London Borough of Hackney Draft Contaminated Land Inspection Strategy 2022-2030



Foreword

To follow.

If you have any comments relating to this Draft Contaminated Land Strategy, please send them to:

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Table 7: Broad Land use statistics for Hackney

1.0 Introduction

Hackney is an inner London Borough. It is the third most densely populated borough in the UK¹ but it also contains a range of parks and green spaces. In recent years, heavy industry has been absent from the borough but, historically, it would have been the location of industries that would often use materials such as metals, petrols and chemicals to produce goods. There is, therefore, the potential for a legacy of contamination to have been left in the space once occupied by industrial factories and workshops.

1.1 What is contaminated land

The definition of contaminated land is set out within Part 2A of the Environmental Protection Act 1990², namely:

'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 is being caused, or there is significant possibility of such pollution being caused.

Significant possibility of significant harm is also known as (SPOSH) and further definitions of harm and the pollution of controlled waters are given within the legislation and statutory guidance.

1.2 Regulatory Context

In order to address contaminated land from historical activities across the country, the contaminated land regime is set out in Part 2A of the Environment Protection Act 1990, 'Part 2A', which was introduced by section 57 of the Environment Act 1995 and came into force in April 2000.

The overarching objectives of the Government's policy on contaminated land and the Part 2A regime are:

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

¹ GLA, Land area and population density, 2018

² Environmental Protection Act 1990: Part 2A

In accordance with this legislation, Hackney Council, 'The Council', has a statutory duty under Part 2A to identify and inspect land within its boundaries that it suspects contamination is, or may be, causing unacceptable risks to human health, property or the wider environment.

The Regulations and official Statutory Guidance that accompanied the Environment Protection Act 1990, including the Contaminated Land (England) Regulations 2006, have gone through various iterations over the years, with the current legislation and guidance being the Contaminated Land (England) (Amendment) Regulations 2012³ and the Contaminated Land Statutory Guidance for England 2012.⁴

In order to comply with the regulations, the Council is required to develop, implement and periodically review a risk based inspection strategy outlining how contamination will be dealt with. Hackney's original strategy was published in 2001 and since then, we have been working on implementing this strategy. The 2022-2030 strategy will reflect the Borough's current position on contaminated land and will also take account of the statutory contaminated land guidance which has been issued by DEFRA since our first strategy was published.

1.3 Role of the Environment Agency

The Environment Agency (EA) also plays a major role in supporting the Council with contaminated land matters and assists with:

- Identifying contaminated land by providing information and site specific guidance;
- Providing advice in relation to pollution of controlled waters;
- Inspecting potential Special Sites on behalf of the Local Authority;
- Formalising designation of Special Sites;
- Publishing of periodic reports concerning the state of national contaminated land.

³ The Contaminated Land Regulations (England) 2012

⁴ <u>Contaminated Land Statutory Guidance 2012</u>

2.0 Vision, Goals and Objectives of the Strategy

Our vision, goals and objectives of the strategy are given below with a more detailed outline of all the objectives provided in Section 8.

Our Vision:

• By gaining a complete picture of historical and potential contamination in the borough, our vision is to make Hackney a safe place for all to visit and live; whether this is building a new home or regenerating old industrial land, we will continue to lead by example by ensuring that no harm is caused by land contamination.

Our Goals:

- We will continue to protect human health associated with the most sensitive situations;
- We will continue to protect water resources, the natural and built environment and property;
- We will identify situations where contaminated land has not been addressed during the planning process and identify background levels in the borough to ensure that land is not inappropriately determined as contaminated land.

Our Priority Objectives:

To achieve the vision and goals of the strategy the following key priority objectives are outlined:

- 1. Develop the Council's contaminated land planning conditions to fall in line with the EA's new Land Contamination Risk Management Framework, and in accordance with the tests set out in National Planning Practice Guidance.
- 2. Create a new public-facing GIS mapping software that can be used by prospective home buyers and developers. This will be continually developed and account for all sites in the borough that have now been remediated through the planning process.
- 3. All sites identified as being of potential concern will be inspected within a reasonable timescale.
- 4. Complete the scanning of available historical site investigation, remediation and verification reporting and correspondence.
- 5. Recover documents temporarily lost as a result of a cyber attack in 2020.

2.1 Links to key strategies

The broad aims of the Draft Contaminated Land Strategy are shared by other local, regional and national strategies and legislation. Strategies and policies that influence the use, or result in the disturbance of land and water need to consider the potential

risks associated with contaminated land. Other than the contaminated land regime and this strategy, the key strategies and pieces of legislation that relate to contaminated land are set out in the following table.

Statutory Regimes	Strategies
 Pollution Prevention and Control Act 1999 Waste Management Regulations 2006 Water Resources Act 1991 Food Safety Act 1990 Health and Safety at Work Act 1974 Environmental Damage Regulations 2009 Building Regulations 2010 	 Rebuilding a Greener Hackney Hackney Local Implementation Plan 2019-2022 Green Infrastructure Plan Local Nature Recovery Plan Net Zero Energy Strategy Joint Strategic Needs Assessment National Planning Policy Framework 2021 Local Plan (LP33)

Table 1: Links to strategies

The updated Contaminated Land Strategy links to several other Council strategies that fall under the umbrella of Rebuilding a Greener Hackney. The contaminated land regime applies to contamination which occurred on or before March 2009. For land contaminated after this date, the Environmental Damage Regulations 2009 apply instead. Environmental damage includes damage to land, surface or groundwater and protected species or natural habitats, and Sites of Special Scientific Interest.

The Mayor of Hackney and the Council's Corporate team have set out clear Corporate Priorities to which this strategy contributes. These include "Reducing Harm", "Enabling Community Well-being and Tackling Health Inequalities" and through remediating brownfield land in Hackney, this strategy contributes to the Corporate Priority of a "A Lasting solution to the Housing Crisis".

The Council will ensure that key strategies, Corporate Priorities and policies that relate to land and development take account of the objectives for dealing with contaminated land. Officers involved in contaminated land related work will work together and coordinate their efforts. The Contaminated Land Officer will be consulted in relation to any contaminated land, or development taking place on land where contamination may be present, in order to ensure conformity with this strategy. The use of the planning and building control systems to address contaminated land is discussed in Hackney's newly adopted Local Plan.⁵

In addition, the Council will work with both statutory and non-statutory consultees including the EA, UK Health Security Agency, English Nature and English Heritage, who have responsibilities and expertise in specialist areas of contaminated land.

⁵ <u>https://hackney.gov.uk/lp33</u>

2.2 Progress with the previous Contaminated Land Strategy

A number of large-scale pieces of work have been successfully completed since the first Contaminated Land Strategy was published in 2001. These include the:

- Identification of sites of potential concern based on information from historical mapping;
- Prioritisation of 175 areas of the Borough for further inspection based on grouping of sites of potential concern and site walkovers;
- Creation of a detailed public-facing GIS system which developers and agents can use to identify sites of potential concern;
- Review of radioactive uses across the borough;
- Surveys of schools and allotments in the borough including 5 determinations as contaminated land;
- Investigation of a former chemical works developed by housing;
- Large investigation of a former gas works site developed by housing.

Over the past decade, resources have been invested to address contaminated land through the Planning process. This has helped ensure safe development at many sites, which significantly reduces the possibility of future problems arising from contaminated land.

In October 2020, the Council suffered a cyber attack which resulted in temporary loss of planning files pre-2019 and loss of the current public-facing GIS system. Therefore, this Strategy includes an objective to recover past files and to bring all pre-2019 files back online.

3.0 Contaminated Land and the Planning Process

The majority of contaminated land in Hackney is now addressed through the Planning process with the National Planning Policy Framework (NPFF) setting out the Government's planning policies for England and how they are expected to be applied. It states that:

- "Where a site is affected by contamination or land stability issues, responsibility for securing a safe development rests with the developer and/or landowner"
- "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."

The Council works with developers and their agents to ensure that contaminated land issues are properly dealt with during works. Over the past decade, systems have been developed by the Land Water Air team to ensure that potential areas of contaminated land are appropriately investigated, remediated and determined suitable for use during the planning process. In particular:

- Ensuring all planning applications meet the correct validation requirements by following the procedures outlined in the EA's Land Contamination Risk Management framework;
- A Google Drive filing system has been established so that contaminated land planning information is kept organised in one place;
- All information is now received and stored digitally;
- All relevant planning applications are now sent to the CLO and recommendations are made directly to the planning department;
- Information and guidance has been made freely available on the Council's website.

3.1 Approach to contaminated land assessment

Whilst Part 2A addresses historical contamination in Hackney, the majority of contamination across the borough and most of the UK is now dealt with through the planning process. The broad concept of land assessment is similar to Part 2A, however, the procedure is managed through a phased regime.

Since the inception of the EA's Model Procedures for the management of land contamination, otherwise known as CLR11, the Council has been working under this technical framework. However, as of October 2020 this has now been archived and replaced by the EA's Land Contamination Risk Management framework. This risk-based approach follows a three stage process broken down into tiers and steps.

Stage 1: Risk Assessment

There is a tiered approach to risk assessment. The three tiers are:

- 1. Preliminary risk assessment.
- 2. Generic quantitative risk assessment.
- 3. Detailed quantitative risk assessment.

Stage 2: Options Appraisal

There are three steps to follow.

- 1. Identify feasible remediation options.
- 2. Do a detailed evaluation of options.
- 3. Select the final remediation option.

Stage 3: Remediation and Verification

There are four steps to follow.

- 1. Develop a remediation strategy.
- 2. Remediate.
- 3. Produce a verification report.
- 4. Do long term monitoring and maintenance, if required.

The general concept of this risk-based approach is based upon the source-pathway-receptor model and is utilised both in Part 2A and in development control. This outlines that before the regulator can determine an area as contaminated land, on the basis that significant harm is being caused, or that there is significant possibility of such harm being caused, the regulator must first identify a significant pollutant linkage between the following:

Source

Otherwise known as a contaminant and is a substance which is in, on or under the land and which has the potential to cause significant harm or to cause pollution of controlled waters.

Pathway

One or more routes or means by, or through, which a receptor is either being exposed to, or affected by, a contaminant, or could be so exposed or affected by the contaminant.

Receptor

Is something that could be adversely affected by a contaminant, for example a person, an organism, an ecosystem, property, or controlled waters.

4.0 Key Characteristics of Hackney

The following gives an overview of the key characteristics of Hackney and the most significant factors affecting the prioritisation and inspection of contaminated land in the borough; a more detailed description can be found in Appendix B. It is essential to consider the key characteristics of the borough when setting our vision, aims and objectives. Current and past physical, social and economic characteristics will directly influence the extent, distribution, type and degree of contaminated land encountered.

The characteristics of Hackney that will increase the likelihood of land being contaminated are in table 2 below.

Characteristic	Description	Consequence
Industrial history	About 25% of the borough is associated with a previous industrial or potentially contaminating land use. This includes a wide range of activities that have taken place over a period of about 300 years. Examples of a few potentially significant uses include chemical works, gas works, power stations, scrap yards, engineering works, garages, fuel stations, dry cleaners etc.	Land associated with more significant industries and activities is more likely to be contaminated.
Sensitive land uses	Over half of land in the borough is used for more sensitive uses, including 31% for housing and 25% for green spaces. 40% of the borough's housing stock comprises semi-detached, detached, terraced and converted houses, which are more likely to be accompanied by gardens.	People are more likely to come into contact with potentially contaminated soils in gardens and areas of open space.
Uncertainty over historical records	Historical records are limited and do not capture all uses or occurrences that have taken place on land in the borough. Records of previous industries, unexploded ordnance, illegal activities (such as the burying of wastes) and accidents may no longer exist.	There is a chance of finding contaminated land where no record of any significant previous potentially contaminating use exists.
Phases of development	Sensitive land uses such as housing have seen periods of rapid development and redevelopment at points in history. Most notably these have included development in the late 1800's/early 1900's, pre and post world war II and redevelopment since the 1990's housing boom.	As a result of the significant redevelopment over the years across Hackney, sensitive land uses, such as residential, will have been developed in areas where soil contamination is likely to be found, such as former industrial areas.
Planning system	In the past, contaminated land issues were not addressed to the same standard	Increases the chance of sensitive land, such as

Table 2: Likelihood of characteristics increasing contaminated land

	as today during the planning process. This has resulted in land impacted by contamination being developed for sensitive uses such as schools and housing.	residential, being developed in the same location as potentially contaminating historical land which has yet to be treated.
Water extraction from the chalk aquifer	In the past, many industries and organisations would bore into the chalk aquifer beneath Hackney to obtain water. Most of these historical extractions are now disused. Typically no records are held of how wells and boreholes were decommissioned.	Where a borehole has been drilled and not backfilled there is potential for shallow polluted waters to migrate into the chalk aquifers.

Characteristics of the borough that will increase the likelihood of land becoming contaminated are set out below.

Characteristic	Description	Consequence
Less sensitive land uses	There is significant land in Hackney used for roads, non-residential buildings and railways.	Generally, these land uses pose less risk of being contaminated as there is a reduced risk of contact with any pollutants that may be present.
Impermeable geology	Much of Hackney is underlain by the London Clay and Lambeth Group geological formations. These are impermeable formations which help prevent polluted groundwater from migrating deeper into the group and help reduce pollution migrating to adjacent sites.	Pollution is less likely to migrate over large distances and important water sources, such as the major chalk aquifer beneath Hackney, are less likely to be polluted
Low quality groundwater	Over much of Hackney, the top 5-10 metres of the ground is made up of fill, natural sand and gravel. This superficial layer also contains groundwater and as a result of pollution occurring over hundreds of years much of the groundwater has become polluted and not suitable for use.	Where shallow groundwater is being polluted by contaminated land, except in the most serious cases, land will typically not be determined as contaminated land due to ease at which remediation can take place.
Canalisation and modification of water resources	Most of the waterways, including rivers and canals, in the borough have been lined and canalised and quite often the water level within rivers, canals and reservoirs is above that of the groundwater.	In many cases surface waters are unlikely to be polluted by contaminated land.
Environmental designations	There are no major environmental designations (such as SPA, RAMSA or SSSI) within Hackney. However, to the north east of Hackney (i,e, Walthamstow Marshes and Reservoir) across the	It is highly unlikely that contamination determinations will be made in relation to environmentally designated sites.

Table 3: Likelihood of characteristics reducing contaminated land

	borough boundary there are two sites of special scientific interest.	
Elevated levels of background contamination	Due to historical activities such as the spread of industrial and residential ash onto land, fires, industrial emissions to air and the previous use of leaded petrol; there is elevated lead, ground gas or vapours, polyaromatic hydrocarbons and other chemicals across large areas of the borough. A similar situation exists in urban areas across the UK.	In line with statutory guidance, the Council will not identify land as contaminated where the contamination is at similar levels across the borough or other urban areas of the UK.

These characteristics have been considered when identifying our goals and setting objectives within Section 8.

5.0 Detailed Inspection Process

Statutory guidance outlines that, before a programme of inspection is undertaken, the land under investigation must be subdivided into four categories based on a system of screening. The categories range from 1-4, with Categories 1 and 2 indicating that there is an unacceptably high probability that the land is contaminated under the definition of SPOSH. Categories 3 and 4 indicate the land is not capable of being determined under SPOSH. Full definitions of these categories are available in the statutory guidance.⁶

Under Part 2A, local authorities have a responsibility to inspect their area to identify contaminated land, giving priority to land that is most likely to pose the greatest risk to human health and the environment. The Council's approach to prioritisation and inspection aims to balance the need to deal with the worst areas of contaminated land in the borough, with removing blight from land that is unlikely to be determined as contaminated land.

In this way, expenditure on unnecessary inspection work will be avoided and possible upset and financial loss suffered by those who live and work on potential areas of contaminated land will be minimised. If Council owned land is identified for inspection or remedial work, we will ensure that all work is carried out to the same standard that we expect of private landowners. This includes maintaining an accurate record of works completed which may periodically be used to compare the Council's performance against that of others.

At Hackney, the prioritisation and inspection of land is being achieved through the following seven stage process of investigation and prioritisation. Hackney Council has been working through the different stages and we will continue to do so in line with the new Strategy. Each successive stage of prioritisation requires a greater level of information and is followed by a further stage of prioritisation. This ensures that land that poses the greatest risks to people is dealt with first.

Sites of potential concern that do not comprise contaminated land will be excluded from further stages of inspection with a full explanation. The decision to determine land as contaminated land will be kept under review throughout the inspection process.

Stage 1 - Identification: Potential areas of contaminated land (referred to as 'sites of potential concern' or SPCs) are identified through a desktop review of available historical mapping and other information held on the Council's mapping database.

Stage 2 - Group prioritisation: Sites of potential concern are divided into groups and each group is prioritised based on the most significant situation. The result of the

⁶ <u>Contaminated Land Statutory Guidance 2012</u>

Stage 2 group prioritisation is a list of groups for further inspection which gives priority to land that is most likely to pose the greatest risk to people.

Stage 3 - Group desk study and site walkover: Each group is inspected further to identify sites of potential concern that require further investigation work. The inspection includes a review of available information within the online mapping and a site walkover. This stage includes a scoping exercise to remove sites that are unlikely to result in land being determined as contaminated land.

Stage 4 - SPC Prioritisation: Each site of potential concern, identified as needing further physical investigation, is prioritised to ensure that land that is most likely to pose greatest risks to people is investigated first.

Stage 5 - Preliminary physical site investigation: Initially the Council will undertake a smaller scale investigation to identify whether a site of potential concern is likely to comprise contaminated land. The preliminary physical investigation will ensure that further larger, more costly investigations are only undertaken where they are needed. Where the preliminary physical investigation identifies that further, more detailed, investigation work is needed, the preliminary physical investigation work will be used to support bids for central government grants to undertake work.

Stage 6 - Prioritisation of detailed physical investigation work: Each site of potential concern requiring detailed physical site investigation work will be categorised according to priority to ensure that land most likely to pose the greatest risks to people is investigated first.

Stage 7 - Detailed physical investigation work: A detailed investigation will be completed to identify whether a site of potential concern should be determined as contaminated land.

Stages 1 and 2 have been completed and the Council has started to progress Stage 3 inspections in prioritised order. However, the rate of progress is dependent on the availability of funding and the resources available to focus on planning applications. It is important to note that the Council is unlikely to be able to consider any area of land outside of its broad prioritised border.

If an inspection has been carried out and the land is found to fit within the SPOSH criteria, remediation will most likely need to be undertaken. Section 6 details the parties who may be responsible for remediation which can vary depending on the site in question. Remediation can also take on numerous forms again depending on the site in question. However, once remediation has been completed and reported, the responsible party must also issue a verification document outlining all of the work that has been carried out. This document must contain technical details of the

remediation, evidence the remediation has been carried out successfully and monitoring that shows that the remediation was successful.

Where a site is likely to be a 'special site' the responsibility for investigating and ensuring remediation will fall to the EA and we will request that they undertake the physical investigations on the Council's behalf. Where appropriate the Council will also seek appropriate advice on the technical aspects of contaminated land from external agencies, including:

- EA for water resources and radiation;
- UK Health Security Agency for health related matters and radiation;
- Food Standard Agency for advice on farming;
- Natural England regarding environmental designations;
- English Heritage regarding historic buildings and monuments.

When completing prioritisation and inspection work, the Council will follow internal procedures and best practice guidance. This includes ensuring that all works are carried out in accordance with appropriate Health and Safety legislation and procedures. Further information on progress with the inspection strategy is available from the Council's website.⁷

⁷ <u>https://hackney.gov.uk/the-contaminated-land-regime</u>.

6.0 Determination of Land as Contaminated Land and Remediation

The Council will determine land as contaminated land, and take appropriate remedial action, where urgent remediation is required and where the Council is not convinced that voluntary programmes of investigation and remediation will take place within an appropriate time frame.

Based upon the 'Polluter Pays' principle, the contaminated land regime identifies those who 'caused and knowingly permitted' contamination and recognises that the owners of a site are potentially liable for the cost of remediation. With the following exceptions, the Council will pursue individuals or companies identified as being liable for the cost of remediation in line with statutory guidance:

- Where grant monies are made available by government to complete the remediation;
- If the cost of pursuing those responsible for remediation outweighs the cost of the Council carrying out the remediation itself, unless there is a clear public benefit of pursuing the polluter;
- Where a land charge is placed on a property;
- Where non-commercial owners are able to demonstrate that they are unable to pay for work;
- Where the Council ultimately decides to bear the costs itself.

When determining land as contaminated land and undertaking remediation, appropriate consultation will be made with the agencies and statutory bodies listed in section 4.

Where a site must be investigated, determined as contaminated land or remediated by the Council as a result of the actions or omissions by any department of the Council, the costs will be borne by the Council and the relevant department will be responsible for ensuring that the costs of work are covered.

The process for determining land as contaminated land, deciding who is liable to pay for remediation, ensuring remediation is carried out and, where necessary, serving a remediation notice, is set out within statutory and best practice guidance.⁸

The Council will not determine land as contaminated land where the following applies:

• For development sites, where a contaminated land condition is not attached to the decision notice of the planning application, but the developer cooperates fully by providing an appropriate level of investigation, remediation and verification information in line with Council guidance;

⁸ Environmental Protection Act 1990: Part 2A Contaminated Land Statutory Guidance

- A land owner/occupier, or person that caused the contamination, undertakes an appropriate investigation and cooperates fully by undertaking all necessary remediation and verification work voluntarily in line with best practice guidance;
- An alternative assessment demonstrating that land is not contaminated land is provided and accepted by the Council.



7.0 Communication during the course of investigation

Informing residents and businesses that they are living or working on land that may be, or is, contaminated may result in significant stress and upset. It is therefore essential to communicate effectively with residents and businesses during investigations, determinations and remediation.

For physical site investigation, determinations and remediation, as a minimum, the Council will:

- Write to affected residents and businesses explaining the situation and informing them of what is being done together with estimated timescales;
- Either hold an open day or, wherever possible, meet with residents and businesses individually;
- Be available to discuss any concern over the phone, or wherever possible, in person;
- Keep residents and businesses updated with progress, results and any changes to timescales;
- Not provide information where it may be misleading as a result of being incomplete;
- Provide an explanation where the Council is unable to provide information.

Standard programmes of investigation for single or multiple properties will be agreed with the lead Council Member for Sustainability and the Environment. Where necessary, advice will also be sought from other agencies and statutory bodies. Where remediation is urgent, work may commence before normal consultations are made.

The Council will ensure that contact with residents, businesses and polluters occur in line with legislation and statutory requirements.

8.0 Access and Provision of Information

Environmental information, including contaminated land information, must be stored securely and managed effectively to ensure it is readily available to both officers of the Council and to the public and businesses in line with the Environmental Information Regulations 2004 (EIR).

Most contaminated land information is held by the Land Water Air team across a number of databases and filing systems. This includes:

- Part 2A Information: includes inspection, prioritisation, remediation and verification information associated with the investigation and remediation of sites under the Contaminated Land Strategy;
- **Planning Information:** includes desk study, site investigation, remediation and verification information obtained through the planning system;
- **General Information;** includes other relevant environmental information held by the Council such as historical mapping, permitting information, complaints databases, general knowledge and reporting obtained from other sources

Over the past decade the Council has made significant efforts to make environmental pollution information freely available from the Council's website using web-based mapping and downloads.

To ensure individuals' rights are upheld, the Council will act in accordance with the following data protection legislation, regulations and any future laws that are introduced relating to the protection of privacy and the holding of information on individuals :

- Local Government (Access to Information) Act 1985;
- Environmental Information Regulations 2004;
- Data Protection Act 2018;
- Human Rights Act 1998;
- Freedom of Information Act 2000.

Should a complaint be filed in relation to any Part 2A investigation or Planning procedure it will be dealt with by the appropriate department and personal information will be held following the relevant legislation.

8.1 Contaminated Land Register

The Council is required to keep a register of contaminated land, the details of which are described within the Contaminated Land (England) Regulations 2012. The current register is available to view at the Council offices or at the Council's website.⁹

⁹ Hackney Contaminated Land

The Council will also make the following available on the register, where it doesn't conflict with EIR:

- Details of investigations that have been completed under the contaminated land regime and associated reporting;
- Determinations of land as contaminated land;
- A plan illustrating the area determined as contaminated land.

While the council makes every effort to make environmental information freely available to the public, under certain circumstances, the Council may be unable to provide environmental information. This would include where the provision of information:

- May jeopardise an ongoing programme of investigation, remediation or public liaison where only incomplete information is available;
- Will inappropriately result in another party receiving information before the owner or occupier of a property;
- Is commercially confidential or exempt for reasons of national security.

Objectives of the strategy include future work on allowing improved access to contaminated land information.

9. Detailed Objectives and Targets

The following objectives have been developed to ensure that our vision and goals are met and that the Council meets its statutory objectives and responsibilities whilst continuing to develop capabilities to address contaminated land within the borough. There is no definitive timeline for completion of inspection given by Part 2A. However, where possible, and to provide structure we have indicated start and completion dates for objectives outlined in the objectives matrix.

To achieve the vision and goals of the strategy, the following key policy objectives are outlined:

- 1. Develop the Council's contaminated land planning conditions to fall in line with the EA's new Land Contamination Risk Management Framework.
- 2. Create a new public-facing GIS mapping software that can be used by prospective home buyers and developers. This will be continually developed and account for all sites in the borough that have now been remediated through the planning process
- 3. All sites identified as being of potential concern will be inspected within a reasonable timescale.
- 4. Complete the scanning of available historical site investigation, remediation and verification reporting and correspondence.
- 5. Recovery of documents temporarily lost as a result of the cyber attack.
- 6. Update and refresh of the Council's contaminated land register.
- 7. Complete work on identifying sites that fall under the Environmental Damage Regulations.
- 8. Update of Hackney's internal documents including Information on Hackney's Approach to Dealing with Contaminated Land Under Part 2a of the Environmental Protection Act 1990 and EIR.
- 9. Ensure different departments of the Council will continue to work together to ensure contaminated land issues are dealt with correctly.
- 10. Continued work with the EA, neighbouring boroughs including the London Legacy Development Corporation responsible for the Olympic Legacy and national Contaminated Land Officers groups to ensure we keep abreast of current events and are prepared for future changes.
- 11. Update of the Council's contaminated land webpages to ensure developers and residents are complying with new legislation and make information freely available for all.

12. Systems and contracts to be put in place to ensure that Council has an appropriate level of emergency preparedness and response.

Table 4. Draft Contaminated Land Strategy - Objectives Matrix

	Objective	Responsibility	Cost	Timescale for Implementat ion
1	Develop the Council's contaminated land planning conditions to fall in line with the EA's new Land Contamination Risk Management Framework.	Land Water Air Housing Building Control Planning	Low	2022-2030
2	Create a new public-facing GIS mapping software that can be used by prospective home buyers and developers. This will be continually developed and account for all sites in the borough that have now been remediated through the planning process	Land Water Air GIS Planning	Low	2022
3	All sites identified as being of potential concern will be inspected within a reasonable timescale.	Land Water Air Housing Planning	High	2022- Ongoing
4	Complete the scanning of available historical site investigation, remediation and verification reporting and correspondence.	Land Water Air Planning	Low	2022- 2024
5	Recovery of documents temporarily lost as a result of the cyber attack.	Land Water Air IT Planning	Medium	2022-2025
6	Update and refresh of the Council's contaminated land register.	Land Water Air	Low	2022
7	Complete work on identifying sites that fall under the Environmental Damage Regulations.	Land Water Air Housing	Medium	2022-2025
8	Update of Hackney's internal documents including Information on Hackney's approach to dealing with contaminated land under Part 2A of the Environmental Protection Act 1990 and EIR.	Land Water Air	Low	2022-2023

9	Ensure different departments of the Council will continue to work together to ensure contaminated land issues are dealt with correctly	Land Water Air All	Low	2022- Ongoing
10	Continued work with the EA, neighbouring boroughs including the London Legacy Development Corporation responsible for the Olympic Legacy and national Contaminated Land Officers groups to ensure we keep abreast of current events and are prepared for future changes.	Land Water Air	Low	2022- Ongoing
11	Update of the Council's contaminated land webpages to ensure developers and residents are complying with new legislation and make information freely available for all.	Land Water Air Web team	Low	2022
12	Systems and contracts to be put in place to ensure that Council has an appropriate level of emergency preparedness and response.	Land Water Air All	Low	2022-2023

Appendix A

Consultation (To be completed post-consultation)

A consultation was undertaken for the draft Contaminated Land Strategy. The draft document was sent to organisations and placed in publicly accessible areas, as set out below, for a X week period between X and X. The deadline for comments was X and we received X responses to the consultation

A summary of the responses is included as Appendix A and we have also included a list summarising suggestions/recommended changes and how they have been incorporated into the final Contaminated Land Strategy.

Consultee	Description of Consultation
Councillors and elected members	Direct consultation with Lead Member for Energy, Waste, Transport and Public Realm.
Group Director	Contacted by direct email with a request for comments.
Planning	Contacted by direct email with a request for comments.
Housing	Contacted by direct email with a request for comments.
Environmental Health	Contacted by direct email with a request for comments.
Public Health	Contacted by direct email with a request for comments.
Building Control	Contacted by direct email with a request for comments.
Finance	Contacted by direct email with a request for comments.
Legal	Contacted by direct email with a request for comments.

Table 5: Internal Consultees

Table 6: External Consultee

Consultee	Description of consultation
EA	
Food Standards Agency	
UK Health Security Agency	
English Heritage	

DEFRA	
London Borough of Newham	
London Borough of Waltham Forest	
London Borough of Haringey	
London Borough of Tower Hamlets	and the second
London Borough of Islington	A STATE OF THE S
London Legacy Development Corporation	
Greater London Authority	Cartan Carta Sta

Appendix B

Characteristics of the London Borough of Hackney

Location and Setting

The London Borough of Hackney comprises an area of about 1,905 hectares situated to the north east of Greater London and set between the London Boroughs of Islington, Tower Hamlets and Newham to the west, south and east respectively, also London Boroughs of Haringey and Waltham Forest to the north.

Much of the borough is developed for housing, commercial and institutional land uses, as well as civic uses, such as Council buildings, schools and hospitals. Hackney also has large areas of green spaces similar to most London boroughs, and significant areas of road and rail.

Land Use	Area ('000s m2)
Area of Domestic Buildings	2,515
Area of Domestic Gardens	3,530
Area of Non Domestic Buildings	1,860
Area of Road	3,716
Area of Rail	141
Area of Path	247
Area of Greenspace	4,427
Area of Water	416
Area of Other Land Uses	2,205
Total Area of All Land Types	19,058

Table 7: Broad land use statistics for Hackney¹⁰

Housing and Regeneration

About 40% of the borough's housing stock comprises semi & detached, terraced and converted houses, which are more likely to be associated with gardens. Where land is associated with a potentially contaminated site, this may increase the likelihood of

¹⁰ Land Use by Borough and Ward (2005) : Ministry of Housing, Communities & Local Government

exposure. The remaining housing stock (about 60%) is made up of purpose-built flats, which are sometimes associated with small gardens or areas of open space.

Geology and Hydrology

Natural and artificial geology of an area are often considered when there is potential for contamination to affect the environment. Typically geology will need to be considered on a site-by-site basis during each stage of investigation and remediation.

Much of Hackney is overlain by superficial deposits of brick-earth, made ground or by superficial deposits of alluvium, which are considered to be impenetrable and so may prevent contamination from migrating great distances, or impacting groundwater. Brick-earth was often extracted for tile and brick-making and the consistency of alluvium is also variable, often consisting of significant portions of sand and gravels, making it more permeable to contamination and polluted groundwater.

Beneath these superficial deposits the London Clay Formation is found across the borough. This is an impermeable layer and is often found to be in excess of 30 metres thick. Where intact, it effectively prevents the downward mitigation of any polluted groundwater and contamination to greater depths.

River Terrace Gravels and other similar deposits (i.e. typically made up of sands and or/gravels) are also present across most of the central portion and in the southern portion of the borough above London Clays and other solid geology. The presence of the River Terrace Gravels provides possible routes (or pathways) for contamination to migrate and impact upon shallow groundwater.

At greater depths beneath Hackney and London in general, the Lambeth Group, the Thanet Beds, and ultimately chalk, are found. As a major aquifer, chalk provides an important source of groundwater in the region and so needs to be protected.

Locally, shallower sources of water are also found within minor aquifers such as River Terrace deposits and the Lambeth Group. However, they still need to be considered on a site by site basis; particularly because of the variability in the Lambeth Group, which is usually considered to be impenetrable but is known to be locally more permeable, may result in an increased risk of pollution of the Chalk aquifer.

Radon

The presence of Radon in, on, or under the land does not constitute 'contaminated land'.

Current radon UK maps for the district can be found at Public Health England.¹¹

Made Ground

Similar to other London boroughs and urban centres within Britain, fill has built up over the years due to successive phases of development and is often found to depths of between half a metre and five metres or more. Much of the fill materials used were the result of demolition activities, or industrial sources; for example, boiler ash may have been landfilled. Historically land has also been exposed to diffuse industrial pollution sources. For example, the use of lead petrol between the 1960's and 1980's acted as a diffuse source of lead pollution along roadways.

As a result of these activities certain chemicals are commonly found to be elevated above non-statutory government guideline values without any known previous industrial activity ever happening. Typically this has resulted in arsenic and lead commonly being found to be elevated across the borough, Once again, a similar situation exists across London and in other urban centres across the UK.

Source Protection Zones

The EA has identified source protection zones (SPZ) throughout England, which aim to protect sensitive groundwater sources. SPZ covers a significant portion of the northern and eastern parts of the Borough but must be considered on a site by site basis.

Rivers, canals and other water features

Other than ponds, the main surface water features in the borough consist of reservoirs, rivers and canals. These water features which include those listed below, will need to be considered when assessing individual sites.

- The River Lea, which runs along the eastern boundary of the borough.
- The Lee Navigation Hackney Cut River, which runs through the far eastern portion of the borough.
- The New River, which arcs through the north western portion of the borough.
- The East and West reservoirs, which are situated in the north west of the borough alongside the New River.
- The Grand Union Canal/Regents Canal, which runs through the southern portion of the borough.

¹¹ <u>https://www.ukradon.org/</u>

Unexploded Ordnance

Duirng the Second World War and the blitz, thousands of bombs were dropped all over London, with east London and Hackney in particular being one of the most affected areas. A small percentage of the bombs that were dropped in this area did not explode and are known as unexploded ordnance or UXO. These bombs can still pose a threat, especially during construction when piling or drilling may be taking place. As a result, during the planning stage of a development it is common for sites in Hackney to undergo a UXO survey. This process outlines any risk to people and the environment and provides solutions for overcoming any identified risk.

Industrial and Natural Heritage

While the London Borough of Hackney has no national or international environmental designations, two sites of special scientific interest are situated across the Borough to the north east (i.e. Walthamstow Marshes and Walthamstow Reservoir). There are also a number of locally designated sites of Importance for Nature Conservation with a number of open spaces that will need to be considered when assessing contaminated land.

The London Borough of Hackney has little significant archaeological history, although remains have been found in the Borough and there are a number of Grade I and Grade II listed buildings, which will need to be considered when assessing individual sites.

Appropriate Person	Defined in Section 78A(9) as: 'any person who is an appropriate person, determined in accordance with section 78F, to bear responsibility for anything which is to be done by way of remediation in any particular case.'
Aquifor	An aquifer is sail and/or reak that contains water that may be
Aquifer	An aquifer is soil and/or rock that contains water that may be used for local, regional or national water supply.
Brownfield Land	Formerly developed or industrial land where there is the possibility of the ground being contaminated e.g. gas works
Conceptual Model	A drawing or schematic showing how, in theory, the contaminant can get to the receptor and which pathways it will use
Contaminant	A substance which is in, on or under the land and which has

Glossary of Terms

	the potential to cause significant harm or to cause pollution of controlled waters.
Controlled Waters:	Defined in section 78A (9) by reference to Part 3 (section 104) of the Water Resources Act 1991; this includes territorial and coastal waters, inland fresh waters and ground waters.
Contaminant linkage	The situation where a contaminant source, pathway and receptor are present resulting in the potential for effects upon the receptor to occur.
Critical Receptor	The receptor (person, building or ecosystem) that is most affected by the contamination on site. In cases where houses are to be built this is taken to be a female 6 year old child living there for life. This is because they will be most damaged if the contamination is not dealt with.
Detailed Quantitative Risk Assessment (DQRA)	A detailed assessment of potential contaminant exposure and risk carried out on a site specific basis using measured site parameters wherever possible. This level of assessment gives the most realistic appraisal of the likely levels of risk present.
EA	Environment Agency, an executive non-departmental public body whose principle aims are to protect and improve the environment, and to promote sustainable development.
Generic Quantitative Risk Assessment	An assessment of risk from contaminants in soil by comparing site specific contaminant concentrations with generic screening criteria developed for general use in line with best practice guidance. Such criteria are typically very conservative in their assumptions about allowable exposure and risk
GIS	Geographical Information System
	Land Quality Management System.
Pollutant	A contaminant which forms part of a pollutant linkage.
Pollutant Linkage	The relationship between a contaminant, a pathway and a receptor.
Part 2A	Part 2A of the Environmental Protection Act 1990.
Pathway	One or more routes or means by, or through, which a receptor: (a) is being exposed to, or affected by, a contaminant, or

	(b) could be so exposed or affected.
Register	The public register maintained by the enforcing authority under the enforcing authority under section 78R of particulars relating to contaminated land.
Remediation	Remediation is the process of cleaning up contaminated land so that the contamination is no longer affecting the users of a site/adjacent site. The level or remediation that must be achieved is set out within statutory guidance. Section 78A(7): Defines "remediation" as: "(a) the doing of anything for the purpose of assessing the condition of – (i) the contaminated land in question; or (ii) any controlled waters affected by that land; or (iii) any land adjoining or adjacent to that land; (b) the doing of any works, the carrying out of any operations or the taking of any steps in relation to any such land for the purpose – (i) of preventing or minimising, or remedying or mitigating the effects of, any significant harm (or significant pollution of controlled waters), by reason of which the contaminated land is such land; or (ii) of restoring the land or waters to their former state; or (c) the making of subsequent inspections from time to time for the purpose of keeping under review the condition of the land or waters.
Remediation Statement	Is defined by Section 78H(7) of the Environment Protection Act 1990 and is a statement prepared and published by the responsible appropriate person detailing the remedial actions which are being, have been, or are expected to be done, together with the periods within which each of the things specified are being or will be done/
Special Site	Land meeting the definition of a Special Site as described within the Contaminated Land (England) Regulations 2006.
SSSI	Site of Special Scientific Interest
Statutory guidance	This refers to the Contaminated Land Statutory Guidance published in April 2012, which sets out guidance to local authorities on how the contaminated land regime should be implemented
Surface Water	Any water that sits on the surface of the land. Main sources of surface water include the dea, lakes, reservoirs, rivers, canals and ponds.
Verification reporting	Verification reporting is reporting that contains evidence of what work has been carried out to remediate a site. This may include the technical details of the remediation, evidence that the remediation has been carried out successfully and monitoring to show that the remediation is working and any risks have been addressed.

