Contaminated Land Strategy 2022

Public Protection and Enforcement
London Borough of Bromley
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Executive Summary

There is a legacy of contaminated land in the United Kingdom, due to its industrial heritage and historical waste disposal practices. There are now various regimes in place to prevent new and future land contamination, however, historic contamination remains and still has the potential to adversely affect people's health, and to damage water quality, ecological systems, and property.

The Environmental Protection Act 1990, supplemented by the Environment Act 1995, placed a statutory obligation on local authorities to address land contamination issues in their area and to set-up and maintain a register of details of any land classed as 'Contaminated Land' under the Act. The legislation also required local authorities to have a strategic framework to show how they intend to implement the statutory obligations.

Following statutory consultation, the first strategy was prepared and adopted by the Council in June 2002. It set out the strategic approach to identify and address known land contamination issues in the borough. The strategy has since been revised and renewed.

This document is the 3rd version of the strategy and accounts for all changes in relevant legislation and guidance and the progress made against the strategic aims and objectives. It sets out how the London Borough of Bromley will prevent, mitigate and control of contaminated land using planning and legislative processes and outlines how we will identify and address contaminated land using risk-based prioritisation.

Statutory bodies that have a role in the regulation of contaminated land have been consulted on this strategy. These include:

- Environment Agency
- Natural England
- English Heritage, and
- Department for Environment, Food and Rural Affairs (DEFRA)

The planning regime allows for conditions to be applied to the permission for proposed development/s at the point where developers are seeking approval. The regime allows for the oversight and control of contaminated land remediation activities on previously used and developed (brownfield) sites. This strategy links to the Local Plan, approved by Council in 2019, which promotes the remediation of land that has, or may have, become contaminated, using the development process. The Local Plan highlights development as the main route for bringing contaminated land back into appropriate and beneficial use, thus improving the environment.

Contents

Part 1– Introduction and Background

1.0 Introduction

Section 57 of the Environment Act 1995 inserted provisions for dealing with contaminated land into Part 2A of the Environmental Protection Act 1990.

This regime requires all Local Authorities to inspect their areas for contaminated land and produce a strategy outlining how they will approach this task.

The main aim of the legislation is to address the problem of historical contamination of land and to ameliorate the risk it can pose to health and the environment. The above Acts contain the main legislative provisions of the contaminated land regime with further detail contained in the Contaminated Land (England) Regulations 2006 (SI 1380), subsequent amendments from the Contaminated Land (England) (Amendment) Regulations 2012, and the most recent statutory guidance from DEFRA published in April 2012.

The statutory guidance explains how local authorities should implement the regime and the approach to be taken when deciding whether land potentially containing contamination is 'contaminated land' under the legal definition. The guidance elaborates on the remediation provisions of Part 2A, such as the goals of remediation, and how regulators ensure that any remediation requirements are reasonable.

The central purpose of the regime is to encourage the voluntary remediation of land affected by contaminants. Part 2A of the Environmental Protection Act 1990 should only be used to require remediation when no other solution is available.

1.1 Regulatory Context

Part 2A of the Environmental Protection Act 1990 specifies that the primary regulatory role for the contaminated land regime rests with the local authority.

"The overarching objectives of the government's policy on contaminated land are:

a) To identify and remove unacceptable risks to human health and the environment.
b) To seek to ensure that contaminated land is made suitable for its current use.
c) To ensure that the burdens faced by individuals, companies, and society are proportionate, manageable and compatible with the principle of sustainable development."

The statutory requirements of local authorities are:

- To produce a written strategy
- To demonstrate how we will deal with contaminated land in a rational and risk-based approach
- To ensure we inspect our area from time to time to identify any land that has been contaminated and ensure that land is suitable for its current use

- To establish the responsibilities for remediation of contaminated land in a proportionate manner, including the role of the regulators and the role of 'Appropriate Persons' under the Act
- To demonstrate the hierarchy of mechanisms that ensure contaminated land is remediated where necessary
- To maintain a Public Register of contaminated land, detailing any regulatory action taken under Part 2A of the Environmental Protection Act 1990.

A list of all relevant statute and guidance is detailed in Appendix 1.

1.2 Definition of Contaminated Land

Section 78A (2) of the Environmental Protection Act 1990 gives the statutory definition of 'contaminated land' for the purposes of Part 2A 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. significant pollution of controlled waters or there is a significant possibility of such pollution".

This definition promotes a risk-based approach. The remediation of land is required only if the contamination causes a significant possibility of significant harm to human health, ecology, or controlled waters. To be determined as contaminated land under Part 2A there must be a 'significant contaminant linkage' to a defined receptor, as detailed in Chapter 2, or a significant possibility of such a linkage. Contaminants maybe present in land but if there is no linkage then the land is not 'contaminated land' under the Act, thus no action is required, other than to consider the possibility of creating new linkages should the land be disturbed or (re)developed. This can be referred instead as land affected by contamination.

1.3 Controlled Waters

The contaminated land regime considers controlled waters a receptor. Section 78A (9) of Part 2A provides the definition for the term "pollution of controlled waters" as the entry, into controlled waters, of any poisonous, noxious, or polluting matter, or any solid waste matter.

Controlled waters are rivers, streams, estuaries, canals, lakes, ponds, and groundwater as far out as the UK territorial sea limit. The statutory definition of controlled waters is given under section 104(1) of Water Resources Act 1991. The term "controlled waters" in relation to England under the Environmental Protection Act and for the purposes of contaminated land has the same meaning as in Part 3 of the Water Resources Act 1991, except that "ground waters" do not include waters found above the saturation zone.

1.4 Special Sites

Special Sites are regulated by the **Environment Agency**. There are four main categories of Special Site in the regulations:

- *Water pollution sites* – This includes areas of contaminated land affecting drinking water supply or (potentially) polluting controlled waters within a major aquifer. They are sites where:
    - Drinking water supplies are affected
    - Water quality criteria are affected
    - Listed substance/s are affecting defined aquifer/s
- *Industrial sites* – This includes specific circumstances, for example, acid tar lagoons, sites where explosives were manufactured, or a site for an authorised process under the Environmental Permitting (England and Wales) Regulations and its predecessor regimes. They are sites that previously had:
    - Waste acid tar lagoons
    - Petroleum refineries
    - Explosives manufacture or processing
    - Authorised Process/es (for example Integrated Pollution Control sites, Pollution Prevention and Control sites and Environmental Permitting Regime sites)
- *Radioactivity sites* – Where land is contaminated land by virtue of radioactivity. This includes nuclear sites, some historical watch manufacturing sites, etc.
- *Defence sites* – This includes land currently owned or occupied by the Ministry of Defence (the Crown) and those of visiting forces and includes sites used for weapons development, manufacture, processing, testing or disposal

1.5 The Role of the Local Authority

The **local authority** has a duty, under Part 2A of the Act, to carry out the following:

- To inspect their area for land that is potentially contaminated
- To determine whether a particular site meets the statutory definition of contaminated land
- To act as enforcing authority for all contaminated land sites, unless the site meets the definition of a Special Site
- To consult with the Environment Agency on issues pertaining to the pollution of controlled waters
- To ensure the remediation of contaminated land
- To maintain a public register of contaminated land, as defined under the Act, and any remediation undertaken thereto.

1.6 The Role of the Environment Agency

The **Environment Agency** has the duty to:

- Assist local authorities in identifying contaminated land, particularly in cases where water pollution is involved and for potential Special Sites. At sites that are not

special, responses regarding the pollution of controlled waters are dependent on the sensitivity of the site and the value of the ecological and water assets in question
- To provide consultation on contaminated land inspection strategies.
- To provide site-specific guidance to Local Authorities regarding sites which may be potential Special Sites
- To act as the enforcing authority for any land designated as a Special Site
- To publish periodic reports on contaminated land
- To ensure the remediation of Special Sites
- To maintain a public register of Special Sites and their remediation history

1.7 Development of the Inspection Strategy

The purpose of this strategy is to ensure that all those involved and/or affected by contaminated land have a clear understanding of the reasons for the identification and inspection of potentially contaminated land sites. This strategy indicates how the priority of inspection is risk rated, based on potential contaminants and the potential exposure of receptors.

The approach taken reflects local circumstances, the physical nature of land and controlled waters, and the history of industry and potentially contaminating land uses in the Borough.

Part 2 – Risk Assessment

2.0 Contaminant Linkages & Risk Assessment

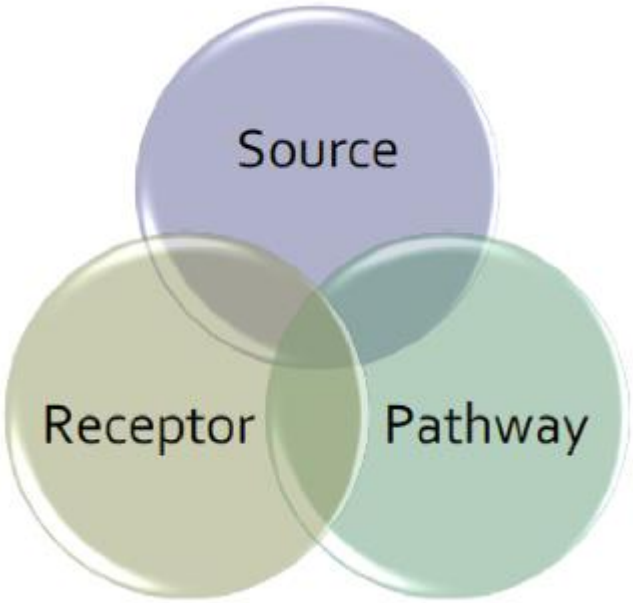
The statutory guidance states that:

> *"Under Part 2A the starting point should be that land is not contaminated land unless there is reason to consider otherwise. Only land where unacceptable risks are clearly identified after a risk assessment has been undertaken in accordance with this Guidance should be considered as meeting the Part 2A definition of Contaminated Land."*

2.1 Contaminant Linkage

The term contaminant linkage refers to the relationship between a contaminant, a pathway, and a receptor. For risk to exist there must be a contaminant present in, on or under the land, in a form and quantity that pose a hazard and with one or more pathways via which the contaminant(s) could reach and affect a defined receptor.

There must be a reasonable possibility that a significant contaminant linkage could occur and that it gives rise to a sufficient level of risk to justify a piece of land being determined as 'contaminated land' as defined under the Act.



On sites where all 3 of the above elements exist, the Council will undertake a formal risk assessment and prioritise high risk sites to establish if there is potential for them to cause significant harm. The Council has already done a search of historical maps

and activities and identified sites with specific historical land uses. The sites have also been risk assessed regarding potential linkage/s to receptor/s.

2.2 Principles of Risk Assessment

When carrying out site risk assessment under the Part 2A Environmental Protection Act 1990 regime, the Authority will focus on land that might pose an unacceptable risk to human or environmental receptors.

The Environmental Protection Act 1990: Part 2A Contaminated Land Statutory Guidance 2012 defines, “risk” as the combination of the:

1. Likelihood that harm, or pollution of water, will occur because of contaminants in, on or under the land, and the
2. Scale and seriousness of such harm or pollution if it did occur.

The information that will be considered shall be:

- Scientifically based
- Authoritative
- Relevant, and
- Appropriate

When informing risk assessment decisions in accordance with the Environmental Protection Act 1990: Part 2A Contaminated Land Statutory Guidance.

Risk is the combination of the probability or frequency of an occurrence of a defined hazard and the magnitude of the consequences. The local authority must be satisfied of the existence of a contaminant linkage and then must then satisfy itself that significant harm is being caused to a receptor, or, that there is a significant possibility of significant harm; or there is pollution of controlled waters, or such pollution is likely.

Statutory guidance states that the term “possibility of significant harm” as it applies to human health, means the risk posed by one or more relevant contaminant linkage(s) relating to the land. It comprises:

1. The estimated likelihood that significant harm might occur to an identified receptor, taking account of the current use of the land
2. The estimated impact if the significant harm did occur i.e., the nature of the harm, the seriousness of the harm to any person who might suffer it, and (where relevant) the extent of the harm in terms of how many people might suffer it.

It is important that the problem of contaminated land is approached in a risk-based manner. In this way, resources are targeted at sites where there is most likely to be a problem and thus, the remediation carried out will be cost-effective.

2.3 Risk Categories

The statutory guidance (2012) provides risk categories to assist regulators assess whether a site poses a significant possibility of significant harm. The guidance has 4 risk categories.

Land is risk-assessed, based upon the contaminants expected from previous land uses and the site's current land use. On completion of site investigation, those areas risk-assessed within Human Health Categories 1 and 2 would be determined as 'contaminated land' under the Act as they would show 'significant possibility of significant harm to human health'. Land assessed within Human Health Categories 3 and 4 do not demonstrate sufficient evidence of risk to be capable of being determined as contaminated land.

The Authority will also consider the potential of 'significant possibility of significant pollution of controlled waters' posed by the land.

The Pollution of Controlled Waters Categories 1 and 2 would comprise of sites where the Authority considers that a 'significant possibility of significant pollution of controlled waters' exists. Categories 3 and 4 would comprise of sites where the Authority considers that a significant possibility of such pollution does not exist.

The risk categories are summarised in the Table in Appendix 2.

2.4 Normal Presence of Contaminants

Normal levels of contaminants in soil should not be considered as cause for land to de defined as 'contaminated land' unless there is a reason to consider it otherwise.

DEFRA commissioned the British Geological Society (BGS) in 2011/2012 to give guidance on what are normal levels of contaminants in English soils. The BGS produced guidance for the expected concentrations for 7 soil contaminant concentrations for UK regions. The contaminants covered include arsenic, benzo[a]pyrene (BaP), cadmium, copper, mercury, nickel, and lead. Asbestos (a naturally occurring crystalline compound) was, on consideration, not included by the BGS as it was technically difficult to capture a representative value/level across a region.

If it is established that land is at, or close to expected (normal) levels of the above 7 contaminants, the Authority will not consider it contaminated with regard to the Part 2A regime.

2.5 Use of Generic Assessment Criteria and other Technical Tools

During the detailed investigation of a site the Authority will carry out risk-based assessment of contaminants based on the DEFRA Soil Guideline Values (SGV's).

DEFRA produced 9 Soil Guideline Values (SGV's) for contaminants, to assist in the assessment of site soils and land. In the absence of Defra SGV Guideline Values the Authority will use Generic Assessment Criteria (GAC's) from a variety of trusted sources. The GAC's currently used by the Authority include those from the Chartered Institute of Environmental Health (CIEH).

The Authority will use various GAC's and other tools to help inform decisions under the Part 2A regime, provided it can be shown how and where the GAC's were derived, they are used appropriately and they have been produced in an objective, scientifically robust and expert manner by a reputable organisation.

Site Specific Values (SSV's) are produced using the Contaminated Land Exposure Assessment (CLEA) tool. The Environment Agency has published calculations for deriving SGV's in a spreadsheet, for professional use in conjunction with the wider guidance. In addition, a specific spreadsheet to support the assessment of dioxins in soil has been published.

During the detailed investigation of a site the Authority will carry out risk-based assessments on controlled waters based. This is based on available guidance that includes but is not exclusive of:

- The Water Framework Directive 2000
- Drinking water standards June 2017
- Hydrogeological Risk Assessment for Land Contamination – Remedial Targets Methodology' (2006)
- Environmental Quality Standards Directive 2016

2.6 Site Investigations

The decision to carry out further site investigations is based upon a risk assessment using all information collated. The assessment of an individual site is a phased process. The 6 main phases are listed below.

2.6.1 Desk study reports

Phase 1 desk study reports are required to obtain more detailed site-specific information. They include a review of information held by other departments at the Authority and publicly available information sources. For example:

- Planning and building control records
- Coal Authority
- British Geological Survey
- Historical maps
- Historical local business gazettes
- Waste & pollution permitting regimes

2.6.2 Site Inspections

Phase 2 site inspections usually include site walkovers, to determine if there are any noticeable sights or odours that might provide evidence of obvious contamination to the assessment of whether contaminants are present and a Contaminant Linkage likely.

Under Section 108 of the Environment Act 1995 the Authority has specific powers to authorise suitable persons to enter sites to carry out an inspection. It is not necessary to utilise this power if detailed information on the condition of the land is available to provide an appropriate basis for determination. If it is considered that an intrusive investigation is warranted following the site walkover, then the extent of the site investigation is determined by the Authority or a Council approved external consultant. Intrusive investigation usually involves soil tests and the analysis of soil and ground water samples, to determine if the land is contaminated.

If / When the Authority utilises its power of entry, at least 78 days' notice is given to the owner. This notice period can be foregone if there is high risk of an immediate and serious risk to human health or the environment.

2.6.3 Preliminary Site investigation

Depending on the desk study and the site walkover it may be determined that small scale site investigation using targeted sampling and analysis of a site is appropriate. Depending on the results of the small-scale investigation it may be considered that more information is required to make the determination. If so a larger and more comprehensive site investigation may be required. The risks to receptors would be continually reviewed to determine action required.

2.6.4 Production of Risk Summaries

Prior to determination as per the Statutory Guidance 2012, the Authority must "*produce a risk summary for any land where, on the basis of its risk assessment, the authority considers it is likely that the land in question may be determined as contaminated land."*

The risk summary document sets out the reasoning behind the Authority's decision to determine the land as 'contaminated land' under Part 2A. It will include a description of the risks and factors the authority considers to be relevant in formulating the decision to designate.

2.6.5 Written Statements

Following completion of the intrusive investigation and risk summary, and if it is found that the land does not require remediation, the guidance requires the Authority to produce a Written Statement for the land. This is to remove any uncertainty and to prevent the land being blighted. This document will lay out the rationale as to why the Authority has decided not to designate the land and the decision will be based on the

current land use. If a significant change of use is proposed for or occurs at the site then the Written Statement may be invalidated and the site will need to be reassessed for its current land use.

2.6.6 Voluntary Remediation

The Strategy encourages the appropriate persons to carry out voluntary remediation. Sites defined as ‘contaminated land ‘under the Act would be remediated to a standard that prevents contaminant linkages for their current land use.

Part 3 – The London Borough of Bromley

3.1 Characteristics of the London Borough of Bromley

This chapter sets out various characteristics of the London Borough of Bromley relevant to the identification of contaminated land.

3.2 Location

The London Borough of Bromley is situated in the South East of London and/or North West of Kent. It was formed in 1965 from the Boroughs of Bromley and Beckenham, the urban districts of Orpington and Penge, and the Chislehurst part of Chislehurst & Sidcup.

The Borough extends from Crystal Palace and Mottingham in the north, to beyond Biggin Hill almost to the M25 to the south, and from West Wickham in the west to the edge of Swanley in the east.

Geographically Bromley is the largest London Borough with an area of over 15,000 hectares.

Figure 1 – Location of London Borough of Bromley in Greater London

3.3 Population

The population of Bromley is approximately 333,000. This population is not spread evenly. The northern half of the Borough is much more densely populated, and of this, the north-west corner is the most densely populated with Penge having the highest number of residents per hectare.

The southern half of part of the Borough is far less developed, with Darwin and Biggin Hill Wards on the outer edge of Greater London being the least densely populated per hectare.

3.4 Land Use

Biggin Hill airport was previously a base for RAF fighter command during WWII. It is a civil airport used predominately by private aircraft with a limited number of scheduled flights. There is business use within the perimeter of the airport on and it is a significant employment location.

The main employment area in the Borough is Bromley Town Centre. The borough has 218,000 sqm of office space with 97,500 sqm in Bromley town centre and 8,000 sqm in Orpington town centre. The area of land designated as Strategic Industrial Location (SIL) and Locally Significant Industrial Sites (LSIS) totals 466,000 sqm and 395,000 sqm respectively. Non-designated industrial/warehousing sites provide 159,000 sqm of floorspace.

Bromley does not have a history of widespread industrialisation as it was predominantly rural before becoming largely residential. However, there are some industries that have historical associations, for example:

- GlaxoWellcome Laboratories in Beckenham – used for the research and production of pharmaceutical products. Part of this site has now been redeveloped for residential use.
- Paper mills on the banks of the River Cray
- Bollom in Orpington – who pioneered the manufacture of brightly coloured paints after WWII.
- Chalk mines in Chislehurst – which over many hundreds of years formed Chislehurst Caves, now a local attraction.

Mirroring the rest of the UK economy there has been a decline in manufacturing in the Borough. However, over 100ha of land remains in industrial or warehousing use, mainly situated in the Cray Valley, Lower Sydenham, Elmer's End and at Biggin Hill Airport.

In the southern half of Bromley there is over 7700ha of London's green belt. This area equates to more than half the total area of Bromley, but as designated green belt, further development is strictly controlled through the planning process. A significant number of farms are in this area.

There are many parks and open spaces in Bromley. One of the largest is Crystal Palace Park, the site of a Palace destroyed by fire in 1936.

3.5 Other Receptors

3.5.1 Scheduled Ancient monuments

These sites may require special protection from contamination as by their very nature they should be protected.

There are 10 scheduled ancient monuments. Sites 1, 3, 4, 5, 7 and 8 are owned by the London Borough of Bromley. They are:

1. **Fordcroft**, Poverest Road, Orpington – Romano British site and Anglo-Saxon cemetery
2. **Caesar's Camp**, Holwood Park, Keston – Iron Age hill fort
3. **Camp on Keston Common**, Keston – Ancient earthworks
4. **The Temple**, west of Keston Court, Westerham Road, Keston –Romano British mausoleum
5. **Ruins of a villa**, Crofton Road, Orpington – Romano British villa
6. **St Botolph's Church**, Ruxley – Former medieval church on the site of an even earlier church
7. **Ruins,** Wickham Court Farm, West Wickham – Substantial Romano British settlement
8. **Ice Well**, High Elms
9. **Ruxley Old Church**, Cray Valley East
10. **Sadbury Manor** Chislehurst - Moated manor site and fishponds

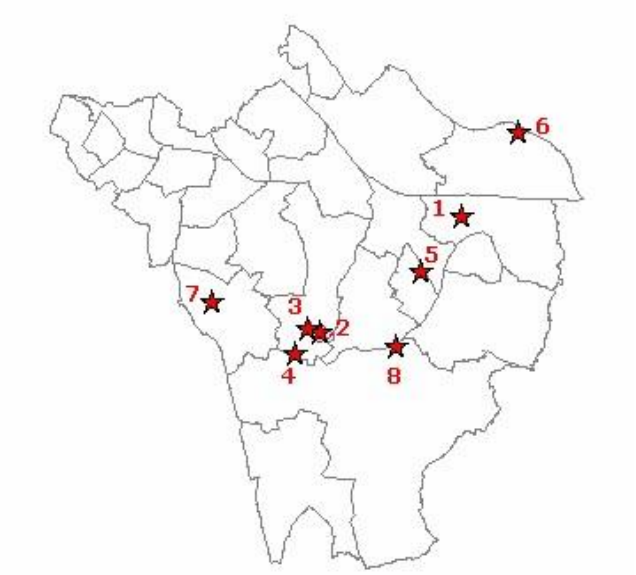


Figure 2 – Scheduled Ancient Monuments in Bromley

3.5.2 Sites of Special Scientific Interest (SSIs)

Sites of Special Scientific Interest are of national importance by reason of such things as flora, fauna, or geology. There are 6 SSSIs in Bromley, they are:

1. Crofton Woods
2. Downe Bank and High Elms
3. Keston & Hayes Commons
4. Elmstead Pits
5. Ruxley Gravel Pits
6. Saltbox Hill

3.5.3 Other Ecological Areas

There are 5 nature reserves located at Scadbury Park, Chislehurst; Jubilee County Park, Petts Wood; High Elms Country Park, Farnborough; Darrick and Newstead Woods; and Keston Common. There are 32 sites of nature conservation interest across the Borough, see Figure 3, and the south-eastern tip of the Borough is part of the North Kent Downs Area of Outstanding Natural Beauty.

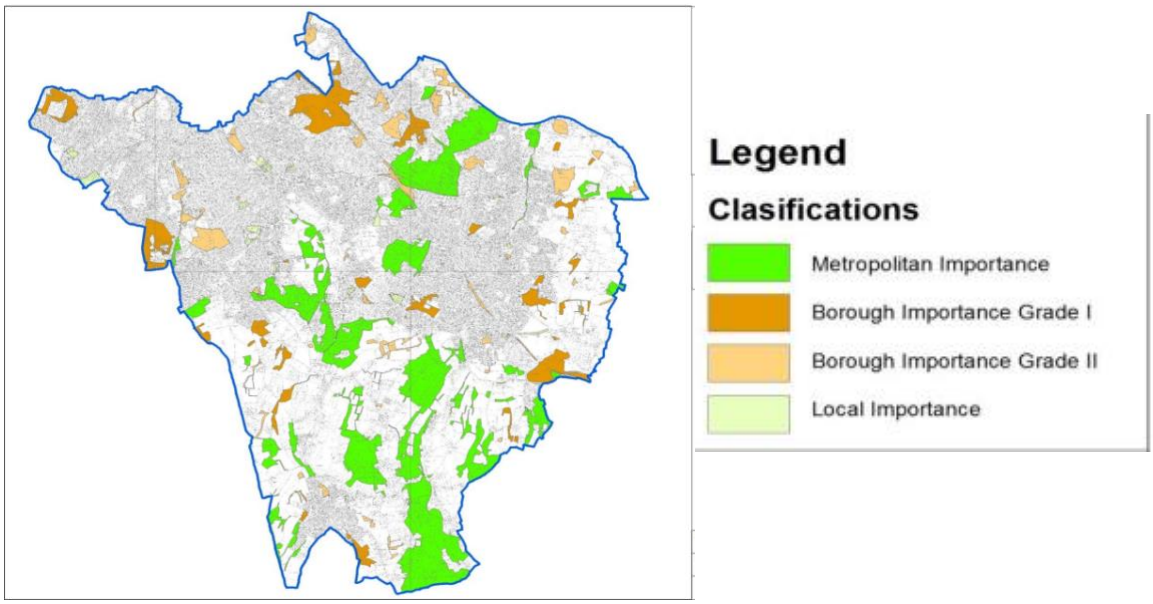


Figure 3 – Sites of Importance for Nature Conservation

Darwin's Landscape Laboratory, in Downe, is on the UK's tentative list to qualify for inclusion in the list of World Heritage Sites. This site includes Down House, Charles Darwin's home, and surrounding countryside.

The GLA has re-surveyed and re-named their Sites of Nature Conservation Interest (SNCI's) and Sites of Importance for Nature Conservation (SINCs) since 2002. The number and area of sites in Bromley has increased from 51 (1,109Ha) to 97 (2,691Ha) and there were 109 sites counted in 2020.

3.5.4 Geological Characteristics

The geology of the Borough is split into two distinctive areas. Upper and Middle Chalk occurs in the south and north east.

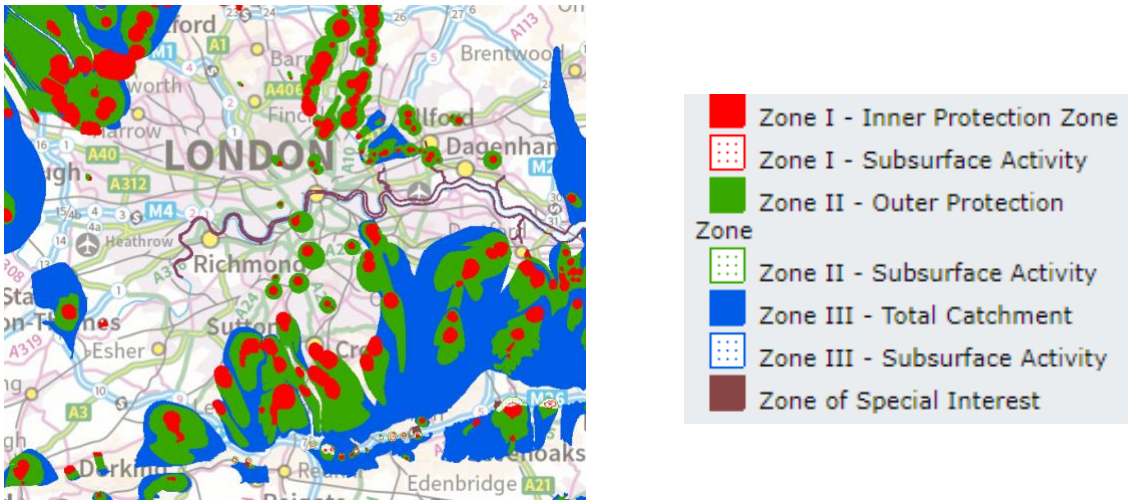
In the north-west the chalk gradually becomes covered by a tertiary sequence of rock comprising of layers of clays and sands. The Thanet sands form the base of this sequence. This is overlain by the Woolwich, Reading and Blackheath beds. In some parts of the Borough these beds are, in turn, overlaid by London Clay.

3.5.5 Hydrogeological Characteristics

The Chalk is the major aquifer of Southern England and is extensively used for public water supply and private purposes. Groundwater is found within the sand and pebble

layers within the above tertiary sequence and in the drift deposits that line the river valleys. The head of the River Ravensbourne emerges as a spring from the Blackheath beds.

As the groundwater is used for drinking water, it is important to protect it from contamination that can pass into it through the soil and rocks above. The Environment Agency has developed the concept of "Source Protection Zones" around water supply boreholes. These zones are defined around a borehole and are based on the time contaminants would take to travel to the borehole in the groundwater. Zone I represents 50 days travel time, Zone II 400 days, and Zone III is the total catchment area for the borehole. Source protection zones in and around the Borough are shown in different scales in Figure 4.



Figures 4 – Source Protection Zones in & around Bromley

3.6 Action taken to address land contamination

3.6.1 Computer Software

Since the previous version of the strategy the **ConSEPT** (**Con**taminated **S**ite **E**valuation and **P**rioritisation **T**ool) integrated GIS programme developed for the prioritisation of potentially contaminated land has been replaced with **GeoEnviron**.

The GeoEnviron system provides:

- Brings all data sources into one system
- Powerful seamless GIS capabilities – The integrations allow the results of database queries to be instantly visualised in GIS and vice versa.
- A proven site prioritisation system
- Extensive decision support including an extensive knowledge database that includes information including DoE industry profiles, the chemical properties of over 1000 potential contaminants, commonly used generic guideline values and effective remediation technologies

3.6.2 Strategic Prioritisation of Contaminated Land Inspection

The Authority prioritised the identification and inspection of land in the 2002 strategy issued in by auditing the historical maps, geology, and receptors to create a database and geographical information system of areas of potentially contaminated land. A total of 868 potentially contaminated sites were identified within Bromley.

Sites were accorded a risk-based prioritisation ranking of low, intermediate, or high on the likely contaminant toxicity, to reflect the seriousness of the actual or potential risk to human health and/or the environment.

The initial rankings helped develop an initial indication of risk. The priority list in descending order was:

- To protect human health.
- To protect controlled waters.
- To protect designated eco systems.
- To prevent damage to property and ancient monuments.

3.6.3 Development Control

Since approximately 1997, Bromley has had a policy that any planning applications for sensitive development (such as houses with gardens) on a potentially contaminated site, have planning conditions attached to any permission granted to address potential land contamination. The conditions require an adequate site investigation to characterise any soil contamination present and, where necessary, remediate it through the development process.

It is possible that sites developed before the late 1997 were not subject to the rigorous controls to address land contamination as would be required today.

Since the implementation of the initial Contaminated Land Strategy, from 2002 – 2010 almost 170 sites had remedial works undertaken, with a further 172 planning conditions applied to developments proposed since 2011, These sites have been regulated by way of suites of planning conditions ensuring appropriate investigation and remedial works as sites are developed or re-developed.

The number of sites vary from large sites such as the former Aquilla site in Bickley, land surrounding Orpington Hospital and Langley Waterside (Former Glaxo Welcome Commercial Site) to small developments on previously commercial sites such as petrol garages. The Bromley Local Plan has identified ‘remediation of sites’ as an indicator within its monitoring framework. Metrics on this will be included within the Authority Monitoring Report (AMR), to be published online each year.

The Bromley Local Plan also sets out a number of allocated sites for housing development, including sites that have had previously contaminative uses such as the Gas Holder Site, Homesdale Road/Liddon Road, sites adjacent to railway lines, etc.

The implementation of the contaminated land regime has already and will continue to involve the collection of a large amount of information. The organisation of much historical mapping data is centred on the Council's Geographical Information System (GIS). The London Borough of Bromley employed the British Geological Survey (BGS) to input data on sources, receptors, and pathways onto the GIS to assist in the identification of potentially contaminated land.

3.6.4 Landfill Sites

A list has been compiled of all known sites where material has been deposited in co-ordination with the Environment Agency's records with information researched about each one. There are no active gassing landfill sites in the London Borough of Bromley that are monitored by LBB. There are no active landfill sites used for domestic/municipal waste in the Borough although there are sites that have been used historically for the deposit of materials and substances.

According to records, there are approx. 40 closed waste sites that have been filled. It is believed that most of these sites were created before the 1974 Control of Pollution Act; legislation that improved regulation and control of landfill. Pre-1974 landfill sites were not restricted in the type of fill and their design was less effective against pollution migration. Due to this lack of regulation, it is recognised that there may be an increased potential for gas generating material to have been deposited into these sites. The Authority shall, review and refresh the mapping of identified sites and their risk rating in terms of potentially contaminated land risk.

Part 4 – Bromley's Aims, Objectives & Priorities

4.0 Aims

The aims of this Strategy are to:

- Show the procedure for the identification and remediation of contaminated land within the Borough
- Ensure that all land within the Borough is safe and suitable for its current use

The statutory guidance requires a strategic approach to inspection prioritising sites in order of risk. This risk ranked prioritisation has been carried out within the Borough.

This strategy complies with the overarching objectives of the Government's policy on contaminated land, which are:

- To identify and remove unacceptable risks to human health and the environment
- To ensure that contaminated land is made suitable for its current use, and
- To ensure that the burdens faced by individuals, companies and society are proportionate, manageable, and compatible with the principles of sustainable development

4.1 Identification and Risk Assessment

Inspection of land is based on the risk categories and priority rating. The inspection programme is based on a comprehensive review of planning and environmental information and, if necessary, a site walkover to determine likelihood of significant contaminant linkage based on the government risk categories.

The main objectives of the risk-based approach are to

- Identify the potential risk to human health, protected ecosystems, controlled waters, and the wider environment
- Utilise both council and private resources efficiently and effectively
- Periodically review and update information held by the Authority

4.2 Objectives

The objectives of this inspection strategy are:

- A systematic, risk-based approach to inspection of land potentially affected by contamination.
- To continue the site prioritisation process using specialist software
- Minimise cost to the tax payer by using the planning regime to remediate, via redevelopment or regeneration.

- To remediate in a proportionate manner to ensure suitable for end use.
- To use other environmental protection legislation such as the Environmental Damage (Prevention and Remediation) Regulations 2015, Building Regulations or Environmental Permitting Regulations 2016 to prevent and minimise future contamination of land.

4.3 Assessment of land for which authority may be an "appropriate person"

The London Borough of Bromley owns, or has previously owned, substantial tracts of land across the borough and the London Borough of Bromley recognises the need to set a good example in its own land holdings so will:

- Consider land contamination issues for any land it owns or is considering selling or purchasing
- Authority owned sites within 250 metres of a known potential source of contamination are informed to Property Procurement.

4.4 Internal Management of the Regime

Officers from London Borough of Bromley's Environment and Public Protection Division have identified and are dealing with land affected by contaminated in the Borough through the planning regime.

Contaminated land is a corporate issue for London Borough of Bromley. Liaison between Services that have an interest in potentially contaminated sites occurs ad-hoc as the sites come up for development sale or purchase.

A GIS layer of Authority owned land has been developed. This information will be shared with relevant Council departments including, Housing and Property Services, Environmental Services, Planning and Building Control and Legal Services and a collaborative approach will be taken when considering any land that could be contaminated.

4.5 Resource Availability

The Government previously provided funding for local authorities through the Contaminated Land Capital Projects Programme (CLCPP). This funded intrusive site investigation to determine whether a site is contaminated, to inform how it should be remediated. In 2010 the CLCPP was passed to the Environment Agency and in 2017 the programme was closed. Grant monies to assist local authorities in carrying out their Part 2A responsibilities are no longer available.

Voluntary remediation and the encouragement of brownfield site development are the embedded key routes to the remediation of contaminated land.

Part 5 – Actions

5.0 Contaminated Land Prevention Actions

This Strategy endorses the 'polluter pays' principle and, where possible, places the onus on the polluter to remediate any environmental damage. Use of the contaminated land legislation is a last resort. As the London Borough of Bromley, currently has no Part 2A sites, the main method of prevention and remediation of land contamination is via the planning regime.

5.1 Prevention of Future Land Contamination

The creation of newly contaminated land could occur due to a pollution incident, or unforeseen contamination coming to light. Such incidents are investigated by the relevant agencies as and when they occur. Outcomes from any incident will be noted by the Authority, disseminated to relevant service areas or landowners, and considered when making future decisions regarding the land.

Any new sites that come to light will be prioritised for assessment.

5.1.1 Complaint/Pollution Incident Investigation & Prevention

There are laws in place to regulate industrial processes. These place responsibility on the company in charge of the polluting process to prevent land contamination. These powers are available to minimise the risk of pollution incidents from industry, particularly from industrial processes and waste storage, handling, and disposal sites. The Environmental Permitting (England Wales) Regulations 2016 (as amended) place an obligation on large industries in the event of the process ceasing; to submit surrender documents that provide evidence that the land is the same quality as found prior to the commencement of their process.

Methods of prevention can be achieved via the following processes and legal requirements:

- Development Control consultation process
- National, regional, and local planning policies
- Integrated Pollution Prevention and Control (IPPC)
- Industrial Emissions Directive (2010/75/EU).
- European Commission Guidance concerning baseline reports under Article 22(2) of the Industrial Emissions Directive
- Landfill (England and Wales) Regulations 2002
- Environment Agency Liaison
- Environmental Protection Act 1990
- Water Resources Act 1991
- Environmental Damage (Protection and Remediation) (England) Regulations 2016 and as amended 2018
- Building Regulations

- Communication and consultation between relevant council functions and governmental agencies.

5.1.2 Environmental Permitting Regulations

Some facilities could harm the environment or human health unless they are controlled. The Environmental Permitting Regime requires operators to obtain permits for some facilities, to register others as exempt and provides for ongoing supervision by regulators. The aims of the regime are to:

- Protect the environment so that statutory and Government policy environmental targets and outcomes are achieved.
- Deliver permits, compliance with permits and related environmental targets effectively and efficiently
- Encourage regulators to promote best practice in operations
- Continue to fully implement relevant European pollution control legislation

5.1.3 Building Regulations

The Building Regulations set the construction standards that buildings must meet. They cover the health and safety standards for the construction of all types of buildings including new build, extensions, internal alterations, underpinning, cavity wall insulation, etc**.** These regulations provide another tool to ensure adequate internal protection of buildings against mine gas or landfill gas.

5.1.4 Environmental Damage Regulations

The Environmental Damage (Prevention and Remediation) Regulations came into force in England on 1 March 2009 and were updated and amended in 2015 by The Environmental Damage (Prevention and Remediation) (England) Regulations 2015 and Environmental Damage (Prevention and Remediation) (England) (Amendment) Regulations 2015. The Regulations are based on the 'polluter pays principle' so those responsible prevent and remedy environmental damage, rather than the taxpayer, and are only applicable to commercial concerns.

5.2 Review of Prioritisation & Inspection Programme

The Authority shall, over the period of this strategy, review and refresh the mapping of identified sites and risk rating to ensure that it remains accurate in terms of contaminated land risk.

5.3 Contaminated Land & Development Control

Planning policies and validation systems ensure that any proposed development for any plot is made suitable for its new use. In addition to the Pollution Control Team being a consultee, the Coal Authority and the Environment Agency are statutory consultees and will make recommendations and propose conditions based on the

information provided and the proposed end use. A summary of a site contamination assessment is detailed in Appendix 3.

5.3.1 The National Planning Policy Framework

The National Planning Policy Framework 2021 (NPPF) identifies contaminated land as a material consideration in planning decisions. Developments must be sustainable regarding human health and the environment. The planning regime encourages the effective re-use of brownfield land, provided it has not become of high environmental or biodiversity value. As such, the impact of disturbing and re-developing any land that is potentially contaminated must be considered in the round, as is the case in the determination of all planning applications.

Sections 174, 183 and 184 of the NPPF set out the position on contaminated land as follows:

- Section 174(e) and (f) indicates planning policies and decisions should contribute to and enhance the natural and local environment by preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution or land instability and by remediating and mitigating where appropriate.
- Section 183 indicates planning policies and decisions should ensure that:
  a) A site is suitable for its proposed use taking account of ground conditions and any risks arising from land instability and contamination. This includes risks arising from natural hazards or former activities, such as mining, and any proposals for mitigation, including land remediation (as well as potential impacts on the natural environment arising from that remediation)
  b) After remediation, as a minimum, land should not be capable of being determined as contaminated land under Part 2A of the Environmental Protection Act 1990; and
  c) Adequate site investigation information, prepared by a competent person, is available to inform these assessments.
- Section 184 indicates that, where a site is affected by contamination or land stability issues, the responsibility to remedy rests with the developer and/or landowner.

5.3.2 The Bromley Local Plan 2019

The London Borough of Bromley adopted its local plan in January 2019 and sets out the Authority's position on contamination under Policy 118:

Where the development of contaminated land, or land suspected of being contaminated, is proposed, details of site investigations and remedial action should be submitted.

Applicants are required to submit, for approval:

- A **desk study** before starting investigations on site
- A full **site investigation** including relevant sampling and analysis to identify pollutants, risks, and a remediation strategy

- A **remediation strategy**
- A **closure report** on completion of works – Land should be remediated to a standard such that there is no appreciable risk to end users or other receptors once the development is complete

Where the future users or occupiers of a development could be affected by land contamination or stability issues, or, where contamination may present a risk to the water environment, proposals must be accompanied by a report that:

a) Shows investigations have been carried out to assess the nature and extent of contamination or stability issues and the possible effect they may have on the development and its future users, biodiversity, the natural and built environment and

b) Sets out detailed measures to allow the development to go ahead safely and without adverse effect, including, as appropriate:
   i Removing the contamination.
   ii Treating the contamination.
   iii Protecting and/or separating the development from the effects of the contamination.
   iv Validation of mitigation measures

Where measures are needed to allow the development to go ahead safely and without adverse effect, these will be required as a condition of any planning permission. The Council's PC23 condition sets out the following:

No part of the development hereby permitted shall be commenced (including demolition of existing buildings and structures, except where prior written agreement with the Council for site investigation enabling works has been received) prior to a contaminated land assessment and associated remedial strategy, together with a timetable of works, being submitted to and approved in writing by the Local Planning Authority.

a) The contaminated land assessment shall include a desk study to be submitted to the Local Planning Authority for approval in writing. The desk study shall detail the history of the sites uses and propose a site investigation strategy based on the relevant information discovered by the desk study. The strategy shall be approved in writing by the Local Planning Authority prior to investigations commencing on site.

b) The site investigation, including relevant soil, soil gas, surface water and groundwater sampling, shall be approved in writing by the Local Planning Authority.

c) A site investigation report detailing all investigative works and sampling on site, together with the results of analysis, risk assessment to any receptors, a proposed remediation strategy and a quality assurance scheme regarding implementation of remedial works, and no remediation works shall commence on site prior to approval of these matters in writing by the Authority. The works shall be of such a nature so as to render harmless the identified contamination given the proposed end-use of the site and surrounding environment.

d) The approved remediation works shall be carried out in full on site in accordance with the approved quality assurance scheme to demonstrate compliance with the proposed methodology and best practise guidance. If during any works contamination is encountered which has not previously been identified, then the additional contamination shall be fully assessed, and an appropriate remediation scheme submitted to the Authority for approval in writing by it or on its behalf.

e) Upon completion of the works, a closure report shall be submitted to and approved in writing by the Authority. The closure report shall include details of the remediation works carried out, (including of waste materials removed from the site), the quality assurance certificates and details of post-remediation sampling.

f) The contaminated land assessment, site investigation (including report), remediation works, and closure report shall all be carried out by contractor(s) approved in writing by the Local Planning Authority.

The developer must therefore provide sufficient and appropriate information to allow the consultee to make an informed decision. Pre-planning advice on contaminated land issues are provided on the Environmental Health pages of the Authority's website.

Table 1 overleaf summarises the interactions between the two policy mechanisms for the management of contaminated land in the UK.

Part 2A	**Planning**
• Takes a proactive approach	• Takes a reactive approach
• Considers all sites (particularly sites without potential for redevelopment)	• Only considers sites that are being redeveloped
• Identifies "Contaminated Land" using the legal definition	• Seeks to ensure land cannot be determined as "Contaminated Land" in the future
• Only considers the current use of the site	• Considers the future use of the site and the development phase
• Responsibility lies with the council to demonstrate that significant possibility of significant harm exists. The starting point is that the land is not contaminated, and it must be proven that it is.	• Responsibility lies with the developer to demonstrate that significant harm is unlikely, and the site is suitable for use. The starting point is that the land may be contaminated, and it must be proven that it isn't.

Source: LQM

Table 1. Part 2A and Planning Process

5.4 Determination of Contaminated Land

Once land has been determined as contaminated land as defined under the Act, the Authority will serve a Determination Notice on the appropriate persons. The Determination Notice will be placed upon a Public Register and will include information on the decision process and as a minimum will include the following:

- An outline of the contaminated land site/area on a plan.
- A summary as to why the Authority considers Section 1 of the Contaminated Land Statutory Guidance (April 2012) has been met.
- Risk summaries, explaining each contaminant linkage risk, its uncertainty, the timescale over which the risk becomes manifest, a conceptual site model, photographs, plans, cross sections, tables, and any other information that shows how the Determination decision was made.

5.5 Service of Remediation Notices

If a site has been determined as being contaminated under Part 2A, the Authority will issue a Remediation Notice.

The Remediation Notice will be served following a 3-month consultation period which commences at the serving of a Determination Notice. Prior to determination, the Authority will issue a risk summary explaining why the land is considered contaminated and briefly describe the remediation required.

If, following consultation with the appropriate persons, Voluntary Remediation cannot be agreed or additional information that would require a review of the Determination Notice has not been provided, the lead regulator for Part 2A will issue a Remediation Notice to the appropriate person. If Voluntary Remediation is agreed the 'Appropriate Person' shall issue a Remediation Statement to the lead regulator. The identification of an Appropriate Person would follow the criteria set down in the current guidance (April 2012).

When issuing a Remediation Notice the Authority will decide the Remediation Strategy. The enforcing authority may consult relevant technical documents (e.g., produced by the Environment Agency or other professional and technical organisations) and may also act on the advice of a suitably qualified experienced practitioner.

5.6 Voluntary Action

The Authority will seek to minimise unnecessary burdens on the taxpayer, businesses, and individuals. The Authority will encourage voluntary action to deal with land contamination issues. The level of remediation must be proportionate to potential exposure and harm caused by the contaminant. This risk will be influenced by its current end use (if being developed) and potential exposure to contaminants. A Risk Statement would be issued by the Authority to the Appropriate Person(s). This statement would identify contaminant risk, the uncertainties of risk, and its effect with time as well as providing methods to remediate.

It is important that those responsible for causing land to be contaminated understand the impacts a contaminant linkage will have. The Authority encourages voluntary remediation and will support those responsible for causing a Contaminant Linkage in recognising the potential risk and harm that may result.

Appendix 1 – Legislation & Guidance

Statutory Guidance

1. Environmental Protection Act 1990 Part I – Integrated Pollution Control
2. Environmental Protection Act 1990 Part II – Waste Management License
3. Environmental Protection Act 1990 Part IIA – Contaminated Land Statutory Guidance 2012
4. Environmental Protection Act 1990 Part III – Statutory Nuisance
5. Environment Act 1995 - Section 57
6. Contaminated Land (England) Regulations 2006
7. Contaminated Land (England) Regulations 2006 as amended 2012
8. Pollution Prevention and Control (England and Wales) Amendment) (No 2) Regulations 2003
9. The Water Resources Act 1991 (Amendment) (England and Wales) Regulations 2009
10. The Environmental Damage (Prevention and Remediation) Regulations 2009

Non-Statutory Guidance

1. BS 10175:2011+a2:2017Code of Practice for the Investigation of Potentially Contaminated Sites
2. BS 5930:1999+A2:2010 Code of practice for site investigation Land contamination: risk managements
3. Land contamination: risk managements
4. Babtie (2001): Identification, Prioritisation and Risk Ranking of Potentially Contaminated Land in North Tyneside Methodology
5. British Geological Survey and The Environment Agency (2000): Technical Report WE/99/14: Some Guidance on the Use of Digital Environmental Data.
6. CIRIA (1995): Remedial Treatment for Contaminated Land Vol III; Site Investigation and Assessment.
7. DoE May (1991) “Public Registers of Land Which May Be Contaminated”
8. DoE (1994): CLR No 1 Vol One and Two. ” A Framework For Assessing The Impact of Contaminated land on Groundwater and Surface water.
9. DoE (1994) CLR No 2 Vol One and Two: “Guidance on Preliminary Site Inspection of Contaminated Land
10. DoE (1994) CLR No 3: Documentary Research on Industrial Research
11. Doe (1994) CLR No 4: “Sampling Strategies for Contaminated Land”
12. DoE (1994) CLR No 5 “Information Systems for Land Contamination”
13. DoE (1994) CLR No 6 “Prioritisation and Categorisation Procedure for Sites which may be Contaminated.
14. DoE Industry Profiles (1995 and 1996)15 DoE May 1991 “Public Registers of Land Which May Be Contaminated”
15. Environment Agency (May 2001): Contaminated Land Inspection Strategies: Technical Advice For Local Authorities
16. Environment Agency (2006): Remedial Targets Methodology: Hydrogeological Risk Assessment for Land Contamination
17. Environment Agency (2001): Land Contamination: Technical Guidance on

Special Sites: Petroleum Refineries. Research and Development Technical Report Ref P5-042/TR/05
18. The Environment Agency's approach to groundwater protection February 2018 Version 1. 219. Environment Agency (2001): Technical Aspects of Site Investigation Research and Development Technical Report P5-065/TR.
19. Environment Agency (2001): Secondary Model Procedure for the Development of Appropriate Soil Sampling Strategies for Land Contamination. Technical Report Ref P5-066/TR
20. Environment Agency and Local Government Association: Land Contamination Protocol.
21. Protecting our Water, Soil and Air A Code of Good Agricultural Practice for farmers, growers, and land managers 2009
22. Environment Agency and DEFRA - Groundwater protection: Groundwater protection guides covering requirements, permissions, risk assessments and controls (previously covered in GP3). 201729. SNIFFER (1999): Communicating Understanding of Contaminated Land Risks.
23. The New Dutch Intervention Values for Soil Remediation
24. The Kelly Indices (Formally GLC) Guidelines for Contaminated Soils

Appendix 2 – Risk Categories, Receptors & Harm

Summary of Risk Categories

Cat.	Human Health	Controlled Waters
1	The significant possibility of significant harm exists where there is an unacceptably high probability, supported by robust science-based evidence, that significant harm would occur if no action is taken to stop it. Significant harm may already have been caused.	There is a strong and compelling case for considering that a significant possibility of significant pollution of controlled waters exists and that it is likely that high impact pollution would occur if nothing were done to stop it. Significant harm may already have been caused.
2	The land poses a significant possibility of significant harm, may include land where there is little or no direct evidence that similar land, situations, or levels of exposure have caused harm before, but nonetheless the authority considers based on the available evidence, including expert opinion, that there is a strong case for acting under Part 2A on a precautionary basis.	Based on the available scientific evidence and expert opinion, the risks posed by the land are of sufficient concern that the land should be considered to pose a significant possibility of significant pollution of controlled waters on a precautionary basis, and where there is a relatively low likelihood that the most serious types of significant pollution might occur.
3	The legal test for significant possibility of significant harm is not met. This will include land where the risks are not low, but nonetheless the authority considers that regulatory intervention under Part 2A is not warranted	The risks are such that it is very unlikely that serious pollution would occur; or where there is a low likelihood that less serious types of significant pollution might occur.
4	There is no risk or that the level of risk posed is low. There are only normal levels of contaminants in soil or contaminant levels do not exceed relevant generic assessment criteria. Estimated levels of exposure to contaminants in soil are likely to form only a small proportion of what a receptor might be exposed to anyway through other sources of environmental exposure.	There is no risk, or that the level of risk posed is low, e.g., no contaminant linkage has been established in which controlled waters are the receptor in the linkage; or the water pollution is like that which might be caused by “background” contamination.

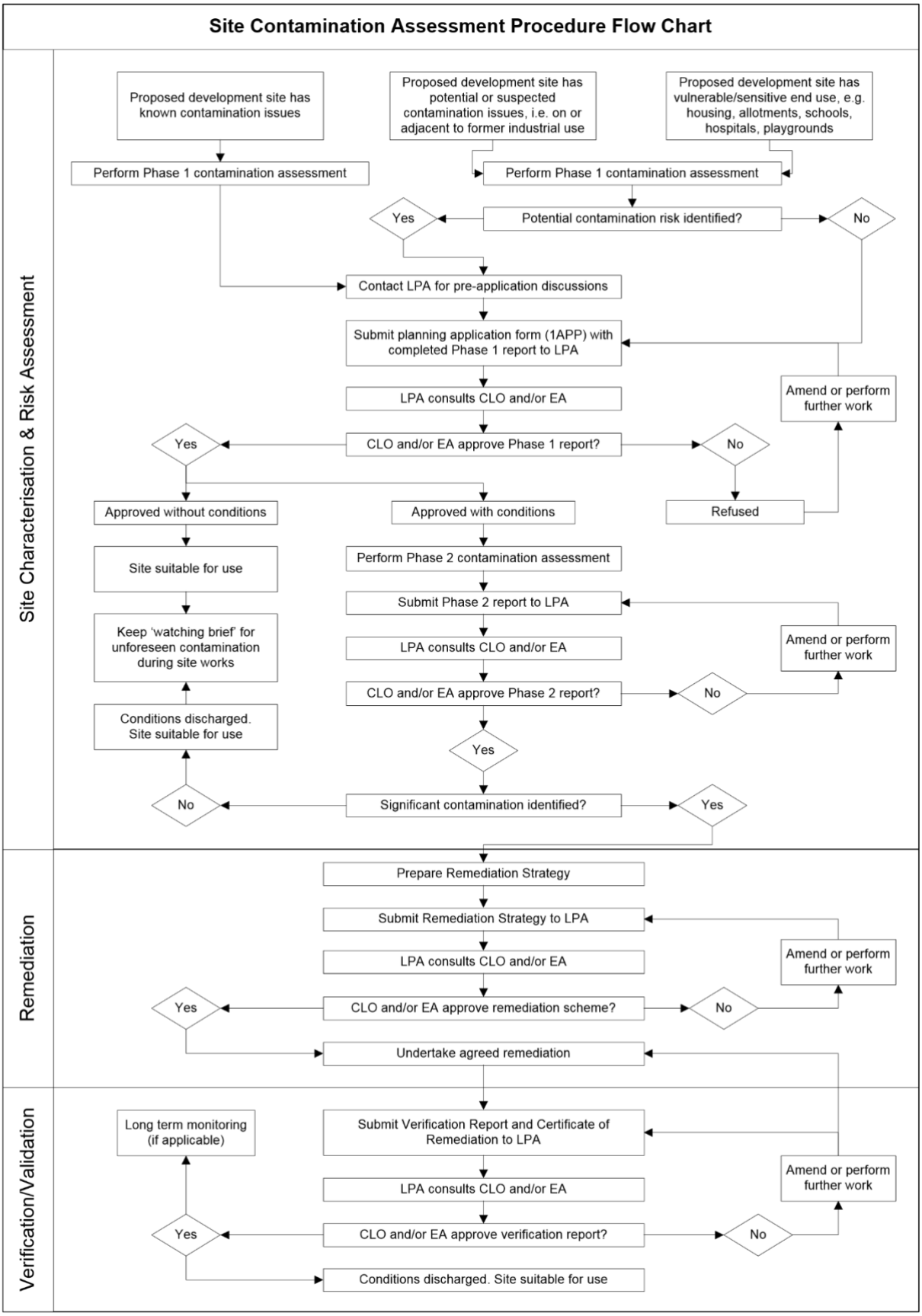
These Risk Categories aid in the identification of high priority sites under Part 2A.

Receptors and harm

Relevant types of receptor	Significant harm	Significant possibility of significant harm
Any ecological system, or living organism forming part of such a system, within a location which is: • a site of special scientific interest (under section 28 of the Wildlife and Countryside Act 1981) • a national nature reserve (under s.35 of the 1981 Act) • a marine nature reserve (under s.36 of the 1981 Act) • an area of special protection for birds (under s.3 of the 1981 Act) • a "European site" within the meaning of regulation 8 of the Conservation of Habitats and Species Regulations 2010 • any habitat or site afforded policy protection under paragraph 6 of Planning Policy Statement (PPS 9) on nature conservation (i.e., candidate Special Areas of Conservation, potential Special Protection Areas and listed Ramsar sites); or • any nature reserve established under 21 of the National Parks and Access to the Countryside Act 1949.	The following types of harm should be significant harm: • harm which results in an irreversible adverse change, or in some other substantial adverse change, in the functioning of the ecological system within any substantial part of that location; or • harm which significantly affects any species of special interest within that location, and which endangers the long-term maintenance of the population of that species at that location. In the case of European sites, harm should also be significant harm if it endangers the favorable conservation status of natural habitats at such locations or species typically found there. In deciding what constitutes such harm, the local authority should have regard to the advice of Natural England and to the requirements of the Conservation of Habitats and Species Regulations 2010.	Conditions would exist for considering that a significant possibility of significant harm exists to a relevant ecological receptor where the local authority considers that: • significant harm of that description is more likely than not to result from the contaminant linkage in question; or • there is a reasonable possibility of significant harm of that description being caused, and if that harm were to occur, it would result in such a degree of damage to features of special interest at the location in question that they would be beyond any practicable possibility of restoration. Any assessment made for these purposes should consider relevant information for that type of contaminant linkage, particularly in relation to the ecotoxicological effects of the contaminant.

Relevant types of receptor	Significant harm	Significant possibility of significant harm
Property in the form of buildings. For this purpose, “building” means any structure or erection, and any part of a building including any part below ground level but does not include plant or machinery comprised in a building, or buried services such as sewers, water pipes or electricity cables.	Structural failure, substantial damage, or substantial interference with any right of occupation. The local authority should regard substantial damage or substantial interference as occurring when any part of the building ceases to be capable of being used for the purpose for which it is or was intended. In the case of a scheduled Ancient Monument, substantial damage should also be regarded as occurring when the damage significantly impairs the historic, architectural, traditional, artistic, or archaeological interest by reason of which the monument was scheduled. In this Chapter, this description of significant harm is referred to as a “building effect”.	Conditions would exist for considering that a significant possibility of significant harm exists to the relevant types of receptor where the local authority considers that significant harm is more likely than not to result from the contaminant linkage in question during the expected economic life of the building (or in the case of a scheduled Ancient Monument the foreseeable future), considering relevant information for that type of contaminant linkage.

Appendix 3 – Site Contamination Assessment



Appendix 4 – Glossary

Apportionment	The division of the costs of remediation between one or more appropriate persons.
Appropriate persons	Any person who must bear responsibility for remediation of a site. This term is defined in section 78F.
Attribution	The process of apportionment between liability groups.
Charging Notice	A notice placing legal charge on land determined as contaminated by an enforcing authority to enable the authority to recover from the appropriate person any reasonable cost incurred by the authority in carrying out remediation.
Class A person	A person who is an appropriate person because he caused or knowingly permitted a pollutant to be in, on or under the land.
Class B person	A person who in an appropriate person because they are the owner or occupier of contaminated land where no Class A person can be found.
Contaminant	A substance in, on or under land which has the potential to cause harm or pollution of controlled water.
Contaminated land	Any land that is 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.
Contaminant Linkage	The relationship between a contaminant, a pathway, and a receptor.
Controlled Waters	This is defined by the Water Resources Act 1991 (Amendment) (England and Wales) Regulations 2009 including territorial and coastal waters, inland fresh water, and ground waters.

Current use	A use which is being, or is likely to be made of the land, and which is consistent with any existing planning permission. This can include permitted temporary use and future uses which will not require amended, or new, planning permission.
Enforcing Authority	The authority that enforces the legislation for a contaminated site. For a special site this is the Environment Agency. For all other contaminated sites, it is the local authority.
GIS	A Geographical Information System. This is computer software that links features on a map to information about them.
Groundwater	The mass of water in the ground below the water table (saturated zone) occupying the total pore space in the rock.
Harm	This is harm to the health of a living organism, or interference with an ecological system of which it forms part. This includes harm to property.
Intrusive Investigations	A site investigation which goes beyond a simple visual inspection, limited sampling, or desk-top study.
Owner	"A person (other than a mortgagee not in possession) who, whether in his own right or as trustee for any other person, is entitled to receive the rack rent of the land, or where the land is not let at a rack rent, would be so entitled if it were so let."
Part 2A	Part 2A of the Environmental Protection Act 1990.
Pathway	The means by which a receptor is being, or could be, exposed to, or affected by a contaminant.
Pollutant	A contaminant which forms part of a contaminant linkage.
Pollution of controlled waters	The entry of any poisonous, noxious, or polluting matter or any solid waste matter into controlled waters.

Receptor	A living organism, a group of living organisms, an ecological system or a piece of property which is in Table A, Chapter A of the guidance and is being, or could be, harmed by a contaminant. Or controlled waters which are being, or could be, polluted by a contaminant.
Remediation	This includes the assessment of condition of land; the undertaking of actions to prevent, minimise or mitigate the effects of harm; and follow up inspections.
Remediation scheme	A complete set of remediation actions to be carried out with respect to the land or waters.
Remediation statement	A statement prepared and published by the responsible person detailing remediation actions and the timescale within which they have been or are expected to be carried out.
Risk	The combination of: (a) the probability, or frequency, of occurrence of a hazard; and (b) the magnitude (including the seriousness) of the consequences.
Risk Assessment	This involves determining the significance of the risk for those affected
Risk communication	The effective communication of all aspects of a particular risk, and the assessment of this risk, to those who are concerned with it.
Risk management	The process of implementing decisions about accepting, controlling, or altering risks
Significant harm	Harm which is determined to be significant in accordance with Chapter A of the statutory guidance.
Significant possibility of significant harm	A possibility of significant harm being caused and is deemed to be significant in accordance with Chapter A of the statutory guidance
Source protection zone	An area around a borehole defined by the Environment Agency according to the travel times of pollutants in the groundwater to the borehole

Special site	A contaminated site that meets the definition in sections 78C (7) or 78D (6) of Part IIA of the Environmental Protection Act. The Environment Agency are the enforcing authority for a special site
SSSI	Site of Special Scientific Interest
Suitable for Use	This describes the requirement for the use of a piece of land to be suitable for the level of contaminants present within the land. An example of this is that a higher level of contaminants is acceptable in, on or under the land if the land is to be used a hardstanding car park, than if it were to be used for an area of garden.