CONTAMINATED LAND INSPECTION STRATEGEY

Prepared by the

ENVIRONMENTAL PROTECTION TEAM

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Revised August 2019

Executive Summary

- Part IIA of the Environmental Protection Act (1990) created a new statutory regime for the identification and remediation of land defined as being contaminated.

- The regulations came into force on the 1st April 2000, and local authorities were given a leading role for the implementation of the regime.

- Contaminated land is defined in the statutory guidance on the basis of significant harm and a risk assessment approach will be used for identifying contaminated land.

- When contaminated land has been determined as being contaminated, the Council will need to apportion liability for remediation of that land to the appropriate person/s.

- The statutory guidance requires that local authorities should take a strategic approach to the identification of contaminated land.

- The Council has a number of key aims and objectives in order to meet the requirements of the new regime.

- In order to meet these aims/objectives aims a number of procedures have been formulated, which include arrangements for responding to complaints and site inspections.

- A risk model will allow potentially contaminated sites to be prioritised. The prioritisation process will allow the Council to direct its inspection programme and resources to sites that may represent a threat to human health and the environment.

- Implementing Part IIA involves significant liaison with a range of individuals and organisations. In order to ensure public confidence in the process it is essential that the Council provides an effective communication framework.

- The inspection programme could accrue considerable information. This will require an efficient data management system that will be audited in accordance with quality assurance procedures.

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1. Introduction

Regulations came into force on the 1st April 2000 which required the Council, the London Borough of Lewisham (LBL) to inspect land in its district for contamination using a strategic approach and to set out this approach in a written strategy document.

The contaminated land regime supports sustainable development by reducing the damage from past activities and by permitting contaminated land to be kept in or returned to beneficial use wherever practicable. This is a 'suitable for use approach' to the control and treatment of existing contamination, requiring regulatory action only where it is necessary to deal with unacceptable risks to health or the environment.

This strategy sets out how the Council will comply with the requirements of the legislation, by using a risk assessment suitable for use approach for identifying and prioritising contaminated land on a methodical basis.

1.1 Regulatory Responsibilities

Section 57 of the Environment Act 1995 inserted a new section (Part IIA) into the Environmental Protection Act 1990.

In April 2000, Local Authorities were provided with a new regulatory regime for the identification and clean-up of contaminated land.

Therefore, Local Authorities have been given a leading role for the implementation of this regime and have responsibility for the identification of contaminated land. They will have to establish the appropriate person(s) to take responsibility for any remediation and undertake enforcement action where this proves to be necessary.

Whilst the Council has the responsibility to identify contaminated land within the Borough, the Environment Agency has the responsibility for the enforcement of the legislation in relation to 'special sites' and the pollution of controlled waters in certain instances, as discussed in the following section.

1.1.1 Regulatory roles of the Council and the Environment Agency

Under the section 78B (1) of the act, each Local Authority has the duty to:-

> *"cause its area to be inspected from time to time, for the purpose of identifying Contaminated Land" and of enabling the authority to decide whether any such land is land which is required to be a special site.*

Section 78B (2) states that authorities must act in accordance with guidance issued by the Secretary of State, including the production of a formal contaminated land strategy document. This current revision has been produced following various policy and guidance updates.

1.1.2 National Planning Policy Framework

As of March 2012, the National Planning Policy Framework (NPPF) replaced the former Planning Policy Guidance (PPG) and Planning Policy Statements (PPS). This included the withdrawal of PPS23: Planning and Pollution Control, which gave guidance in relation to development on contaminated land. It states that as a minimum land should not be capable of being designated as contaminated land under Part 2A after remediation via the planning process.

1.1.3 Statutory role of the Environment Agency

The Environment Agency has responsibility to act as the enforcing authority for 'special sites' (as defined in Regulations 2 & 3 of the Contaminated Land (England) Regulations 2000). These are sites that are designated because either pollution of controlled waters is being or is likely to be caused, or due to the type of contaminant present and contaminative use of the land.

Specifically, the Environment Agency will undertake the following duties:-

a. Assist Local Authorities in identifying contaminated land, particularly in cases where water pollution is involved.

b. Provide site-specific guidance to local authorities on contaminated land.

c. Act as the "enforcing authority" for any land designated as a "Special Site".

d. Undertake research and publish periodic reports on contaminated land.

It is therefore crucial that the Council and the Environment Agency work closely together, and establish an early dialogue regarding potential Contaminated Land sites, particularly where such sites may subsequently become designated Special Sites.

In addition, in certain instances the Council may also request the Agency to undertake investigative work on its behalf in the case of potential Special Sites.

1.2 The Definition of Contaminated Land

In Part IIA of the Environmental Protection Act 1990, Section 78A (2) Contaminated land is defined as: -

> Any land which appears to the Local Authority in whose area it is situated to be in such a condition, by reason of substances in, on or; under the land that:–
>
> a) significant harm is being caused or there is a significant possibility of such harm being caused; or
>
> b) pollution of controlled waters is being, or is likely to be caused.
>
> c) harm so far as attributable to radioactivity is been caused: and there is significant possibility of harm so far as attributable to radioactivity being caused.

Where harm is attributable to radioactivity, the definition of contaminated land, as modified by the Radioactive Contaminated Land (Enabling Powers and Modification of Enactments) (England) (Amendment) Regulations 2010 is:

> "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: [5 –
>
> a) harm is being caused; or
>
> a) there is a significant possibility of such harm being caused."

1.3 Pollutant Linkages and the Risk Assessment Approach

Before land can be defined as **contaminated**, the risk assessment process must determine that **significant harm** is being caused, or that there is **significant possibility of harm being caused** by the existence of **pollutant linkage/s**. Before the existence of a **significant pollutant linkage** can be determined, **three elements** have to be identified.

These are –

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

2. A pathway - One or more routes or means by which the contaminant is causing significant harm or significant possibility of harm to a receptor.

3. A receptor (the target) - This can be either a living organism, a group of living organisms, an ecological system or some piece of property which is likely to be harmed by the contaminant, or controlled waters which are being or are likely to be polluted by the contaminant.

Please refer to Appendix C for a list of the potentially sensitive receptors.

The risk assessment process will identify how each of these three elements is linked to the others. An identified pathway should be capable of exposing a specified receptor to a specified contaminant and that particular contaminant should be capable of harming or, in the case of controlled waters, polluting that particular receptor.

The risk management process should incorporate the following criteria:-

- Hazard Identification - including site, substance and hazard identification

- Hazard Assessment - the extent and nature of the hazard, what type of material and how much could be released and reach a receptor

- Risk Estimation - an estimation of exposure levels, analysis of toxicological/epidemiological data and assessment of damage probabilities.

- Risk Evaluation - including judgement of the significance of the assessed risk.

- Risk Control - consideration and implementation of mitigation options, regulatory/non-regulatory controls, environmental monitoring, sample analysis, audit and reviews

It should be noted that the presence of contaminants in, on or under the land will not automatically determine the land in question as being contaminated, as the risk assessment process would need to identify the existence of a significant pollutant linkage first.

1.4 Strategy Development

The statutory guidance requires that all local authorities take a strategic approach to the identification of contaminated land, and that this should:-

- **be rational, ordered and efficient**
- **be proportionate to the seriousness of any actual or potential risk**
- **seek to ensure that the most pressing and serious problems are located first**
- **ensure that resources are concentrated on investigating areas where the authority is most likely to identify contaminated land**
- **ensure that the local authority efficiently identifies**

This strategy will endeavour to meet these requirements by ensuring that resources are effectively applied to the investigation of land that represents an actual or potential risk to human health or the environment.

The Environmental Protection Team, and specifically the Contaminated Land project leader, will have responsibility for the application of these regulatory functions.

2. Characteristics of the London Borough of Lewisham.

2.1 Geographical Location

Located in the south-east sector of inner London with the River Thames in the north, Bromley in the south, and between Southwark to the west and Greenwich to the east, the Borough of Lewisham is one of 33 local authorities which make up the Greater London Area (**Map 1**).

2.2 Size of Area & Population

The Council's district covers an area of 13.4 square miles (34.706 km^2), and represents a diverse multi-racial inner city community of over 275,000 people (2011 Census)

2.3 Brief Description and History of the Borough

Much of the Borough was developed as part of the great suburban expansion of London between 1850 and 1930. At the beginning of the nineteenth century Deptford was the largest settlement, its development being linked to its proximity to the Thames and the Deptford Creek. It has ancient links with both the Royal Navy and merchant shipping. This long history is illustrated by the fact that the sites of many potentially contaminative industries were located in this part of the Borough.

The remainder of the area at that time was primarily agricultural, with the largest settlement being Lewisham with a population of 2000 people. A similar size population was spread between villages and hamlets which included Brockley, Sydenham, Lee and Blackheath. The present day structure of the Borough is derived from this ancient pattern of settlements, the local centres being the sites of the old villages.

The beginning of the nineteenth century saw a rapid urbanisation of the Borough spurred on by the growth of the railways.

By 1914, most of the Borough was built-up, but after the First World War two large areas of open land were acquired and developed as the Bellingham and Downham Estates. At the same time private developers built on the remaining areas of land such as Grove Park.

After the Second World War, the war-damaged neighbourhoods were reconstructed and large areas of property were redeveloped.

The Borough today is primarily residential, presenting great contrasts ranging from low density suburbs to high density neighbourhoods. Main roads and railways criss-cross the Borough due to its geographical position on the ancient routes between London and the Kent and Sussex coast.

Map 1

The Greater London Administrative Areas

The manufacturing base of the Borough has dwindled as businesses have relocated or closed and employment patterns have shifted towards the service sector. Through these new employment patterns and the process of regeneration, the majority of former industrial and commercial sites are now being rapidly redeveloped for residential or live/work occupation.

2.4 Nature Conservation & Protection

The conservation and enhancement of Lewisham's natural habitat is of crucial importance to the Borough.

Within the district over 300 hectares of land are designated as Sites of Nature Conservation Importance (SNCI). The locations of these sites are indicated on **Map 2** overleaf.

These are habitats of local significance that make a useful contribution to nature conservation and provide the opportunity for the public to learn about and enjoy wildlife.

In addition, English Nature has been consulted over the declaration of three sites within the Borough as statutory Local Nature Reserves (LNRs) (declared under section 21 of the National Parks and Access to the Countryside Act 1949). These sites are -

Sue Godfrey Nature Park
Dacres Wood Nature Reserve
Downham Woodland Walk

In Section **4.7** the site investigation procedures for potentially contaminated sites are detailed. However, it should be noted that it is important that the arrangements for carrying out detailed inspection of sites should include a thorough survey and evaluation of any nature conservation implications at the earliest stages of investigation.

Of particular relevance within Lewisham's district is the possible occurrence of protected species on areas of contaminated land. The evaluation of a site's nature conservation interest should also be a consideration in determining appropriate remediation, if any remediation is required as a consequence of the site investigation process.

2.5 Allotments & Food Manufacturing Sites

Given the obvious potential of harm to receptors from the direct ingestion of contaminants, the Council will investigate all sites where it is considered that potential pollutant linkages may exist.

The number and approximate location of allotment sites within the district are illustrated on **Map 3** overleaf. Where considered necessary specific site information will be added to the GIS system in order to aid the site investigation process.

2.6 Historic Sites & the Historic Environment

The protection of historic sites and the historic environment is a core aim of the strategy.

Whilst the borough does not have any Scheduled Ancient Monuments (SAMs) it does have 21 areas of Archaeological Priority (as listed in Schedule 3 of the Lewisham Unitary Development Plan 2000) within its district.

If significant contamination is identified on or in close proximity to any of these sites, it will be essential to initiate full discussion with English Heritage's Greater London Archaeology Advisory Service (GLAAS) and the Council's Conservation Officer at an early stage in order to agree an appropriate remedial strategy for the site.

2.7 Known Information on Contamination within the District

Considerable information can be derived as a result of the planning development control process.

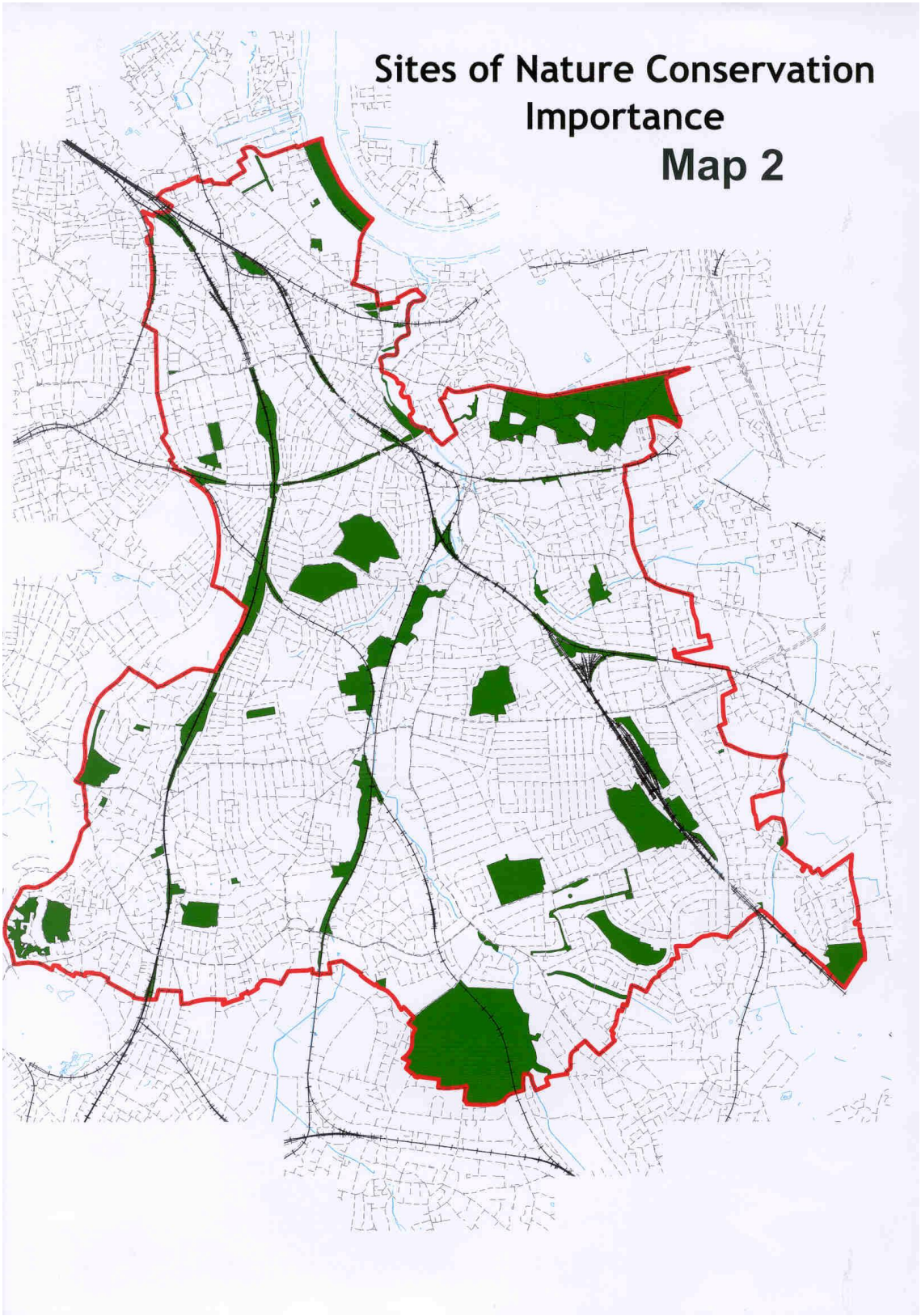
Where land has been considered to have a history indicating potential contamination, planning conditions have been applied requiring the developer to undertake site investigation of that land and remediation where necessary.

This process can generate considerable valuable information, not only in terms of specific contamination data, but also on local geology, hydrology and making available historical maps.

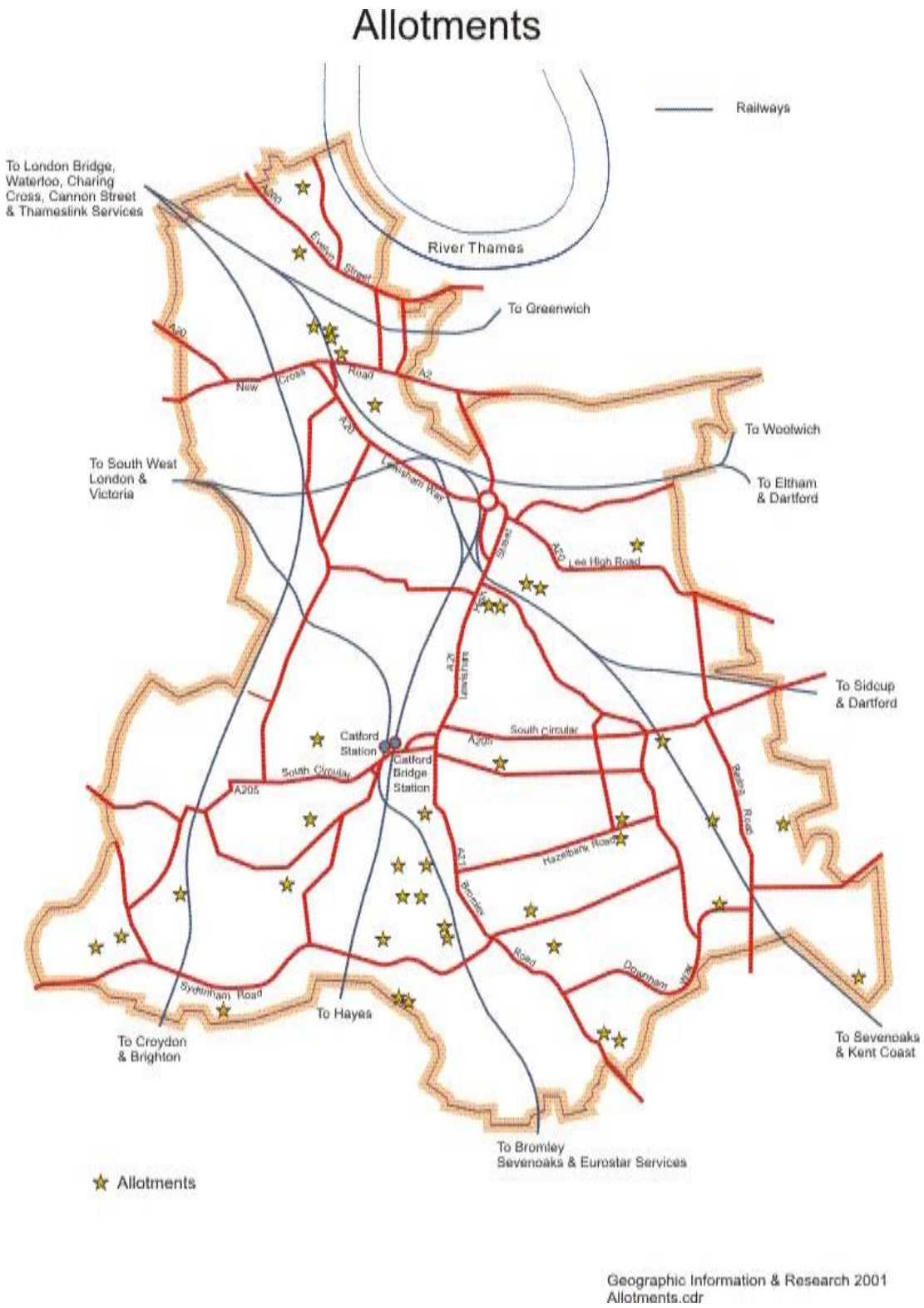
Such information from development sites could be integrated into the GIS system representing a significant resource which aids the assessment of potential contaminated sites within the district.

Additional information on contamination within the district was also compiled when local authorities anticipated that they would be required to produce a register of contaminated land under section 143 of the Environmental Protection Act 1990 (EPA), this has now been superseded by the insertion of Part IIA by the Environment Act 1995.

Map 2



Map 3


Allotments
Railways
To London Bridge, Waterloo, Charing Cross, Cannon Street & Thameslink Services
River Thames
To Greenwich
To Woolwich
To South West London & Victoria
To Eltham & Dartford
To Sidcup & Dartford
Catford Station
Catford Bridge Station
South Circular
A205
A20
A2
A21
A25
Lee High Road
Hazelbank Road
Sydenham Road
To Croydon & Brighton
To Hayes
To Bromley Sevenoaks & Eurostar Services
To Sevenoaks & Kent Coast
Allotments
Geographic Information & Research 2001
Allotments.cdr

2.8 Planning Controls

In relation to the development process, Part IIA would not be used as the primary control mechanism.

As previously stated in section (1.1.2) as of March 2012, the National Planning Policy Framework (NPPF) replaced the former Planning Policy Guidance (PPG) and Planning Policy Statements (PPS). This included the withdrawal of PPS23: Planning and Pollution Control, (which gave guidance in relation to development on contaminated land). **It states that as a minimum land should not be capable of being designated as contaminated land under Part 2A after remediation via the planning process.**

This system should ensure that appropriate site investigation and remediation conditions are applied to any applications for development where potential land contamination is a consideration.

Whilst Part IIA will not represent a primary control mechanism in the development process, it will, however, enhance the current system through the development of new procedures that ensure that effective communication and exchange of information occurs between the relevant Council departments.

Building Control

All applications for new buildings and those subject to material change of use are assessed in terms of contaminated land risk. Where this is identified Building Control will follow national technical guidance (Approved Document C: Site Preparation and resilience to contaminants) to ensure that appropriate remedial measures for biological, chemical and physical treatment processes are incorporated within the design.

2.9 Current and Past Industrial History

As previously stated, historically the majority of industrial processes were located in the north of the district, in the Deptford and New Cross areas. These included a range of activities such as timber yards, engineering, iron/steel manufacture, leather, oil and tar, manure works etc. In addition large areas of land in the district were dominated by railway use.

Brickwork sites and related extractive industries such as clay and gravel pits were found distributed throughout the rest of the Borough.

Significant numbers of 'cottage industries' may have also existed. These industries often used contaminating materials in their process such as lead, mercury and acids but, in the course of time, these sites were redeveloped without any consideration of contamination issues.

Today much of the manufacturing industry has declined, making way for the service type industries which now predominate. The Government is

committed as part of its Urban Renaissance agenda to maximising the re-use of previously developed land for housing. In the process of regeneration, former industrial sites are being redeveloped for residential or live/work use. However, it is still important that the Council, also promotes employment areas which will enable a supply of sites and premises for employment use for the present and the future.

2.10 Groundwater Vulnerability & Hydrogeological Characteristics

The following information has been incorporated into the Geographical Information System (GIS) system, providing a comprehensive hydrogeological view of the district.

- **Source Protection Zones**
- **Source Protection Sources**
- **Groundwater Vulnerability**
- **Surface Water**
- **Water Abstractions**
- **Water Wells**

This resource will prove invaluable for the implementation of the strategy inspection programme, where suspected contaminated sites/ locations can be evaluated for their potential impacts on controlled waters.

With reference to **Map 4**, it can be seen that in relation to groundwater vulnerability that much of the borough is classified as a Minor Aquifer due to the presence of superficial deposits of sand and gravel.

However, in the north of the borough areas classified as Major Aquifers (due to high permeability) are also identified.

The Environment Agency has designated zones around public abstractions and other sensitive receptors.

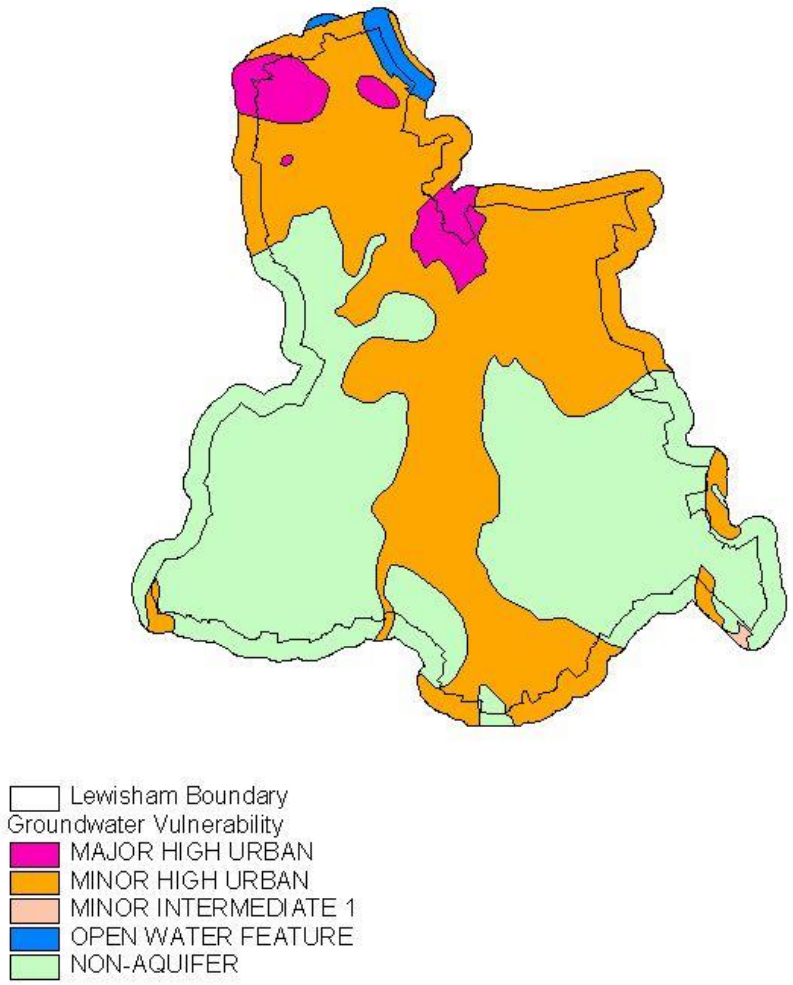
The following zones are based on the estimated time it would take a pollutant that enters an aquifer to reach a public water abstraction point.

Zone I	**(50 days for the pollutant to reach an abstraction/ discharge point)**
Zone II	**(400 days for the pollutant to reach an abstraction/ discharge point)**
Zone III	**(The total catchment area)**

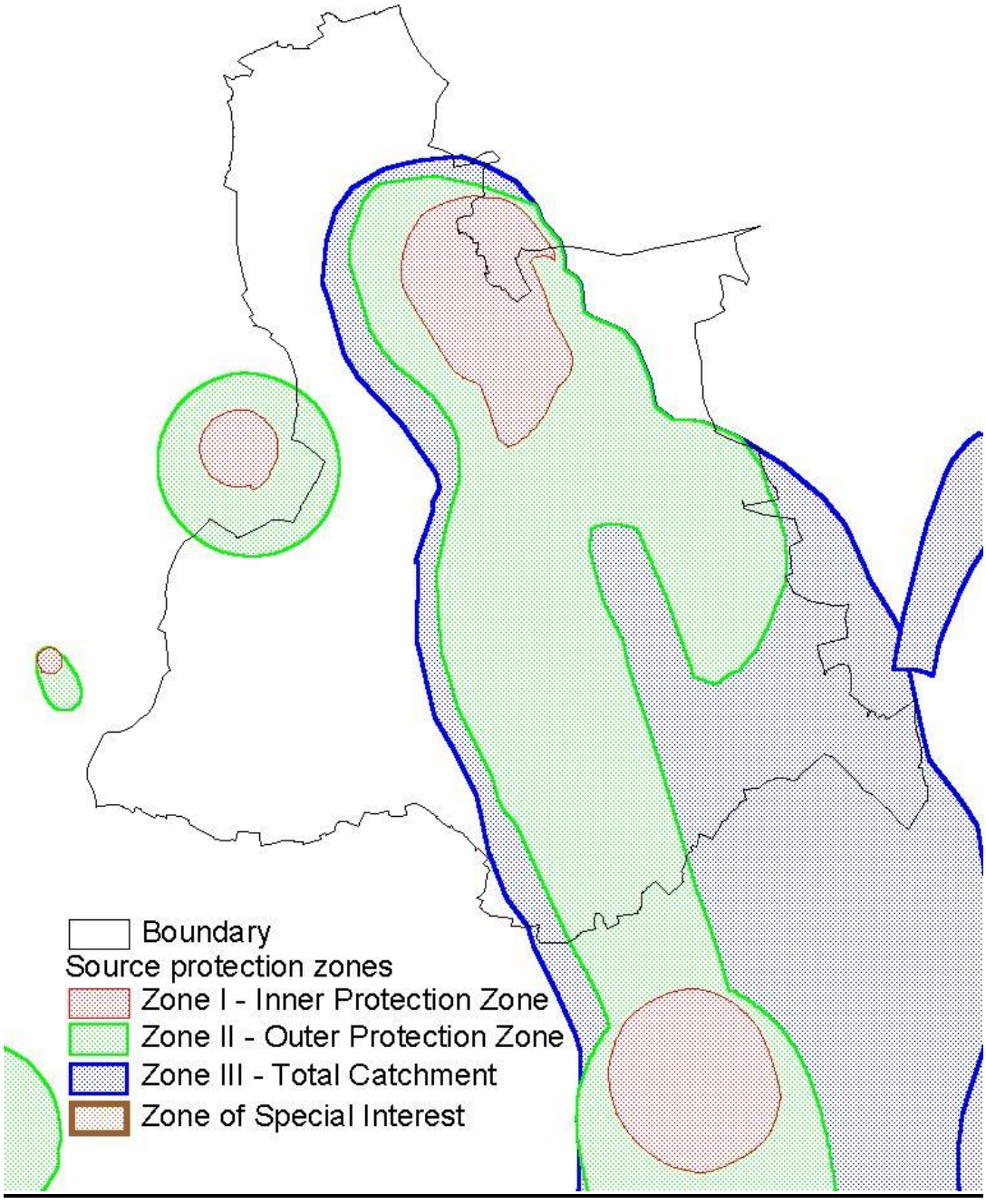
With reference to **Map 5**, it can be seen that a sensitive **Zone I** category receptor exists within the district.

Priority will therefore be attached to the investigation of potentially contaminated sites overlying this area within the district, in order to determine any possible contamination impacts on the designated zone.

Hydrogeological Characteristics Map 4



Source Protection Zones Map 5



2.11 Geological Characteristics

An understanding of the solid and superficial geology is essential in order to determine whether potentially contaminated sites are likely to have an impact on controlled waters or adjacent sites.

The interaction between contaminants and the surrounding geology is a specialised and complex field of science and is beyond the scope of this document. However, such criteria will be a necessary consideration in the risk assessment process that is applied to a site evaluation.

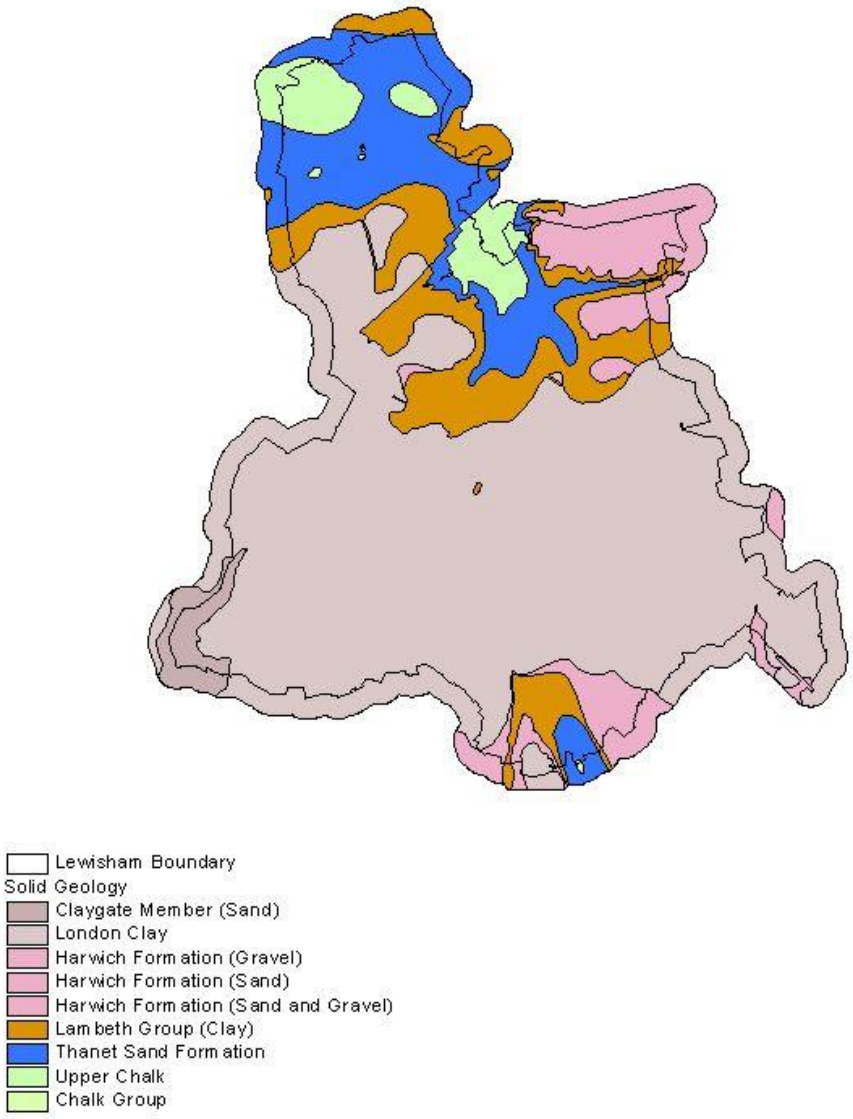
Therefore, although contamination may have been identified underlying a site, the risk assessment process may consider that the geological characteristics of that site are likely to prevent any migration to receptors. As an example, sites which are underlain by low permeability clays may be considered less likely to represent a risk to groundwater as compared to those sites which are underlain by more permeable strata such as gravel, sandstones and chalk.

However, although the risk assessment process may conclude that a site is fit for its current use, it is clearly important that inspection decisions are regularly reviewed in case a new land use activity (such as the installation of fence posts, site drainage works,) has created a new route or migration pathway to a receptor.

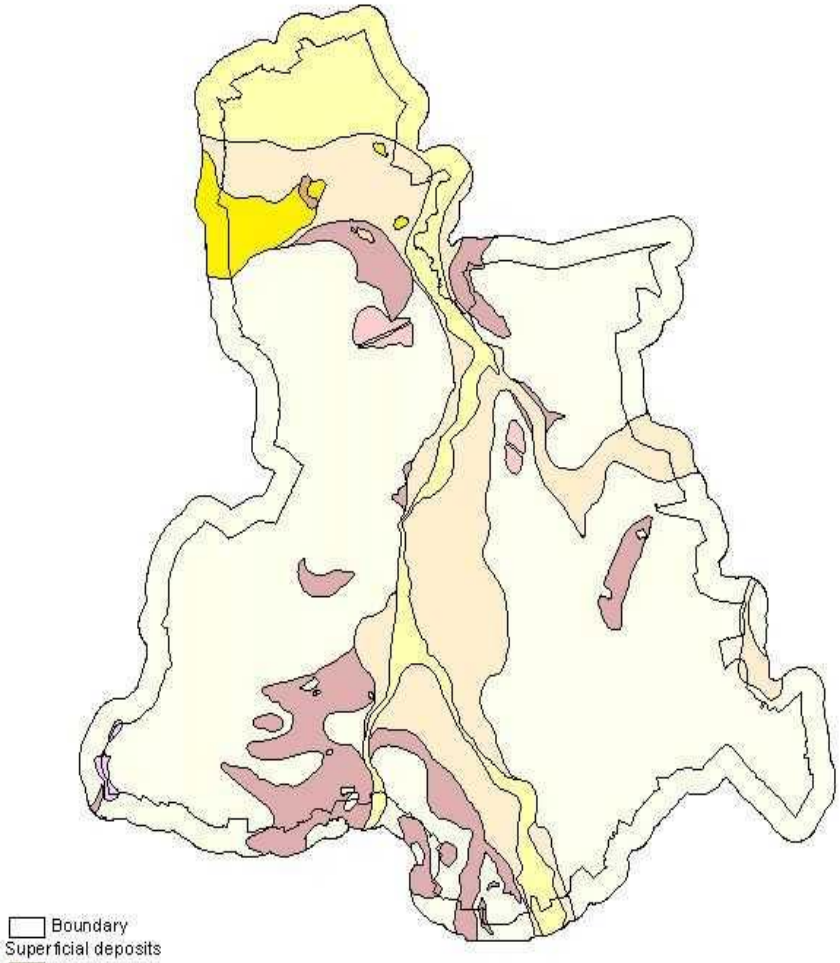
The geology of the London Borough of Lewisham is illustrated in **Map 6 & Map 7**. Map 6 illustrates the solid geology and map 7 the superficial geology. These maps were printed directly from the ArcView (GIS) mapping system.

This system will allow data to be displayed as graphical overlays and therefore the geology underlying a suspected site can be immediately assessed.

Solid Geology Map 6



Superficial Deposits Map 7



Boundary
Superficial deposits
Alluvium
Boyn Hill Gravel Formation (Gravel)
Boyn Hill Gravel Formation (Sand and Gravel)
Head (Clay)
Kempton Park Gravel Formation (Gravel)
Kempton Park Gravel Formation (Sand and Gravel)
Langley Silt Formation
Peat
Taplow Gravel Formation (Sand and Gravel)
Sand and Gravel of unknown age
No drift deposits

3. AIMS AND OBJECTIVES OF THE STRATEGY

3.1 Overall Aims

The aim of this strategy is to ensure the protection of human health and the environment. This will be achieved through the implementation of the legislation and by the effective application of resources.

3.2 Council Priorities

As previously described (section 2.3) the majority of land within the district is highly urbanised with residential occupation and therefore the identification of significant harm to human health by the effective application of this regime should be a key aim of the Council's strategy.

In the context of risk assessment, this approach will consider both the risk posed to a receptor from direct contact with a contaminant or through inhalation and also the implications for potential exposure to receptors from contamination via ingestion. Sources will include home grown produce from allotments or gardens, and commercial food production.

In the north of the Borough bordering the Thames much of the land has a long industrial heritage with the potential for many historical activities which could have implications for soil and groundwater contamination.

A significant proportion of this land is being remediated through the planning development control process. In terms of the protection of the environment, it is also a key priority of the strategy that ecosystems and habitats within the authority's conservation areas will be assessed and protected. In this context Deptford Creek, which borders the Thames, is an example of a Site of Nature Conservation Importance (SNCI) within the Borough.

Having identified above the broad aims and objectives of the authority, the following section will now apply specific objectives.

3.3 Objectives

The specific objectives of London Borough of Lewisham (LBL's) inspection strategy are designed to reflect local circumstances and to meet the requirements of the statutory guidance, and are as follows:-

Objective 1
Ongoing/renewed annually

The statutory guidance requires that the local authority takes a strategic approach to the identification of its land in a rational, ordered and efficient way.

Clearly as it is not possible for an authority to immediately assess all land in the Borough for contamination, a mechanism must be employed to meet the requirements of the guidance and identify and prioritise land which is determined as contaminated based on a risk assessment approach.

The way in which sites will be prioritised for inspection in the Borough represents the focus of the strategy. Therefore, the mechanism and methodology by which this will be achieved necessitates discussion in a specific section (please refer to Section 3.4 Risk Prioritisation Method)

However, the following summary in this objective will provide an overview of the procedure.

Based on the evaluation of comprehensive data sets, which have been formulated and applied to the GIS system, it will be possible to identify both potential sources of contamination and receptors within the district. Using this information it will then be possible to quickly and effectively highlight the locations of potentially contaminated sites within the Borough.

This will then allow the determination of potential pollutant linkages and allow further evaluation of the data based on risk assessment and site prioritisation models. This information will then be applied to establish the order of the inspections required and the allocation of resources.

Although land in local authority ownership will be discussed in a following objective it should be emphasised that the same procedural objectives will be applied to land where the authority is considered to be the “appropriate person”

Objective 2
Subject to be ongoing/renewed annually/sites/land requiring immediate action

Whilst the above objective describes how sites will be identified and prioritised for investigation over the duration of the project:: should any land present immediate evidence of significant harm to any sensitive receptors, resolving that hazard with all available resources, would take precedence above all other strategy objectives.

Objective 3
Ongoing/ to be renewed annually /council owned land

The Council owns many sites within the district including schools, public open spaces, residential properties and allotments where sensitive receptors will be present.

Some of these sites could be potentially contaminated due to a historical use.

Consequently as the Council considers it imperative to ensure public confidence and transparency in its actions, it will demonstrate that it can "keep its own house in order" by applying exactly the same methods of assessment and evaluation to its own land, as it would do to any other land in its district.

If contamination is thought to exist, the risk assessment process will then be applied in order to determine the existence of any pollution linkages.

Should any such linkages be established in relation to Council owned land, it will then be necessary to establish that significant harm or significant possibility of such harm is being caused in relation to that land, within the definition set out in the legislation.

If the land was then considered to be contaminated as a consequence of this identification process, adequate remedial methods would be considered and implemented as a matter of urgency.

Objective 4
Ongoing/site/protection of controlled waters

In section 3.2 Council Priorities, it was mentioned that some land uses bordering the Thames may have the potential for a contamination impact on controlled waters. However, a designated Zone I source protection area around an aquifer also exists within that part of the Borough (please refer to Section 2.9)

Therefore, all available data on source protection zones, groundwater vulnerability maps, sites of major/minor aquifers, groundwater/borehole data from site development reports has been integrated into the GIS system. This will ensure that all potential contaminative source locations are evaluated for pollutant linkages.

Should a linkage involving controlled waters be determined by the Council, the Environment Agency will immediately beconsulted. All relevant data will be supplied to them and detailed consultation will be undertaken concerning risk assessment and remedial measures.

In order to satisfy its statutory duties under Part IIA, the Environment Agency will notify the Council if it identifies any significant pollutant linkages.

3.4 Risk Prioritisation Model

As described in Section 1.4 Strategy Development,the statutory guidance requires that the strategy is rational and efficient and that the local authority ensures that resources are concentrated on investigating areas where it is most likely to identify contaminated land.

In order to meet these requirements the Council will be utilising newly acquired GeoEnvirons' Site Prioritisation software and ArcMap, a Geographical Information System (GIS), for managing contaminated land information and prioritising potential Part 2A sites.

As new data sets become available, LBL will update its software to help improve the identification of contaminated land within the borough.

The methodology uses the pollutant linkage concept whereby a source, pathway and receptor must exist and that the source or contaminant can have the potential to cause significant harm to a receptor.

It uses the potentially sensitive receptors described in the legislation and in Appendix C. The likely contaminants arising from previous land uses are taken from the DoE (1995b) publication, which sets out the "Potential Contaminants for the Assessment of Land". These are augmented where references from the scientific or technical literature can provide supplementary information and will be listed and referenced.

The system allows a scoring of the different sources, pathways and receptors for a site which can then be mapped, and establish where the high priority sites occur within the district.

This scoring system allows the Council to prioritise and target its inspection programme to sites which may be causing harm to human health and other receptors such as controlled waters.

However, it should be recognised that such models are not definitive and may have limitations and therefore contaminated land will not be determined purely as a consequence of a high score or risk ranking.

The model will consequently be utilised as a tool to focus attention on potentially contaminated sites and represent the basis for further investigation by the Council.

If the investigation process then concludes that the site was not contaminated, the risk model score for that site would be amended accordingly and fully documented for future reference (see Section 6.1 Information Management).

A core aim of the inspection programme is the investigation of sites which may be causing significant harm to human health. The prioritisation process will seek to ensure that resources are concentrated on the investigation of the high scoring sites first.

Whilst the Council would wish to investigate all sites irrespective of their relative scoring, realistically the availability of financial and staff resources will place a constraint on how lower scoring sites are investigated. However, this position will be a matter of review, subject to the actual number of high risk sites determined and resources that are available as the inspection programme progresses.

4. Procedures

By taking into account the statutory guidance and objectives set out in this Strategy, the Council will manage contaminated land issues in a consistent and organised manner.

4.1 Internal Management Arrangements for Inspection and Identification

The implementation of Part IIA of the Environmental Protection Act (EPA) is the responsibility of the Environmental Protection Team, which is part of the Business Regulatory Services.

Within the Environmental Protection team there is a designated lead officer who will deal with all Contaminated Land issues. This officer reports to the Environmental Health Services Group Manager and the Head of Public Protection and Safety.

The lead officer will implement the Strategy and be responsible for serving remediation notices, subject to consultation with the Environmental Health Services Manager and the Council's Head of Law.

The elected members will be immediately advised of any plans to designate any Council owned land, or land where the Council is considered to be the “appropriate person” and may be liable for remediation costs.

4.2 Information Collection

The success of the site identification/investigation process is totally dependent on the efficient collection and collation of information from many sources.

Where possible the Council will bring together all relevant information in digitised form. This will then be incorporated into the ArcView Geographical Information System (GIS). The aim of this software mapping package is to provide both a visual tool that indicates defined areas or sites of potentially contaminated land within the district. Linkage with a specialised database provides additional detailed site specific information.

A GIS system can be simplistically visualised as being a framework with the ability to overlay sheets or layers of information on a map of the Borough. This allows for the comparative analysis of multiple sources of information at any given geographical location. Where an historic use of a site has identified potential contamination, this system can compare it against its current use or proposed future use in a clear and effective way.

This system will represent the primary source of information utilised by the Council to determine the location of potentially contaminating sites within the Borough.

Our research to date has highlighted a number of potentially contaminated sites that will be compared against current land use and investigated further, subject to prioritisation on the basis of the pollutant linkage concept, described in Section 3.4.

In order to further aid the site identification process the following additional information has also been incorporated into the GIS system –

Resource	**Source**
Location of Controlled Waters: Surface Water & Aquifers	Environment Agency/ BGS
Borehole locations/ Abstraction points /Groundwater Source Protection Zones	Environment Agency/ BGS
Groundwater vulnerability maps	Environment Agency/BGSA
Drift Geology	BGS
Solid Geology & Borehole Data	BGS
Sites of Nature Conservation Importance (SNCI)	Lewisham Council
Closed Landfill sites	Environment Agency
Allotment sites within the Borough	Lewisham Council
Petrol filling stations/garages	Lewisham Council
EPA Parts A and B Processes	Lewisham Council
Site development reports/data	Lewisham Council

In addition to the above information which has been directly integrated into the GIS system, other valuable sources of information will also be reviewed in order to identify potential sources of contamination and receptors.

These will include the following:-

- **Kelly's Trade Directories**
- **Environmental Health Records**
- **Geological Maps**
- **Environment Agency Maps & Records**
- **Historical Maps**
- **Historical Information**
- **Ordnance Survey Maps**
- **Local knowledge**

4.3 Local Authority Land

As discussed in Section 3.3, Objective 4, the Council will as a part of its inspection programme, undertake a review of its land to determine whether pollutant linkages exist.

4.4 Orphan Sites

Section D103 of the Circular 02/2000 Part IIA Contaminated Land, Chapter D, D.103, advises that in circumstances where Class A or B persons cannot be found or are exempted in the provisions, the Council may determine the land as being an orphan site.

In these instances the Council may be required to bear the costs of carrying out site investigations and appropriate remediation as set out in Section D.104.

Whilst Central government may provide some funding, this may not be sufficient to cover all the costs. The Council may, therefore, have no other option than to recoup such costs by placing a charge on the land, or by any other appropriate measures as may be stipulated in accordance with government guidance.

4.5 Complaints and Voluntary Information

On occasion, members of the public, business or community groups may make a complaint to the Council regarding contaminated land. In addition, interested or concerned residents may also voluntarily supply information relating to land contamination that does not directly affect themselves or their property.

Offers of information or complaints may have implications on the approach to inspection. Where complaints are received by the Council the following procedures will be applied:-

4.5.1 Complaints

The procedures applied to dealing with any complaint in relation to contaminated land are the same as those currently applied when investigating any statutory nuisance complaint.

These procedures are as follows:–

All complaint details will be logged and recorded.

The complainant/s will be contacted by an officer regarding their complaint.

The complainant/s will be kept informed of progress in the investigation of their complaint.

Whilst it would be the aim of the Council to resolve all complaints quickly and effectively, legislation does present the following potential obstacles which could hinder a speedy result.

(i) Detailed investigations may be necessary to prove a viable pollutant linkage before any formal determination as to whether or not land contamination is possible.

(ii) Prior consultation with interested parties is essential before determination as contaminated land.

(iii) A minimum period of three months must elapse between determination of the land as being contaminated and service of a remediation notice.

(iv) The requirement for the enforcing authority to make every effort to identify the original polluter of the land (or "Class A" person) as defined in the legislation.

In extreme cases the regulations allow conditions (ii) and (iii) to be waived, but not conditions (i) and (iv).

4.5.2 Confidentiality

The identity of a complainant would normally remain confidential. Their details however, could be made public in a court of law where for example a remediation notice is being appealed.

4.5.3 Anonymous Information

In general the Council would not undertake any investigations into land contamination on the basis of anonymously supplied information. However, this policy would not preclude investigating a complaint on this basis in exceptional circumstances.

4.6 Risk Assessment & Exposure Assessment Models

For the risk assessment criteria required for the determination of contaminated land please refer to Section 1.3 Pollution Linkages and the Risk Assessment Approach.

In general all information on substances in, on or under the ground that may cause significant harm or pollution will be evaluated as part of the risk assessment procedure against current governmental guidelines.

Historically, the ICRCL (Interdepartmental Committee on Redevelopment of Contaminated Land, 59/83 2nd Edition July 1987) guidelines, and others including Dutch, Greater London Council standards have been commonly used by many Environmental Health departments as a mechanism to assess site soil contamination.

4.7 Part 2A New Statutory Guidance

In April 2012, the Department for Environment, Food and Rural Affairs (Defra), published revised Statutory Guidance, which replaced Annex 3 of Defra Circular 01/2006, with the aim of simplifying the contaminated land regime and making it easier for regulators to decide whether a site is 'contaminated land' or not. This was done by the introduction of a four category scoring system which designates sites according to whether they pose a 'significant possibility of significant harm to human health.'(SPOSHH)

Category 1: Sites where the Local Authority, supported by robust science-based evidence, decide there is an unacceptably high probability of significant harm occurring if no action is taken to prevent it.

Category 2: Sites where the Local Authority considers there is a strong case that the risks are of sufficient concern in respect to significant possibility of significant harm. This may include land where there is little to no evidence that similar sites have caused harm, but on the basis of available information there is a strong case for taking action under Part 2A on a precautionary basis.

Category 3: Sites where the strong case required for Category 2 does not exist, therefore the legal test for significant possibility of significant harm is not met. This includes land where the risk is not low but the Local Authority considers regulatory intervention is unnecessary due to other parties, such as the owner or occupier of the land, not being prevented from taking action to reduce the risks outside of the Part 2A regime.

Category 4: Sites where there is little or no risk that the land poses significant possibility of significant harm. This may include land where no relevant contaminant linkage has been established, only normal levels of contaminants exist in the soil, or contaminant concentrations do not exceed relevant Generic Assessment Criteria (GAC).

The revised guidance does not apply to sites affected by radioactive contamination. This is now covered by a separate guidance published by the Department of Energy and Climate Change (DECC) in April 2012.

Category 4 Screening Levels (C4SLs)

Defra Research Project SP1010 was designed to produce generic screening criteria which would allow 'low risk' sites (those falling within Category 4) to be dismissed from further risk assessment. To date these screening levels are only available for six substances, but with values produced for a wider range of site uses:

- Residential with home-grown produce
- Residential without home-grown produce
- Allotments
- Commercial
- Public open space near residential
- Public parks

In making its assessments the Council will utilise the best risk assessment approach available. This may be based on a combination of guidelines and all available information and professional advice from other organisations such as the Environment Agency or local Health Authority.

4.8 Site Investigation Procedures for Potentially Contaminated Sites

As previously discussed the Council will investigate sites on the basis of a prioritisation approach to inspection.

The whole purpose of this process is to highlight attention and focus resources on those sites that are considered to represent the greatest risk to receptors and investigate these first.

Therefore, when a potentially contaminated site has been identified, the Council will incorporate three main stages as part of its strategy to carry out detailed site investigations.

4.8.1 (Stage 1) Desktop Evaluation

The aim of Stage 1 is to produce a detailed contamination profile of the site by compiling as much information as possible from all available sources.

If the evaluation of this information indicates the existence of potential pollutant linkages, a visual site inspection will then be undertaken.

4.8.2 (Stage 2) Visual Site Inspection

Stage 2 aims to validate and add to the findings of the Stage 1 process.

The site inspection should provide additional site specific information relating to possible sources/ visual evidence of contamination, pathways and types and proximity of any defined receptors including humans, controlled waters, and protected ecosystems.

Given that effective site investigation requires considerable expertise and a thorough awareness of the Health & Safety implications, it is envisaged that suitably qualified consultants or professionals will be contracted by the Council to carry out the necessary inspections.

On this basis it would be anticipated that the 'contractors' report would significantly assist the site determination process and guide the Council as to the appropriate form of remediation required.

4.8.3 (Stage 3) Intrusive Site Investigation

It is anticipated that in many instances Stages 1 & 2 will provide enough information for the Council to make an informed evaluation of the site. However, there may be cases where the Council has only fragmented contaminative information and requires further clarification due to the presence of sensitive receptors. In this instance intrusive sampling and analysis will be required.

A simplistic scenario to illustrate this point could be a site of a former petrol filling station that was historically developed for residential use. No information exists in relation to any site remedial works and the current occupiers have identified possible hydrocarbon odours emanating from their service ducts. The site also overlies a major aquifer thereby posing a potential threat to controlled waters.

As in Stage 2, it would be envisaged that a suitably qualified person would be contracted to undertake this work on behalf of the Council.

Contractors will be selected in accordance with Council Policy and will be expected to undertake the investigations following the appropriate quality assurance procedures and Codes of Practice as stipulated by the British Standards Institute (BSI) and the Department for Environment, Food and Rural Affairs (DEFRA). Similarly, analysis of all samples must be undertaken by a United Kingdom UKAS accredited laboratory.

The intrusive investigation would be undertaken at the Council's expense in order to confirm that land is contaminated by the existence of significant pollutant linkages.

However, when this determination has been established (please refer to Section 4.8) the Council would be required to apportion liability to the

"appropriate persons" in order to ensure that further detailed site investigations and appropriate remediation works are undertaken.

It is of critical importance that all information and decisions made in relation to this procedure are verified and validated by the Environmental Health Services Manager, and the Council's Head of Law. This will ensure that the statutory guidance and legal obligations are being fully adhered to.

4.9 Determining Contaminated Land

In order to determine land as being contaminated, one or more of the following criteria must be identified.

- **Significant harm is being caused by a significant pollutant linkage.**
- **There is a significant possibility of significant harm being caused.**
- **Pollution of controlled waters is being caused.**
- **Pollution of controlled waters is likely to be caused.**

In order to establish the existence of the above criteria, it will be necessary to evaluate all the relevant and available evidence and carry out any necessary scientific and technical assessment of that evidence as appropriate (see Section 4.7 Site Investigation Procedures for Potentially Contaminated Sites).

If a contaminated land determination is established on the basis of a significant pollutant linkage/s, each component of the linkage/s (i.e. the source, pathway and receptor) will be detailed (see Section 5.5 The Register of Contaminated Land).

When a determination is made, effective liaison with the appropriate and interested persons will be a priority.

4.9.1 Appropriate Persons

When a site is determined as being contaminated, the Council will need to establish who the appropriate person is**.**

For the purposes of Part IIA of the Environmental Protection Act 1990, appropriate persons are categorised as either a **Class A** or a **Class B** persons.

A Class **A person** is any person, organisation or company that has **caused or knowingly permitted** contamination in, on, or under the land.

A Class **B person** would normally be the **current owner or occupier** and may be responsible for remediation if a Class A person cannot be located by the Council.

4.9.2 Interested Persons

Any person who can demonstrate that they have an interest in a potentially contaminated land site are considered to be an “interested person”.

This would include both current and former owners and occupiers, regulatory /statutory bodies, and neighbours.

4.9.3 Enforcement Powers

The statutory guidance emphasises that wherever practicable remediation should proceed by agreement rather than by enforcement action. In this context remediation could be carried out by mutual agreement without a remediation notice being served and remedial actions would be published in an agreed remediation statement.

On this basis, far more may be achieved by agreement than by enforcement. It is therefore hoped that by applying the above framework of effective liaison discussed in Section 5.4, the authority will obtain voluntary support and action from owners/occupiers or the appropriate person in order to meet its regulatory duties.

In some instances however, this may not always be possible and under Section 108 of the Environment Act 1995 the Council can authorise a person to exercise powers of entry. In normal circumstances the authorised person would provide the occupier of the premises with at least seven daysnotice of the proposed visit. However, in emergency circumstances the authority would require immediate action.

4.9.4 Hardship Provisions

Where cases of hardship may be a consideration, the Council will have regard to the relevant provisions contained in Chapter E of the 'DETR' Circular 02/2000.

5. Liaison, Consultation and Information

In order for the new regime to succeed in its objectives, the cornerstone of the strategy is effective liaison, consultation and the flexibility to respond to new information from many sources.

Figure 1 on page 42, highlights the role and relationship communication has in the development of the strategy by use of a flow diagram.

However, it should be noted that it is crucial that there should be ongoing liaison with all the relevant consultees regarding site specific issues.

5.1 Statutory bodies

Each organisation in the following list of Statutory Bodies were invited to comment on the consultation draft of this strategy.

- **Environment Agency**
- **English Nature**
- **English Heritage**
- **Department for Environment, Food & Rural Affairs**
- **Food Standards Agency**

5.2 Non-statutory bodies

Members of the public, businesses and voluntary organisations can make a valuable contribution to the development and implementation of the Council's contaminated land strategy.

Members of the community had the opportunity to inspect the draft document in all the Borough libraries and contact details were given to those who wished to make comment when the strategy was originally produced.

5.3 Internal Liaison with other Council Departments

As previously discussed, it is crucial that effective lines of communication are established with personnel in other key departments such as Planning, in order for the strategy to meet its objectives.

Clearly this will be a two-way process, where all information derived from inspection findings will be passed to these departments for evaluation and comment.

Conversely, new additional information supplied as a result of, for example, a planning application to the contaminated land project leader may trigger a review of the inspection programme in relation to specific sites or areas of land.

In addition, periodic meetings will be undertaken with these departments to ensure that the process is working effectively.

5.4 Liaison/Risk Communication with Appropriate Persons, Owners, Occupiers and Other Interested Parties

Implementing Part IIA of the Environmental Protection Act 1990 will involve significant liaison with a range of individuals and personnel involving internal departments and external organisations.

Given the complexity of land contamination issues it is likely that during these discussions many individuals may not have sufficient background knowledge of the issues to effectively contribute to the decision making process and will feel anxious and at a disadvantage.

It is therefore, essential that the authority provides an effective communication framework in order to overcome these potential problems. This framework will have the following core aims -

- **To identify at the earliest stage those individuals with an interest in the contaminated land (stakeholders).**
- **To commence the communication process with the stakeholders at the earliest opportunity, in order to build trust and confidence in the process.**
- **Ensure that the communication process provides stakeholders with adequate information concerning the concepts of a risk-based approach to the identification of contaminated land.**
- **To ensure continuity in the communication process, the contaminated land project leader will be the designated contact within the authority for all contaminated land issues.**

In addition, in terms of effective consultation, the wider community should also be provided with access to adequate background information concerning the new regime if required .

However, effective communication may also be necessary in order to inform members of the public that the regulations only give local authorities limited powers to deal with materials present in, on or under the ground unless a significant pollutant linkage is determined.

Individuals may feel that any unnatural materials in soil in the proximity of their dwellings should be dealt with immediately and in this context

careful explanation by the Council, of the risk-based approach (drawn from Sections 3 and 4 of the strategy) will be required.

5.5 The Register of Contaminated Land.

In line with the regulations, the Council is required to record and maintain a public contaminated land register.

The register will be held by the Environmental Protection Team at the 9 Holbeach Road office. It will be paper-based, not electronic and be **accessible on request to members of the public during office hours.**

Where a site is determined as contaminated land, the information that has been collected and verified as part of the inspection and assessment process will be recorded in the register.

Details of any land recorded in the register will be forwarded to the local land charges department in order that any individuals with an interest in the land have access to the relevant information.

Although unsubstantiated or anonymous information could be used to assist the investigation process, it should be noted that sites **will not be determined** as contaminated land and **will not be entered in the register** on the basis of this type of information.

The following information is specified in the regulations for inclusion in the register:–

- **Remediation Notices**
- **Remediation Statements and Declarations**
- **Site Information**
- **Special Sites**
- **Remediation Information**
- **Appeals against Remediation Notices**
- **Appeals against a Charging Notice**
- **Convictions**

5.6 Remediation Notices

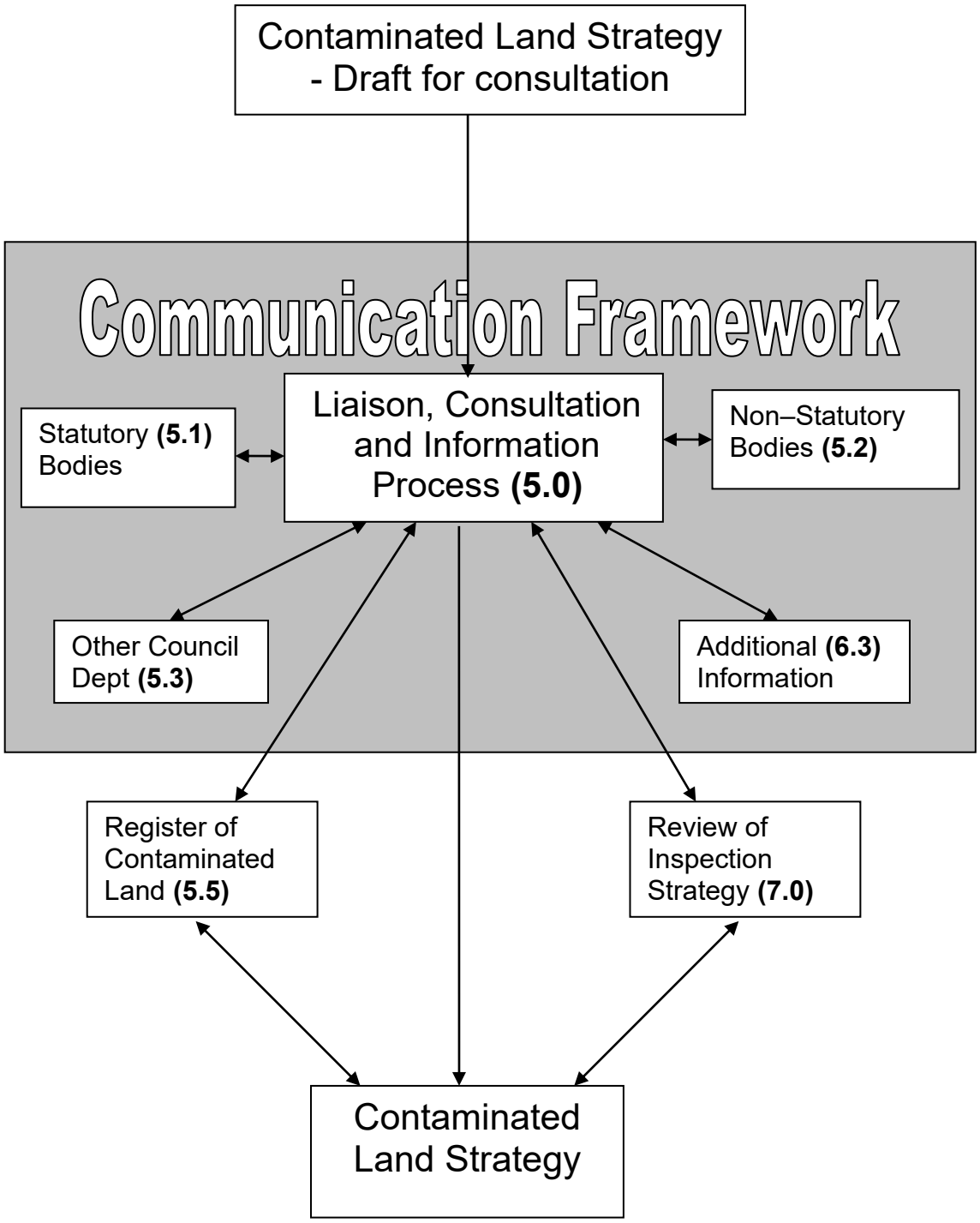
The Council will always endeavour through effective communication and negotiation to secure voluntary remediation of contaminated land by the appropriate person/s without the necessity of serving a remediation notice.

However, if the Council serves a remediation notice, the regulations clearly specify that it should be an informative and self-contained document. It will contain the following information, which will then be also recorded in the contaminated land register.

- **The type of problem**
- **The location of the problem**
- **Identify the appropriate person/s**
- **What the appropriate person/s is to do by way of remediation**
- **The proportion of costs each appropriate person will bear**
- **Timescales for this remediation**
- **The basis for the Council's actions**
- **Rights of appeal**
- **The remediation notice will be suspended in the event of an appeal**
- **Any other key information**

Figure 1

Flow diagram showing the role of communication within the development of the Contaminated Land Strategy



The bracketed figures indicate the number where more information is provided

6. Information Management System

It is envisaged that the inspection programme will generate considerable quantities of information that will require effective management.

6.1 Information Management

In order to ensure continuity in approach to the statutory functions, the contaminated land project officer will be the main point of contact within the Council for all matters relating to contaminated land issues. This officer will have the responsibility to ensure that all site records are administered correctly. This process will be routinely audited to demonstrate compliance with Council quality assurance procedures.

6.2 The Collection of Information

As previously discussed in Section 2.7 Known Information on Contamination within the District, all information which is available and applicable to the identification of potential pollutant linkages has been and will, as part of an ongoing process, continue to be added to the Council's Geographical Information System (GIS).

This system represents the main facility that will be utilised to manage all information relating to contaminated land. It will represent a significant resource for both interdepartmental and external liaison and for communication.

6.3 Evaluating Information

As discussed in 3.3 Objective 1 Approach to Inspection Prioritisation, effective utilisation of the data within the GIS system, will enable both potential sources of contamination and receptors to be identified.

The determination of potential pollutant linkages using the site prioritisation model will allow the principles of significant harm or significant risk of significant harm that is risk assessment, to be applied to the data. This information will then define the priority attached to the order of inspections to be carried out.

In order to ensure that the Council makes the correct decisions in its designation of contaminated land, all relevant information will be subjected to evaluation and verification. In the course of this evaluation the Council may use its statutory powers to obtain any required additional information. The aim of the Council will be to ensure that all decisions are made on the basis of the best available information and in the interests of preventing harm to human health and the environment.

6.4 Data Storage

The GIS system will represent the main tool used to manage data relating to the inspection programme.

For specific identified sites it will be possible, via a database, to access the primary information details relating to that site. The database will be continually updated as new information is received.

This information will be cross referenced to all other relevant sources of information, such as site investigation reports and their location within the department.

On this basis, given that a large proportion of the information will be extensive documentation, it would not be appropriate to scan it into the database for reference. Therefore, hard copies of all information relating to the inspection programme will be retained and filed in a specific locked storage facility.

6.5 Confidentiality

The Council will consider whether any information will be excluded from the register on the basis that its inclusion would be against the interests of national security or the information is commercially confidential; although certain grounds of commercial confidentiality are excluded from anonymity by the legislation. If any information is excluded, a note will be entered on the register and will state that although additional information exists it has been removed for specific reasons.

7. Review Mechanisms

Whilst the Council Strategy document outlines how the requirements of Part IIA legislation will be undertaken, it is vital that the strategy should also incorporate the flexibility to accommodate new information and reassessment of its procedures and objectives.

7.1 Reviewing the Inspection Strategy

In order to ensure compliance with the legislation and quality management of the work programme, it will be necessary to periodically review the strategy inspection objectives.

These will be re-evaluated as part of the Annual Business Plan.

Should this process highlight any major procedural difficulties then these will be dealt with as a matter of urgency.

7.2 Triggers for Undertaking Non – Routine Inspections

The routine strategy inspection programme will respond to accommodate any changes in circumstances or triggers.

In this context the triggers listed below would prompt either an immediate review of inspection findings concerning an area of land or instigate a total reappraisal of that land.

- **Information related to a particular piece of land which involves localised health effects.**
- **Responding to new information of unusual site conditions from owners or occupiers of the land, business, statutory bodies, members of the public, voluntary organisations, and any other relevant parties.**
- **Unplanned events such as accidents or natural disasters.**
- **Changes in the use of the land, or land surrounding a location, which could affect receptors.**

7.3 Triggers for Reviewing Inspection Decisions

There may be occasions where the findings of previous inspection decisions have to be reviewed. This might occur for example, if there were:

- **Significant changes in the legislation**
- **Establishment of significant case law or other precedent**
- **Revision of guideline values for exposure assessment**

In order to facilitate an effective review mechanism, all decisions made will be efficiently recorded.

7.4 Inspection Frequency

The site investigation programme may identify sites that are in a contaminated state, but have not been defined as being 'contaminated land' due to the absence of significant pollution linkages at that time.

However, it will be necessary for the Council to carry out annual reviews of such land in order to assess that the site still meets those criteria and remains suitable for its current use.

Appendix A Glossary

A detailed glossary of legal definitions and terms that may be used in this strategy can be found in the Department of the Environment, Transport and the Regions Circular 02/2000. This Glossary provides an interpretation of terms used in order to assist the reader of this strategy document.

AONB - Area of Outstanding Natural Beauty

Appropriate Person - A person who as defined in accordance with section 78F in Part IIA of the EPA 1990, would bear responsibility for anything which has be done by way of remediation in any particular case.

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

Class B Person - The current owner or occupier of the land where no class A person can be found in relation to remediation action.

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

Contaminated Land - Any land which appears to the local authority in whose area it is situated to be in such a condition, by reason of substances, in on or under the land that :

a) Significant harm is being caused or there is a significant possibility of such harm being caused; or
b) Pollution of controlled waters is being, or is likely to be caused.

Controlled Waters -

a) Inland waters (rivers, streams, underground streams, canals, lakes, and reservoirs)
b) Groundwaters (any waters contained in underground strata, wells or boreholes).
c) Coastal waters

Council – The London Borough of Lewisham

DEFRA - Department for Environment, Food & Rural Affairs

DETR – Department of the Environment, Transport and the Regions

Drinking water abstraction – Taking water from a source (primarily an underground source) to supply water for human consumption.

EA – The Environment Agency

Eco-system – A sustainable biological system of interdependent living organisms

Environmental Protection Team The team within the Council's Environmental Health Department, which has responsibility for the implementation of Part IIA of the Environmental Protection Act 1990

GIS - Geographical Information System

Groundwater - Any water contained in underground strata, wells or boreholes

ICRCL - Interdepartmental Committee on the Redevelopment of Contaminated Land

Liability Group - The appropriate persons with respect to a particular significant linkage

LNR - Local Nature Reserve

NNR - National Nature Reserve

Orphan site - A site that is determined as contaminated land, but where no appropriate person is liable for the remediation of the significant pollutant linkage

Part IIA - Part IIA of the Environmental Protection Act 1990 as inserted by s.57 of the Environment Act 1995

Pathway - One or more routes by which a receptor can be exposed to a contaminant

Pollutant Linkage - The relationship between a contaminant, a pathway and a receptor

Ramsar Site - A site protected under an international convention on protection of wetlands of international importance, especially as habitats for waterfowl

Receptor - A person, controlled waters, ecosystem, building or property type that could be affected by contamination

Remediation - The carrying out of works to assess, prevent or minimise the effects of contamination. The term also encompasses assessment of the condition of the land and subsequent monitoring of land in the legislation

Remediation Action - Any action which is being, or is to be, done by way of remediation

Risk Assessment - The evaluation of the likelihood and consequences of a hazard

SAC - Special area of conservation

Significant Harm - Harm that is determined as being significant in accordance with the statutory guidance

Significant Pollutant Linkage - The linkage upon which the determination of contamination is based.

Significant Pollutant - A pollutant which forms part of a significant pollutant linkage

SNCI - Sites of Nature Conservation Importance

Source - A substance in, on or under the land which has the ability to cause harm

Source Protection Zone (SPZ) - A protected designated area around sources used for public water supply. Within these zones, certain processes and activities are strictly regulated

SPA - Special Protection Area for birds

Special Site - Any contaminated land which due to the presence of the following has been designated as being a Special Site under section 78A (3) of the EPA 1990 Part IIA, and is regulated by the Environment Agency

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

SSSI - Site of special scientific interest

Suitable Person - A person that is assessed by the relevant authority as being suitably qualified and experienced to perform a specific task/s.

Appendix B Statutory Contacts for Consultation

Area Contaminated Land Officer
Environment Agency
Frimley Office
450 the Quadrangle
Frimley Business Park
Camberley
Surrey
GU16 7SQ

Nick Radford
English Nature
Essex, Hertfordshire and London Team
Ormond House
26 -27 Boswell Street
London
WC1N 3JZ

Alan Byrne
English Heritage
Fortress House
23 Saville Row
London
W1S 2ET

Dr Patrick Miller
Food Standards Agency
Contaminants Division
7th Floor
Aviation House
125 Kingsway
London
WC2B 6NH

Department for Environment, Food & Rural Affairs
National Land Management Team
Southgate Street
Bury St Edmunds
Suffolk
IP33 2BD

Appendix C Potentially Sensitive Receptors

RECEPTOR	LAND USES
Human beings	Allotments Residential with gardens Residential without gardens Schools or nurseries Recreational/Parks, Playing Fields, Open Space Commercial/Industrial
Property in other forms Home grown produce, crops, livestock, owned or domesticated animals, wild animals subject to shooting or fishing rights	Allotments and gardens Agricultural land Forestry areas Other open spaces, rivers, lakes etc.
Controlled Waters	Surface waters Drinking Water Abstractions Source Protection Zones Groundwaters - Private Abstractions Groundwaters - Major Aquifers
Ecological systems or living organisms forming part of a system within protected locations	Sites of Special Scientific Interest (SSSIs) National Nature Reserves Marine Nature Reserves Special Areas of Conservation (SACs) Special Protection Areas (SPAs) Candidate SACs and SPAs Nature Reserves Areas of special protection for birds RAMSAR sites
Property in the form of buildings	Ancient Monuments Buildings

Appendix D Bibliography

Part IIA, Environmental Protection Act 1990

The Environment Act 1995, HMSO (1995)

DETR Circular 02/2000, Environmental Protection Act 1990: Part IIA Contaminated Land, HMSO (2000)

Contaminated Land Inspection Strategies, Technical Advice for Local Authorities, DETR (Draft for comment April 2000)

Methodology for the Derivation of Remedial Targets for Soil and Groundwater to Protect Water Resources, Environment Agency Publication 20 (2000)

Environmental Protection, 2000/227) The Contaminated Land (England) Regulations 2000, HMSO (2000)

Communicating Understanding of Contaminated Land Risks, Sniffer 2000

Department of the Environment (1994) Paying for our past. Consultation Document

London Borough of Lewisham Unitary Development Plan (2000)

Other relevant statutory instruments and guidance

Wildlife and Countryside Act 1981 (as amended) particularly with respect to protected species

Planning Policy Guidance 9: Nature Conservation

Planning Policy Guidance: Planning and Pollution Control (PPG 23)

DOE Circular 11/95 The Use of Conditions in Planning Permissions

Town and Country Planning Act 1990

Building Regulations 1991

Section 27 of the Environmental Protection Act 1990. Integrated Pollution Control (IPC) & Pollution Prevention & Control (PPC)

Part II of the Environmental Protection Act 1990. Waste Management Licensing

Sections 161 & 161D of the Water Resources Act 1991
Part I of the Food and Environment Protection Act 1985

The Health and Safety at Work etc Act 1974

The Finance Act 1996 - Landfill Tax

The Control of Major Accident Hazard Regulations 1999 (COMAH)