sites will then placed into one of four **Priority Categories** for investigation or long term monitoring.

During **assessment** sites will be assessed under 4 headings: Development (residential, allotments, agricultural land, commercial or industrial use, public open space or amenity), Development (unoccupied land), Surface Water and Groundwater. Flow charts for each heading will be used to place each site into one of the 4 priority categories within each heading. For example sites with humans assessed under Development (residential etc) will be put into **Priority Category 1** where there is the possibility of direct contact with soil contaminants via ingestion, inhalation or skin contact or there is a risk of exposure from explosive or asphyxiant gases or where there are suspected problems actually occurring, or into **Priority Category 2** where there is a possibility of indirect contact via contaminated food or drinking water. Sites where only vegetation or animals not used for human consumption are present will be placed in **Priority Category 3**, whereas sites only likely to affect buildings will end up in **Priority Category 4**.

3.2 It will then be necessary to prioritise further the sites within each Priority Category, starting with Category 1, taking into account the likelihood of acute effects from possible contaminants, the number or type of receptors likely to be affected etc. All assessments will be carried out by a suitably qualified scientific officer with access to specialist advice where necessary.

3.3 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 3.11 below).

3.4 It must be understood that the assessments at this stage are made on a limited amount of incomplete basic data and information, such as old surveys, maps, geological information etc. As more knowledge of the site is obtained, these assessments will be revised and their Priority Category may change. The assessment of a site as Priority Category 1 does not necessarily infer the existence of a significant risk to one of the specified receptors, but it does identify the need for priority assessment of risk potential.

3.5 The detailed investigation of contaminated land is invariably a very time consuming and expensive process, therefore it must be emphasised that all investigations will be carried out using a phased approach and terminated immediately it is clear that no significant pollutant linkages exist.

3.6 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 5.13 of this strategy.

3.7 OBTAINING DESK TOP INFORMATION - As has been explained in the introduction to this strategy, 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. Also the consultation of others who may possess information such as:

The Environment Agency  
Ministry of Agriculture Fisheries and Food  
The Health & Safety Executive  
Essex County Council  
Developers  
Previous occupiers  
and others

As outlined in the Memorandum of Understanding (MoU) between the Environment Agency and the Local Government Association (June 2001), the Agency will provide site specific data to the Council upon completion of the prioritisation stage of their strategy in order to proceed to the implementation stage. Site specific requests will be made in writing to the Area Contaminated Land Officer.

Details of several other sources of information are listed in 1.8 above.

Once sufficient information has been obtained which confirms pollutant linkages do not exist, or, if they do, they are not significant, 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. Then arrangements will be made to keep the situation under review.

3.8 INSPECTION OF LAND - Where evaluation of all available data suggests a significant pollutant linkage may exist, it may 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 an adequately qualified person. The utmost discretion will be used at all times to minimise the effect on occupiers of the land.

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

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

To ensure the most appropriate technical procedures are employed the Council will have regard to the most up to date guidance available.

**3.9 POWERS OF ENTRY** - Statutory powers of entry are conferred on the Council to enable it to carry out its functions under Part IIA. These are also considered in appendix 5. 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.

**3.10 LAND WHICH MAY BE A SPECIAL SITE** (see appendix 1) - 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 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 unless it is a special site.

**3.11 DETERMINING LAND IS CONTAMINATED** - There are four possible grounds for determining land contaminated:

- a) Significant harm is being caused
- b) There is a significant possibility of significant harm being caused
- c) Pollution of controlled waters is being caused
- d) Pollution of controlled waters is likely to be caused

In making any determination the Council will take all relevant information into account, carry out appropriate scientific assessments, and act in accordance with the statutory guidance. The determination will identify all three elements of the pollutant linkage and explain their significance.

**3.12 WHERE THE SIGNIFICANCE OF A POLLUTANT LINKAGE CAN NOT BE ADEQUATELY DETERMINED** - Situations may arise where, on the information available, it is not possible to determine whether a pollutant linkage is significant in accordance with the statutory guidance. In such case the Council will determine that, on the balance of probabilities, it would seem the land does not fall within the statutory definition of contaminated land, but the situation will be kept under review and reopened at any time new information becomes available.

3.13 Similarly, inspection may identify contamination that would form a significant pollutant linkage should new receptors be introduced. In such circumstances this information will be carefully recorded and the site monitored where the introduction of relevant new receptors seems likely. Should such a site be identified for future development the information obtained during the investigation will be made available to the planning officer and the developer.

## COMPLAINTS FROM THE PUBLIC

3.14 Complaints will continue to be received about fly tipping, accumulations, and the potential for contaminated land. These will be investigated in accordance with existing protocols and enforcement policy to establish whether the complaint is justified. If so, the particular circumstances will be evaluated to establish which enforcement process would be most appropriate. See also i.8 above, where the new contaminated land regime does not apply.

3.15 Complaints may also be received about the fact that a particular site has been identified for further investigation. This could give rise to concern, especially where a potential sale has failed as a direct result of the suggestion that the land 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 and in accordance with the Council's Community plan. This is considered also in Part 6 on data handling and access to information.

## Part 4

### The Written Record Of Determination And Formal Notification

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

- a) a description of the pollutant linkage(s) confirmed, including 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.

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 remediation ('appropriate persons' in the guidance)
- d) the Environment Agency

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 this time and keep the situation continually under review as more information comes to light.

4.4 If the Council are of the opinion that the contaminated land is a special site (see appendix 1) it will inform the Environment Agency of that decision also. Under the joint Memorandum of Understanding (MoU) between the EA and the Local Government Association (LGA) of June 2001, the following has been agreed:

"The Agency and Local Authorities agree that, under normal circumstances, each would seek to agree with the other on matters related to determination of contaminated land under Part IIA and the designation of contaminated land as a Special Site, where in accordance with the Contaminated Land (England) Regulations 2000. Both parties agree that disputes on these matters between regulators are not beneficial to the joint overall aim of promoting the identification and effective management of land contamination, and are wasteful of regulatory resources. It is further agreed that referrals and other opinions such as judicial reviews should be used only as a last resort, and that all available means should be used to best effect to reach an agreement. In particular, both parties agree to:

- i) For potential Special Sites: ensure full and open discussion of the circumstances of a site, in the situation where the Agency has carried out detailed inspection on behalf of the authority pending determination of the site as contaminated land.
- ii) For contaminated land: ensure full and open discussion of the circumstances of the land associated with the requirement for an authority to seek the advice of

the Agency, pending the authority making a decision about whether the land should be classed as a Special Site.

Both parties agree that the 21 day period allowed for the Agency to formally register disagreement with an authority notification about Special Site status (prior to referral to the Secretary of State for decision) is insufficient for detailed exchange of views and that this exchange must be effected prior to the formal notification".

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

4.6 The legislation and statutory guidance has been designed to try to encourage voluntary remediation (without the need for enforcement action). The formal notification procedure commences the process of consultation on what remediation 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

The regulations also provide an incentive to undertake voluntary action in that any materials that require disposal as a result of voluntary remediation will be exempt from landfill taxes. The exemption does not apply to materials generated as a result of a remediation notice having been served.

4.7 The appropriate persons will also be provided with written explanations of the test for exclusion and apportionment.

4.8 It may be at this stage that the Council will need further information on the condition of the site to characterise any significant pollutant linkages identified. If that is the case an informal attempt will be made to obtain this information from the appropriate persons already identified.

## Part 5

### Liability & Enforcement

5.1 Land may be declared contaminated upon the identification of only one significant pollutant linkage. Full liability can not therefore be determined until all significant pollutant linkages on the site have been identified (see also 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 remediation actions
- iii) Attributing responsibility to liability groups
- iv) Excluding members of liability groups
- v) Apportioning liability between members of a liability group

5.2 These procedures are complex and cumbersome. 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, generally speaking the polluters, but also included are persons who, "knowingly permit". This includes developers 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. These are known as class 'B' persons.

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

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.

**5.4 APPORTIONMENT OF COSTS** - Generally speaking 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). If someone is seeking to establish an exclusion or influence an apportionment to their benefit then the burden of providing the Council supporting information lies with them.
- iii) Where there are agreements between appropriate persons the local authority has to give effect to these agreements.

**5.5 LIMITATION ON COSTS TO BE BORN BY APPROPRIATE PERSONS** - There are

six tests specified to identify Class ‘A’ groups who should be excluded from liability. These will be applied in sequence and separately for each pollutant linkage. The exclusion of Class ‘B’ persons is much less complex, the single test merely excludes those who do not have an interest in the capital value of the land. Tenants therefore are excluded.

5.6 When the Council has apportioned the costs of each remediation action and before serving remediation notices, it will consider whether any of those liable may not be able to afford it. If, after taking into consideration the statutory guidance it decides that one or more of the parties could not, it will not serve a remediation notice on any of the parties. The Council will instead, consider carrying out the work itself and produce and publish a remediation statement.

## THE ENFORCEMENT PROCESS

5.7 Before remediation notices are served the extensive consultation process will be completed and ample encouragement given 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. This could be a difficult and most protracted 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.

The Council will inform the Agency that it has served a remediation notice/declaration/statement.

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

- \* That the remediation actions will not be carried out otherwise.
- \* That the Council has no power to carry out the work itself without serving formal notice.

5.9 If these are met the Council will serve a remediation notice on each appropriate person. It can not be served less than three months after formal notification that the land is Contaminated unless the urgent action is deemed necessary (where there is imminent risk of serious harm).

5.10 SPECIFYING REMEDIATION - The Head of Environmental Services will specify what remediation measures are to be carried out in the remediation notice. These will be both appropriate and cost effective employing what the statutory guidance terms, ‘best practicable techniques’. The aim of the remediation will be to ensure that the land is no longer contaminated, taking the shortest and lowest cost route. This means that in most cases cutting off the pathway, for example by hard surfacing, will be likely, rather than removing the contaminant or receptor.

5.11 The “reasonableness” of the requirements are, however, paramount, a concept which is considered at some length in the guidance. It is determined in relation to the cost of carrying out the remediation against the cost of failing to (ie the costs, or

potential costs, resulting from the continuing pollution).

## REMEDIATION BY THE LOCAL AUTHORITY

5.12 Before the Council can serve a remediation notice it will first determine whether it has the power to carry out any of the remediation 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 remediation
- \* In default of a remediation notice

Orphan Sites are those where it is not possible after, ‘reasonable’ enquiries to find anyone responsible for them (class A or class B persons), or, where persons can be found but they are exempted from liability for specified reasons. These are described in the statutory guidance as, ‘**orphan linkages**’.

Exemptions apply where:

The land is contaminated by reason of pollution of controlled waters only and no class A persons can be found (this means class B persons can not be held liable for polluting water from land).

The land is contaminated land by reason of pollution of controlled waters from an abandoned mine

The person was acting in a ‘relevant capacity’ (insolvency practitioner / official receiver etc).

In such cases the enforcing authority should bear the cost of the remediation in accordance with the Secretary of State’s guidance.

## URGENT ACTION

5.13 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 (see 4.4 and appendix 5).

5.14 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 remediation.

5.15 The Council will undertake the remediation 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 remediation.

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

## Part 6

### Data Handling And Access To Information

6.1 The Council is required by Statute to produce this contaminated land strategy and formally publish it by the end of June 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 6.13 below).

The Council must provide information to the Agency whenever a site is designated as contaminated land and whenever a remediation notice, statement or declaration is issued or agreed. We plan to use the standard forms provided by the Agency for this purpose.

### THE ENVIRONMENTAL INFORMATION REGULATIONS 1992

6.2 Implementation of the strategy will, however, also result in significant volumes of data which will be held on computer data bases and geographical information systems, as well as in paper form. There is no statutory obligation to disclose this information therefore the Council must comply with the requirements of the Environmental Information Regulations when dealing with requests for disclosure.

6.3 These Regulations require local authorities to make any environmental information they hold available upon request, subject to certain exemptions. These are complex but it would be likely that the Council will have to respond to requests for information on land it has identified as part of, for example, the inspection of the District, as outlined in Part 2 of this strategy. See also 2.15 above on complaints about information held.

6.4 Below are broadly the exemptions to the right of environmental information. In all circumstances where there is doubt, the solicitor to the Council will be consulted.

Where 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.

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

6.6 It has been suggested that information held as a result of the Council's initial inspection of the District and subsequent prioritisation for further investigation, could be classified as, 'a record which is in the course of completion', for the purposes of the Regulations, and therefore not be disclosed. Whilst this interpretation is appealing, it should be understood that sites should not be so identified unless there are sound reasons, based on scientific judgement, that a pollutant linkage may exist. Also once the preliminary inspection of the District has commenced, each assessment about each

and every site, could constitute a, 'record', in itself.

6.7 More significantly, however, should a third party purchase land following a refusal on the part of this Authority to supply information requested on its condition, and the Authority had identified it at that stage as potentially contaminated land, that party may wish to seek a remedy against the Council should the site be subsequently declared contaminated land and loose value as a result.

6.8 Requests for information will therefore be dealt with promptly and no later than 8 working days after they are made. A charge may be made for the supply of information in accordance with the Regulations. Where the Council must refuse a request for any of the reasons stated in the Regulations it will provide details of the reasons in writing at no cost to the applicant.

## THE DATA PROTECTION ACT 1998

6.9 The Data Protection Act applies to all personal data that is processed automatically as well as some data processed manually. The Act seeks to give some protection to persons (known as data subjects) in respect of three potential dangers:

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

6.10 Personal data is defined as data consisting of 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, there is no age limit.

6.11 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. The matter will therefore be considered in detail with the Solicitor to the Council and the Data Protection Officer before records begin to be compiled.

## CONTENTS OF FORMAL CONTAMINATED LAND REGISTERS

6.12 The only information required to be stored on a formal register is that relating to regulatory action and remediation. The contents are specified at length in schedule 3 of the Contaminated Land (England ) Regulations 2000. This formal contaminated land register will be maintained at the Civic offices. Members of the public will be able to view the register free of charge during normal office hours. . Requests for copies of documents can be made to the Head of Environmental Services, for which there may be a charge.

## Part 7

### Quality Control, Performance Indicators And Arrangements For Review

#### 7.1 The Government has stated -

“The DETR will be developing performance indicators to assess overall progress in the task of identifying and remediating our inherited legacy of contaminated land”.

#### 7.2 No such performance indicators have been developed to date, but it is suggested they will include:

- a) Measures of the scale of regulatory activities; and
- b) Indicators of the overall progress in the task of identifying and remediating contaminated land.

#### 7.3 It is the Government’s intention in due course to establish targets for overall progress.

#### 7.4 COMPLAINTS AND INFORMATION FROM MEMBERS OF THE PUBLIC - This is also considered in 2.14 and 2.15 above. Procedures are in place to:

- X Record that information or a complaint has been received;
- X Demonstrate an appropriate officer has designated to deal with the request;
- X Record the request and response; and
- X Ensure appropriate records are maintained.

#### 7.5 As part of this Council’s on going commitment to improving quality of service the following performance criteria are to be included in the Service Delivery Plan.

- i. To respond to a complaint / enquiry within 3 working days and,
- ii. To commence investigation of the concern where needed within 14 working days.

## REVIEW

#### 7.6 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 may be a continuum, balancing a systematic approach with the availability of resources. The Council has a duty to review its inspection strategy on a regular basis and to meet its statutory responsibilities two main aspects of review need to be built into this strategy:

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

We will be formally consulting the EA on any reviews of the Contaminated Land Strategy.

7.7 In addition to the routine review of inspection findings (see 2.11, 2.16, 3.8, 3.14, 3.15, 4.3 above) there will be situations which will trigger re-assessment including:

- X Change of use of surrounding land (introduction of new receptors)
- X 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
- X Identification of a localised effect which could be associated with the land
- X Responding to new information

7.8 The strategy as a whole will be reviewed by the Head of Environmental Services at least annually and any proposed changes will be reported to Members and incorporated as necessary. Particular matters that will be kept under review include:

- X The content of the strategy generally
- X Priorities for further investigation of potentially contaminated sites
- X The potential for the introduction of new receptors
- X The potential for new contamination
- X Progress on voluntary remediation
- X The enforcement process generally and the identification of appropriate persons particularly
- X Identification of special sites
- X Progress with the implementation

## Part 8

### Projected Costs And Timetable

8.1 As outlined in i.10 above, the Government has identified that to implement this highly complex and demanding piece of legislation will involve local authorities in considerable expenditure. As a result some £95M has been made available over three years as part of the standard spending assessment (£12M each year), with the rest available through the contaminated land supplementary credit approval (SCA) programme.

8.2 A part time member of staff has been employed for 6 months to enable the Council to implement the requirements of Part IIA.

8.3 The next stage is the inspection of the District, identification of potentially contaminated sites, and their prioritisation for further more detailed inspection. This has been estimated to cost between £10,000 and £20,000 and will be commenced by Officers within the Environmental Control Group during the financial year 2001 – 2002.

8.4 Subsequently potentially significant sums may be required to make more detailed investigation of sites and, possibly take enforcement action and carry out remediation action. It is very difficult at this stage to estimate what the full inspection of the District will reveal, and how much further work it will necessitate. It is therefore proposed to allow a further three years after the full inspection of the District to complete detailed investigations allowing a sum of £30K per annum, which is rolled over to the next year if it is not required that year.

8.5 Should a significant investigation and / or remediation be identified, it would be anticipated that an application for SCA would be made specifically relating to that site.

8.6 It should be noted that these arrangements relate specifically to the Council's enforcement role and not that as land owner. Should land in possession of the Council be identified as contaminated land then funding of remediation will be considered on a case by case basis. In the event of significant costs being involved it is likely that an application will also be made via the contaminated land SCA scheme.

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 - 2002
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	2002 - 2005

# APPENDICES

## APPENDIX 1

### SPECIAL SITES

1. Once a local authority has identified land as contaminated land by definition, it must also consider whether it falls into the category of a special site. Special sites are sites where, more often than not, the Environment Agency have had, or still have, an 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 simple terms, however, they include land:-

- X Polluting controlled waters (in certain circumstances - see appendix 3);
- X On sites subject to Integrated Pollution Control (see Environmental Protection Act 1990 Part I - Prescribed Processes and Substances Regulations 1991 schedule 1 part A);  
With waste acid tar lagoons (on sites used for refining benzole, used lubricants or petroleum);
- X Used as an oil refinery;
- X Used to manufacture or process explosives;
- X Used to manufacture or dispose of atomic, chemical or biological weapons (non biological contamination only);
- X Used for other nuclear purposes;
- X Owned or occupied by a defence organisation for naval, military or air force purposes (not off base housing / NAFFI);
- X 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.

4. Procedure in relation to the investigation and declaration of special sites is covered in 3.11, 4.4, 4.5 and 5.15 above.

## APPENDIX 2

### LIST OF CONSULTEES AND CONTACT POINTS

#### COUNCILS

##### **1. Internal**

Planning Officer – Head of Planning Services  
Building Control Officer- Assistant Head of Planning Services (Building Control & Estates)  
Solicitor – Head of Legal & Administration Services (Solicitor to the Council)  
Engineer – Assistant Head of Environmental Services (Highways)  
IT – Assistant Head of Finance (IT)  
Data Protection Administrator – Assistant Head of Finance (IT)  
Leisure – Head of Leisure Services  
Housing – Head of Housing Services  
Property - Assistant Head of Planning Services (Building Control & Estates)  
Finance – Finance Director

##### **2. External**

#### ESSEX COUNTY COUNCIL

County Hall  
Duke Street  
Chelmsford  
Essex

01245-492211

#### ENGLISH HERITAGE

Details of all Ancient Monuments in the area can be obtained from the Planning Officer

##### **Local contact:**

Essex Regional Office  
62-74 Burleigh Street  
Cambridge  
CB1 1DG

Tel: 01223 582735

##### **National contact:**

Chief Scientist

23 Saville Row  
London  
W1X 1AB

Tel: 0207 973 3321  
Enquiries: 0207 973 3000  
Fax: 0207 973 3001

## ENGLISH NATURE

### **Local contact:**

Harbour House  
Hythe Quay  
Colchester  
Essex  
CO2 8JF

Tel: 01206 796666

### **Special advisory teams:**

Environmental Impacts Team (Taunton)  
English Nature  
Roughmoor  
Bishop's Hull  
Taunton  
Somerset  
TA1 5AA

Tel: 01823 283211

Fax: 01823 272978

Environmental Impacts & Marine Team (Peterborough)  
English Nature  
Northminster House  
Peterborough  
Cambridgeshire  
PE1 1UA

Tel: 01733 455000

Fax: 01733 568834

## ENVIRONMENT AGENCY

The Council will consult and liaise with the Environment Agency on matters relevant to the Agency's various functions. It will also seek site specific advice where necessary in accordance

with the Environment Agency's formal role.

This process will, as far as is reasonably practicable (taking into consideration the limitations on both parties), be carried out broadly in accordance with the Memorandum of Understanding.

**Area contaminated land officer, Regional contaminated land officer & Regional contaminated land co-ordinator:**

Environment Agency North East Thames Region  
Apollo Court  
Bishops Square Business Park  
St Albans Road West  
Hatfield  
Herts  
AL10 9EX

**National Part IIA process manager:**

Environment Agency South West  
Manley House  
Kestrel Way  
Exeter  
EX2 7LQ  
Tel: 01392 444 000  
Fax: 01392 444 238

**National Head Quarters**

Land Quality  
Rio House Waterside Drive  
Aztec West  
Bristol  
BS32 4UD

Tel: 01454 624 400  
Fax: 01454 624 032

**National Centre for Groundwater and Contaminated Land**

Olton Court  
10 Warwick Road  
Solihull  
B92 7HX

Tel: 0121 711 2324  
Fax: 0121 711 5925

**National Centre for Eco-toxicology and Hazardous Substances**

Evenload House

Howberry Park  
Wallingford  
OX10 8BD

Tel: 01491 828 544  
Fax: 01491 828 427

**National Centre for Risk Analysis and Options Appraisal**

Steel House  
11 Tothill Street  
London  
SW1H 9NF

Help desk: 0207 664 6897  
Fax: 0207 664 6911

**FOOD STANDARDS AGENCY**

Contaminants Division  
PO Box 31037  
Room 238  
Ergon House  
Horseferry Road  
London  
SW1P 3WG

Tel: 0207 238 5751  
Fax: 0207 238 5331

**HEALTH & SAFETY EXECUTIVE**

39 Baddow Road  
Chelmsford  
Essex  
CM2 0HL

Tel: 01245-706200

**HER MAJESTY'S CUSTOMS AND EXCISE OFFICE**

Landfill tax is the responsibility of the Birmingham business centre:  
2 Broadway  
Broad Street  
Five Ways  
Birmingham  
B15 1BG

Tel: 0121 697 4000  
Fax: 0121 643 3454

## MINISTRY OF AGRICULTURE FISHERIES AND FOOD

### **Local contact:**

Chelmsford Divisional Office  
Beeches Road  
Chelmsford  
Essex  
CM1 2RU

Tel: 01245 358383

### **National policy advisor:**

Farming & Rural Conservation Agency  
Nobel House  
17 Smith Square  
London  
SW1P 3JR

Tel: 0207 238 6452  
Fax: 0207

## STATUTORY REGENERATION BODIES

### **English Partnerships Head Quarters**

National Environmental Policy Co-ordinator  
16-18 Old Queen Street  
London  
SW1H 9HP

Tel: 0207 976 7070  
Fax: 0207 976 7740

### **English Partnerships Senior Projects Manager (Contaminated Land)**

Arpley House  
110 Birchwood Boulevard  
Birchwood  
Warrington

WA3 7QH

Tel: 01925 651144  
Fax: 01925 644657

### **The Countryside Agency Head Quarters**

John Dower House  
Crescent Place  
Cheltenham  
Gloucester  
GL50 3RA

Tel: 01242 521 381  
Fax: 01242 584 270

## **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)
  - \*Ground water
- (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 remediation 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 be dealt with by the appropriate enforcing authority. 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) such that a treatment process is needed in order to make the water wholesome, 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**:

In order to designate a site as a special site, the pollution of controlled waters from a source within/on/under the land must be confirmed as continuing to pollute (or have the potential to pollute) the controlled waters. Where there is no clear evidence that there is a continuing source of historical contamination within the land (even though contamination maybe / is present within groundwaters/ surface waters) then the site will not be considered a special site and may not even fall in to the Part IIA definition of 'Contaminated Land'.

#

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 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, also that inclusion on this list does not necessarily infer the existence of a pollutant linkage.

Abattoirs	Cement works
Adhesives manufacture	Chemical manufacture and storage
Agriculture	Chrome plating
Aircraft manufacture	Ceramics manufacture
Airports	Coal carbonisation
Animal burial	Coal merchant
Animal by-product processing	Concrete batching
Anodisers	Coppersmiths
Anti-corrosion treatment	Descaling contractors (chemical)
Asbestos products	Detergent manufacture
Asphalt works	Distilleries
Automotive engineering	Dockyards
Battery manufacture	Drum cleaning
Bearings manufacture	Dry cleaners
Blacksmiths	Dye works
Boiler makers	Dyers and finishers
Bookbinding	Electricity generation
Brass and copper tube manufacture	Electrical engineers
Brass founders	Electro platers
Brewing	Engineering works
Car manufacture	Explosives manufacture (including fireworks)
Carbon products manufacture	Farms

Fertiliser manufacture	Pesticides manufacture
Fellmongers	Petrol stations
Fibre glass works	Photographic film works
Food processing	Photographic processing
Foundries	Paper manufacture
Fuel manufacture	Plastics works
Fuel storage	Plating works
Garages and depots	Power stations
Gas mantle manufacture	Print works
Gas works	Printed circuit board manufacture
Glass works	Radioactive materials processing
Glue manufacture	Railway land
Gum and resin manufacture	Railway locomotive manufacture
Hatters	Refiners of nickel and antimony
Hide and skin processors	Resin manufacture
Ink manufacture	Rubber manufacture
Iron founder	Scrap metal dealers
Iron works	Sealing compound manufacture
Knackers yards	Sewage works
Laquer manufacture	Sewage sludge disposal areas
Laundries	Sheet metal merchants and works
Leather manufacture	Ship breakers
Metal coating	Ship builders
Metal manufacture	Shooting Grounds
Metal sprayers and finishers	Skein silk dyers
Mining	Small arms manufacture
Mirror manufacture	Smokeless fuel manufacture
Motor vehicle manufacture	Soap manufacture
Oil fuel distributors and suppliers	Solvent manufacture
Oil merchants	Solvent recovery
Oil refineries	Steel manufacture
Oil storage	Stove enamellers
Paint and varnish manufacture	Synthetic fibre manufacture
Paper works	Tank cleaning

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

## 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 remediation.

6. The Council will undertake the remediation 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 remediation.

7. In appropriate cases the Council will seek to recover costs of remediation 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 Head of Environmental Services 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. The consequences of, ‘getting it wrong’, could, in many cases, have a major impact on the District and on people’s lives. On the one hand, an entire area could be unnecessarily blighted and homes rendered worthless over night, whilst on the other, a generation of children could be left at risk from an unidentified toxic contaminant.

12. 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

Environmental science disciplines (several)

Surveyors

Engineers

Geologists

Hydrologists

Soil scientists

Chemists

13. Ultimately, the responsibility for determining what land may and may not be declared contaminated, by definition, lies with the Head of Environmental Services. 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

14. 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

15. Such a person, as well as having sufficient knowledge and experience to specify the contract, must have sufficient time to monitor it also. The Principal Environmental Health Officer has been identified for this purpose. He is very well qualified, being a member of the Chartered Institute of Environmental Health.

16. Additional training will be required to provide an adequate foundation of knowledge upon which to carry out the role. This will be arranged as training courses become available and will be funded from either the training budget or the contaminated land budget.

17. The Client officer will produce a comprehensive, unambiguous but succinct draft specification for each contract which clearly identifies the work to be carried out, its purpose, timetable and Client / Contractor responsibilities. Then s/he will produce a list of appropriate companies, taking care to seek out those most prominent and successful in the field, rather than only those who promote themselves to the Council. 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. This should then hopefully result in a short list of six or so companies who will be asked to quote / tender for the work based on a final specification.

18. A check list of information requirements is included at the end of this section.
19. Once appointed 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 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  1.3 CV and availability of key staff	If a large company, what are the interests / sympathies of those in control. Do they consider local authorities as a serious market? How many staff are available for this type of work, will they need to subcontract?  Who will actually be doing the job, what are their qualifications and experience? Practical experience is KEY. Do they really understand Part IIA? Knowledge of environmental law & local government systems an important requirement.
1.4 Details of QA systems including:  Allocation of responsibilities Project Management Technical Procedures Technical review Training Assessment of external suppliers	Where appropriate, need details of quality management systems indicating whether accredited by a third party. What technical procedures to be used. Which staff responsible, which will undertake technical review. 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	Ever done similar work or is this a new departure?
1.7 Client references	Need several telephone numbers to enable rapid verification of statements made at interview.
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 remediation 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 absolutely clear. It is essential not to have masses of reports landing on the desk of the client officer which puts the responsibility back on him / her. The responsibility for doing what has been agreed to 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. A lot depends on the quality of the original specification. Stage payments and timetables must be firm and with perhaps penalty clauses if fail to deliver on time.
2.8 Conditions of engagement	Contracts need not be long and wordy, should define responsibilities of both parties, liabilities etc succinctly.