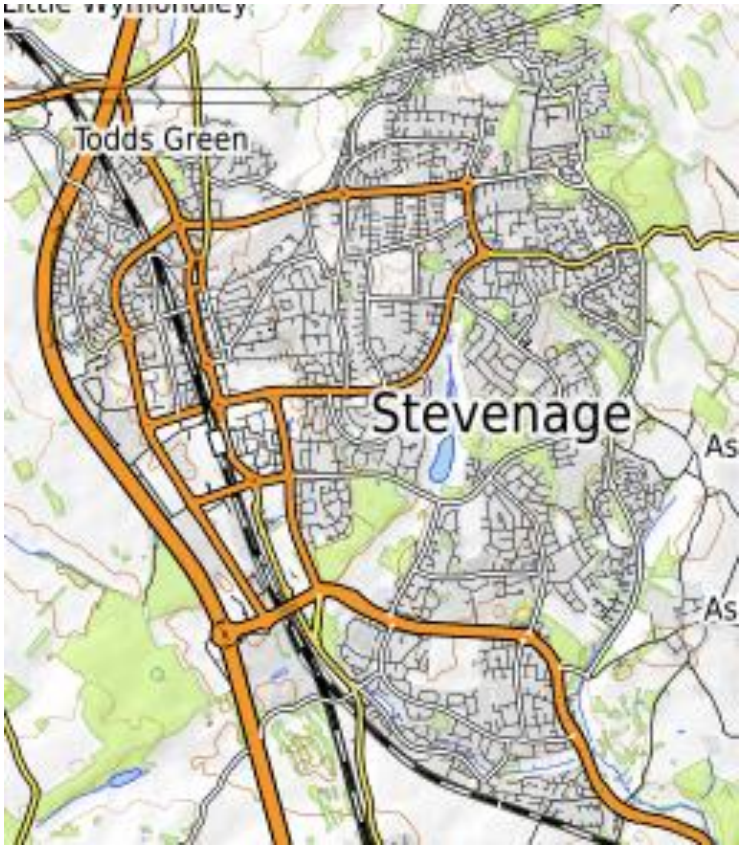
CONTAMINATED LAND INSPECTION STRATEGY 2024-2029
Version 2.0

as required under the provisions of the
ENVIRONMENT ACT 1995
ENVIRONMENTAL PROTECTION ACT 1990



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Stevenage Borough Council
Daneshill House
Danestrete
Stevenage
SG1 1HN

Tel: 01438 242754
Email: env.health@stevenage.gov.uk

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PREFACE

This document is Version 2.0 of the Stevenage Borough Council (the Council) Contaminated Land Strategy. Version 2.0 replaces the earlier version of the Strategy dated June 2001 and has been produced to accommodate the Central Government initiated changes to the 2012 Statutory Guidance. The Statutory Guidance has been in place in one form or another since 2000 in order to support the legal framework for dealing with contaminated land under Part 2A of the Environmental Protection Act 1990.

The updated Statutory Guidance was published in April 2012 with the stated aims being to:

- give greater clarity to regulators as to how to determine when land is and is not actually contaminated land
- be shorter, simpler and more focused towards achieving optimum results in terms of dealing with sites most in need of remediation
- reflect the experience accumulated over eleven years of operating the regime allowing regulators to take a more targeted approach which remains precautionary but avoids an over cautious blanket approach.

The changes made to the Strategy have been necessary in order to fulfil the Council's statutory obligations and to protect against the risk of any future Part 2A activities being challenged on the grounds that the Council Strategy is out of date.

The key changes that are incorporated into this Strategy are summarised below:

- The separation of the Statutory Guidance for radioactively contaminated land from the Statutory Guidance for non-radioactively contaminated land (Section 7.1 & Appendix 1).
- Revisions to the Council's approach to Risk Prioritisation of land that has the potential to be contaminated land (Section 6.2).
- Change to the definition and assessment of the significance of pollution of controlled waters from land contamination (Section 7.1).
- Introduction of requirement for Risk Summaries (Section 7.2).
- Introduction of the ability to reconsider, revoke or vary Statutory Determinations of Contaminated Land (Section 10.0)
- The revocation of Regional Spatial Strategies and Planning Policy Statements/Guidelines following the introduction of the National Planning Policy Framework (NPPF), the most recent version of which was published in 2023 (Section 1.4).

1. INTRODUCTION

1.1 Background to the Legislation

The industrial revolution and its subsequent impact on the demographic and spatial distribution of people in the United Kingdom resulted in an unprecedented change in land use patterns. In the latter half of the 20th century the character of the UK economy shifted significantly, albeit gradually, away from industrial production to a more service based economy. Inevitably, these changes and others, for example the type and volume of waste that is sent to landfill, have left behind a legacy of land that has been contaminated with harmful substances which may pose a risk to the environment (human, animal, natural and built). This gave rise to a need for a regulatory framework by which land affected by contamination, which was adversely impacting the environment could be remediated for the benefit of the environment and if vacant brought back into beneficial use.

The current and projected need for homes has placed renewed pressure on local authorities to reuse land in urban areas and this provided an additional impetus for the rehabilitation of historically contaminated land.

1.2 Regulatory and Policy Context

The contaminated land statutory framework is the principal driver for requiring an up to date Contaminated Land Strategy. The legislation in question is Part 2A of the Environmental Protection Act 1990 (Part 2A EPA 1990), which was introduced by Section 57 of the Environment Act 1995. This is supported by the Contaminated Land (England) Regulations 2006 (amended 2012) and statutory guidance. At the time of writing the most recent version is the Contaminated Land Statutory Guidance 2012.

The legislation and guidance states that local authorities should cause their areas to be inspected from time to time with a view to identifying contaminated land. There should be a strategic approach to this and it should be detailed in a written contaminated land strategy, which should be kept under periodic review.

The Contaminated Land Strategy has been prepared in the context of the Council's vision 'Making Stevenage Even Better' and corporate priorities of Transforming our Town and providing More Social, Affordable and Good Quality Homes.

1.3 Roles and Responsibilities

The primary regulator in respect of the contaminated land regime is the local authority. For Stevenage Borough Council the strategy will be under the control of the Environmental Health Team overseen by the Senior Environmental Health and Licensing Manager. The role in broad terms is:

- to cause the area to be inspected to identify potentially contaminated sites;
- to determine whether any particular site is contaminated (by definition);
- to determine whether any such land should be designated a 'special site' (**Appendix 1**); and
- to act as enforcing authority for contaminated land not designated as a 'special site'.

The Environment Agency also has three main roles:

- to assist local authorities in identifying contaminated land (particularly where water pollution is involved);

- to provide site specific guidance to local authorities on contaminated land where requested;
- to act as enforcing authority for contaminated land designated a ‘special site’

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

- establish who should bear responsibility for remediation;
- decide after consultation what must be done in the form of remediation and ensure it is effectively carried out;
- determine liability for the costs of the remedial works; and
- maintain a public register of regulatory action in relation to contaminated land.

In order to satisfy the far reaching objectives of the contaminated land regime it will be necessary to assess land throughout the whole of the Borough and to collate significant volumes of information. This will ultimately enable this Authority to make the sometimes difficult and inevitably complex decisions relating to its condition, the risks it presents and who may be liable for it under law.

It must be noted that although local authorities have the sole responsibility for designating sites as contaminated land and this responsibility cannot be delegated to another body, support and advice can be obtained from contaminated land professionals external to the Council. Additionally the responsibility of local authorities should not be considered in isolation from their other duties that have the potential to achieve the same goal as the Contaminated Land Strategy or from the impact on their available resources.

Appendix 2 contains the list of organisations and internal departments that will be consulted on the Contaminated Land Strategy.

1.4 Strategic Planning

The Stevenage Borough Local Plan 2011-2031 was adopted on 22nd May 2019 and replaced the District Plan (Second Review). It sets out how Stevenage will develop in the future and seeks to provide around 7,600 new homes alongside new jobs and community facilities.

Inevitably this scale of development will require the development of previously developed (brownfield) land, some of which will have an industrial or commercial history that may have resulted in land contamination. However, the Local Plan includes Policy FP5: Contaminated Land. This states that planning permission will be granted for development on brownfield sites if an appropriate Preliminary Risk Assessment is submitted which demonstrates that any necessary remediation and subsequent development poses no significant risk to the population, environment and groundwater bodies.

Therefore, in line with the planning regime, development of land will be subject to; site investigation where land contamination is likely to be an issue and remediation where significant contamination is identified. Such land and land that has been the subject of development via the planning regime since the establishment of the Contaminated Land Regime should be unlikely to constitute statutorily contaminated land in the future and should be suitable for its intended use.

Of particular significance is that the National Planning Policy Framework 2023 (NPPF 2023) at paragraph 189b) states "after remediation, as a minimum, land should not be capable of being determined as contaminated land under Part 2A. As a consultee to the local planning

authority, the Environmental Health Team considers all applications for the potential for land contamination and must keep in mind the relationship between the two regimes. As such it is expected that most contaminated land remediation will continue to be dealt with through the use of 'contaminated land' planning conditions.

1.5 Financial and Manpower Considerations

The Government has accepted that successful operation of the Contaminated Land Regime demands considerable resources. This reflects the fact that detailed inspection and assessment of potentially contaminated land can be complex, time consuming and open to legal challenge, as can the apportionment of liability for remediation.

1.6 Information, Complaints and Questions from the Public

All information supplied to the Council will be dealt with confidentially and will be considered by the appointed officer with the purpose of updating the current understanding of any given site. Information supplied that is non-specific and generalised will likely not be considered sufficient for initial consideration. This will be at the discretion of the appointed officer.

If information comes to the attention of the Council that indicates a site is causing concerns relating to contaminated land the Council will consider the necessity of undertaking any investigation in accordance with the Contaminated Land Statutory Guidance, or other relevant guidance.

Complaints may be received about particular sites needing further investigation that may give rise to concern, especially where a potential sale has failed as a result of the suggestion that the land may be contaminated. Those so affected may seek an early investigation to clarify their position, thereby seeking to circumvent the prioritisation process (Section 6). Such requests for priority inspection will be considered on the basis of the site-specific circumstances and will be dealt with as considerately as possible, but ordinarily will not be taken forward. However, in exceptional circumstances, where a sufficiently strong enough case can be made and where resources are made available by Stevenage Borough Council or Central Government an investigation may be possible.

2.0 THE CONTAMINATED LAND REGIME

2.1 Aims and Objectives

The Act itself states in Section 7B (1) that:

Every local authority shall cause its area to be inspected from time to time for the purpose of:

- identifying contaminated land; and
- enabling the authority to decide whether any such land is land which is required to be a Special Site (**Appendix 1**).

Section 78B (2) states that the authorities must act in accordance with guidance issued by the Secretary of State, currently the Contaminated Land Statutory Guidance, April 2012.

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

- Identify and remove unacceptable risks to human health and the environment arising from historically contaminated land;
- Seek to ensure that historically contaminated land is made suitable for its current use.
- Ensure that the burdens faced by individuals, companies and society as a whole are proportionate, manageable and compatible with the principles of sustainable development.

2.2 Definition of Contaminated Land

Contaminated land is defined 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** is being, or there is a significant possibility of such pollution being caused."

** What may or may not constitute the various categories of harm is described in the statutory guidance.*
*** Controlled waters include inland freshwater, groundwater and coastal waters*.

2.3 Outline of the Statutory Procedure

Local authorities are required to cause their areas to be inspected with a view to identifying contaminated land. The approach taken should be strategic and be rational, ordered and efficient and take account of local circumstances. It should be set out in a written Strategy.

As part of their Strategy the local authority should seek to give priority to areas of land that it considers pose the greatest risk to human health or the environment. It should be those higher priority potentially contaminated sites that should, ordinarily, be subjected to detailed inspection first.

Where the local authority identifies land where it considers there is a reasonable possibility that a significant contamination linkage (Section 5.0) exists it should inspect that land in sufficient detail to decide if it is statutorily contaminated. The timing of the inspection should be subject to the authority's approach to prioritisation of detailed inspection. The owner of the land and other stakeholders in the land being investigated should be consulted before inspection, unless there is a particular reason why this is not possible. This consultation process represents the first opportunity for securing the possibility of voluntary site inspection and if necessary voluntary remediation (without the need for enforcement action) should either an intrusive site investigation or remediation be required.

Where the findings of any detailed inspection identify a source(s) of contamination and a sensitive receptor(s) together with a pathway(s) linking them, they must undertake a formal risk assessment. This should be in accordance with established scientific principles in order to establish the likelihood of harm, or pollution and the scale and seriousness of such harm or pollution if it did occur. Detailed advice on the approach to the risk assessment process is contained in the 2012 Statutory Guidance.

In the event that the necessary inspection has not been undertaken voluntarily and the Council is satisfied that the land meets the definition of statutorily contaminated land it must inform the land owner and other appropriate person(s). If a voluntary approach is still not forthcoming it shall declare that a significant pollutant linkage(s) exists and that the land is contaminated land by definition. In every case where the land does not fall within the category of “special site” the Council must commence regulatory action, which involves a series of complex steps and considerations that are detailed within Sections 5 - 8 of the 2012 Statutory Guidance.

The considerations relate to:

- the area of land, the nature of the contamination and its likely impact (Section 5)
- remediation (Section 6)
- liability (Section 7)
- cost recovery and hardship (Section 8)

3. AIMS AND OBJECTIVES OF THE STRATEGY

3.1 Aims

The overarching aim of the strategy is to meet the Council’s statutory obligation to produce a formal strategy pursuant to Part 2A of the Environmental Protection Act 1990 in accordance with Statutory Guidance issued in April 2012.

The strategy prioritises sites where there is a theoretical risk of land contamination and one or more vulnerable receptors at risk of harm or pollution. The Strategy appropriately takes into account local circumstances and the history of, and the prospect for, sites being dealt with via the planning system.

The legislation and accompanying guidance for the risk-based approach to dealing with contaminated land requires a rational, ordered and efficient approach. Specifically the Council aims to ensure:

- A risk-based approach, that is both systematic and objective in order to prioritise those areas which are in need of further investigation and possible remedial action.

- Where possible, un-necessary burdens on the tax-payer, businesses and individuals are minimised e.g. site owners are encouraged to voluntarily investigate and remediate sites.

Where possible the economic and financial damage that land contamination can cause is minimised.

- Where voluntary remediation is not forthcoming, determination of the most appropriate action to ensure compliance with, and enforcement, of the appropriate legislation.

- Procedures are in place to produce and publish a Public Register of the enforcement history of land statutorily designated as “contaminated land”.

3.2 Objectives

- To provide an efficient mechanism by which information derived from existing records, members of the public, industry, etc. can be collected, collated, assessed and updated to inform a prioritisation list of potentially contaminated land.

- To review previous action taken to deal with contaminated land to ensure that the previous action was stringent enough to deal with the contamination in order to meet with current guidelines.

- To ensure that sites identified as “contaminated land” are effectively dealt with through consultation and monitoring.

- To enable the dissemination of information related to land contamination, when requested and which is not in contravention of relevant legislation.

4.0 CHARACTERISTICS OF THE STEVENAGE BOROUGH AREA

4.1 Geography

The borough of Stevenage encompasses the town of Stevenage and is situated to the north of Hertfordshire, around thirty miles north of London on the A1(M) motorway. It has a total area of 2,606 hectares (6,439 acres) and a population of 89,500 according to the 2021 Census. It has boundaries with North Hertfordshire District Council to the north, west and south and with East Hertfordshire District Council to the east.

4.2 History

Until the 1940s Stevenage was a small market town situated at the junction of the Great North road and the Hitchin to Hertford route. The first settlements, however, can be traced back to the Romans with burial grounds in the town dating from around 100AS. The community remained small but grew slowly with the coaching days of the 18th and 19th centuries. Employment at the time was mostly based around agriculture and the small trades based in what is now the old town.

After the Second World War there was a need for new housing for Londoners and Professor Abercrombie initiated his ‘Greater London Plan’ which involved the creation of a number of satellite or ‘new towns’ circling London. These were aimed at relieving the post war housing problems of London. Due to the size and location of Stevenage it was found to be an ideal site to be developed as a new town and on the 1st August 1946 Stevenage was designated as Britain’s first new town.

The plan for Stevenage was for six separate residential neighbourhoods, all self contained and each providing homes for around 12,000 people. The first phase of the development was completed in 1952. Since then the development, including additional residential neighbourhoods has continued, throughout which the population is fairly evenly distributed.

The master planning process by which Stevenage has developed gives it a theoretical advantage over many other towns where the potential for pollutant linkages to be present is concerned. One of the guiding principles of that process was to keep industrial and residential areas separate by setting aside designated areas of the town solely for industrial use.

This is in contrast to a town that has developed on a more ad-hoc basis over a many years, which is more likely to have old industrial and residential areas interwoven throughout the

town, thus bringing potential receptors into closer contact with potential sources of contamination.

The aim in Stevenage was to provide an easily accessible area of concentrated employment, whilst protecting residents from the day to day hazards that arise from living near industry. The minimum that separated the two was usually a major road, often supplemented by trees or open green space. Inevitably there are some residential areas that are close to, or located on historical industrial sites, but these were kept to a minimum.

This way in which Stevenage has developed has enabled Officers responsible for contaminated land to focus attention in key areas.

Former land use types that have the potential to cause contamination include gas-works, quarries, in-filled land, landfills, the rail industry, bus depots, petrol stations, manufacturing and engineering sites, sewage works, slaughterhouses and timber yards.

4.3 Environment

The area of natural habitats (excluding farmland) within the Borough amounts to about 20% of its total area, which is low when compared with the Hertfordshire average of around 30%. This reflects the urban nature of the Borough. The majority of the natural habitats are grassland, with a smaller proportion of woodland and scrubland.

There is, however, proportional to its size twice as much amenity grassland in the Borough than in any other area of Hertfordshire. This is another positive legacy of the ethic behind the town's development, emphasising that Stevenage is not completely urbanised. The Local Plan recognises 37 wildlife sites, 27 green corridors, 10 principal open spaces, 21 principal amenity green spaces and 20 principal woodlands in Stevenage for their wildlife value and local importance. There are no European or nationally designated sites in the Borough, however, there are a number outside the Borough boundary, including the Knebworth Woods Site of Special Scientific Interest (SSSI), Rye Meads SSSI, Chilterns Area of Outstanding Natural Beauty (AONB) and the Lea Valley Special Protection Area (SPA).

4.4 Geology, Hydrogeology and Hydrology

Stevenage can be divided into two main areas of solid geology. To the west lies a solid geology mainly comprising middle chalk with a varying thickness of between 10-70m, underlain by lower chalk and gault. Overlying the middle chalk are a variety of drift deposits largely comprising of undifferentiated glacio-fluvial deposits and tills.

The east of the Borough has a layer of upper chalk, around 25 metres thick, overlaying the middle chalk. Various drift deposits comprising clay and tills overlie the upper chalk.

The majority of the soils are of high leaching potential, defined as 'soils with little ability to attenuate diffuse pollutants meaning that pollutants have the potential to move rapidly to underlying drift geology.

As a result of the entire Borough being underlain by chalk bedrock the groundwater vulnerability is high and the aquifer designation is a Principal Aquifer. Linked to that hydrogeology there are seven source protection zones (SPZ) located within, or which extend into, the Borough. There is also one private drinking water supply in the Borough. As well as being an important source of potable water supplies, the chalk aquifer provides base-flow to the area's chalk streams.

4.5 Protected Locations

Listed buildings and conservation areas are designations which aim to protect heritage assets that add distinctive character and historical interest to a place. There are over 100 listed buildings in Stevenage and seven conservation areas and these are protected by National laws and guidance.

5.0 IDENTIFICATION OF POTENTIALLY CONTAMINATED SITES

5.1 Introduction

In undertaking its duty to inspect the Borough under Part 2A, the Council will take into consideration the particular characteristics of the area, including:

- Potential sources of contamination.
- Relevant geology, hydrogeology and hydrology.
- Potential specified receptors (all human receptors, sensitive water receptors, sensitive property receptors and relevant ecological receptors).

Before a piece of land can be considered as possibly being “contaminated land”, a “pollutant linkage” must be identified. The process of identifying pollutant linkages and of assessing the significance of each linkage is based on “contaminant-pathway-receptor” methodology.

A **contaminant** is a substance which is in, on or under the land and which has the potential to cause harm to a relevant receptor, or cause pollution of controlled waters.

A **receptor** is either, (a) a living organism, a group of living organisms, an ecological system or piece of property and is being or could be harmed by a contaminant, or (b) controlled waters that are being or could be polluted by a contaminant.

A **pathway** is one or more route(s) 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.

Unless all three elements of a pollutant linkage are identified land cannot be considered contaminated. All search strategies will therefore be prioritised on areas where both contaminants and receptors are known or likely to exist.

For example, if an area had a land use that was likely to have been affected by contaminants it would not be considered of the highest priority if there were no specified receptors within the area of interest. This would also apply if receptors were present but pathways by which they could be exposed to the contaminants were absent. However, if one or more pathway or receptor were present then the same land use would be considered a higher priority.

5.2 Potential Sources of Contamination

Any site with the potential to cause pollution will be identified at this preliminary stage. A non-exhaustive list of land uses considered to be potentially contaminative can be found in **Appendix 3**. Both historical and current land uses will be considered.

Past Industrial, Commercial, Waste Disposal & Mineral Extraction Activities

The vast majority of potentially contaminated sites will be identified through the examination of historical data in the form of old ordnance survey maps, plans and photographs for evidence of past industrial use. Information obtained from local sources and local knowledge of past industry will also be utilised.

It must be recognised that many of those former industrial sites will have been redeveloped over the years. In some cases they will have been redeveloped with residential dwellings, schools or other land uses that are inherently more vulnerable to the presence of contamination than the original land use. In such cases the methods and extent of remediation may be unknown; in others it may be known but the adequacy of the remediation will need to be examined. This will be a factor in the risk prioritisation process.

Current Industrial, Commercial, Waste Disposal & Mineral Extraction Activities

The present industrial areas of the Borough are also potential sources of historical contamination and these will be inspected in accordance with the statutory guidance to establish whether there is a potential for contamination, and if there is, whether it is controlled by another agency.

5.3 Potential Specified Receptors

Land can only be considered contaminated if the contamination adversely impacts specified receptors:

Human

The present population of the Borough is approximately 89,500. The potential for persons either living on or frequenting a potentially contaminated site will be considered within the prioritisation process, with higher priority assigned to sites occupied and frequented by children.

Property - Buildings

All buildings are potential receptors and will be considered in every case where contamination and buildings exist. Where relevant, the heritage status of a building will be assessed at the later stages of any risk assessment.

Property - Crops including Timber

Being a largely urban area, crop growing regions will not be specifically identified but taken into consideration as necessary. Where contamination is known or suspected, associations with poor yield and crop failure will be investigated. Crop failure as a result of contamination is, however, most unlikely except perhaps where trees have been planted on contaminated land as part of a remediation programme.

Property - Produce Grown Domestically and on Allotments

There are numerous allotment areas within the Borough and these will be factored into the risk prioritisation process as will the presence of domestic gardens.

Property - Livestock, Game and other Owned Animals

Again being a largely urban area, the presence of livestock or other animals in an area will not be specifically identified but taken into consideration as necessary.

Ecological Receptors

Where relevant, any identified ecological receptors will be considered at the later stages of any risk assessment. If necessary this will include consideration of the potential for contamination migration across boundaries in relation to sites adjacent to the Borough.

Water - Controlled Waters

All surface water receptors, such as rivers, streams, tributaries, reservoirs and lakes, will be considered as part of the inspection strategy. All groundwater receptors including Principal, Secondary and non-aquifers will be identified and factored into the risk prioritisation process.

Water - Public Water Supplies

All public water supply abstraction points will be considered as well as their respective Source Protection Zones, noting that the latter were most recently updated in September 2022. All other authorised abstraction points will also be considered including any used for agricultural or recreational use.

Water - Private Water Supplies

There is one private water supply within the Borough of Stevenage and its existence has been factored into the risk prioritisation process. The protection of private water supplies is particularly important due to the reliance on them by the local communities that they serve. The Council already monitors this supply as part of its duties under the Private Water Supplies (England) Regulations 2016 and 2018 (Amendment) Regulations.

5.4 Potential Pathways of Exposure to Contamination

Pathways by which receptors can be exposed to contamination are many and will vary considerably depending on the contaminant and the different types of receptors. It is neither practical nor appropriate to summarise all potential pathways in this document, but for context two examples are included below.

For volatile contaminants, or gases, a pathway to human exposure could be through cracks in, or service penetrations through, concrete floor slabs. Whereas for contaminants in a liquid or solid phase this pathway to human exposure would not be significant, but direct contact with the soil, or dusts from the soil, containing the contaminants may well be.

For contaminants in the ground that can be mobilised by precipitation, or that exist in a liquid form, a porous/permeable geology will represent a viable pathway through which those contaminants could move laterally or vertically to impact on a surface water or groundwater receptor. Whereas, if those same contaminants were present in, or were contained by, an impermeable or low porosity/permeability geology then that pathway would be much less significant or not viable at all.

6.0 THE RISK PRIORITISATION PROCESS

6.1 The Strategic Approach

The identification of statutorily contaminated land will be carried out in an ordered, rational and efficient manner based firmly on the principles of risk assessment. It will slightly amend but

largely build on the general approach detailed in the 2001 Strategy and will be implemented using a staged approach that will make the best use of scarce resources.

The 2001 Strategy had the following strategic approach:

1. A framework for inspection of sites requiring urgent attention
2. Collection of information on potentially contaminated sites
3. Compilation of a list of potentially contaminated sites
4. Risk-based assessment and prioritisation of sites
5. Initial assessment of potentially contaminated sites
6. Detailed inspection of high risk sites from the priority list

No sites were identified within Stage 1 of the Strategy, so this Stage is complete.

Stages 2 and 3 can also be considered to be complete with a list of just over 400 sites identified as locations where contaminated land could theoretically be present.

To date, however, there has been no prioritisation of the sites within that list. Therefore, in order to meet the statutory requirements of being rational, ordered and efficient with an approach to the prioritisation of the detailed inspection of potentially contaminated land, it is from Stage 4 of the strategic approach onward that this version of the Strategy needs to address.

6.2 Stage 4: Initial Risk Prioritisation:

Having identified sites that may be contaminated as a result of historical activities and having established the general circumstances of each site (e.g. what receptors and what pathways are present), it is necessary to conduct a simple risk assessment of each site. This will provide an estimate of each site's likelihood of causing harm to, or pollution of, receptors and in so doing establish the priority it should be assigned for further inspection under Stages 5 and 6 of the Strategy.

The initial risk prioritisation process represents a risk based screening procedure with scoring awarded to each aspect of the source – pathway – receptor linkage for each site.

This procedure will be undertaken by utilising the Council's Geographical Information System (GIS) to enable site land uses (current and historical) to be overlain on their respective planning history and geological, hydro-geological and hydrological environments.

This initial risk prioritisation will be made on a limited amount of data and is designed to be an efficient process that is neither resource, nor time intensive; but which will generate a list of potentially contaminated sites organised in a rational manner from sites with the greatest likelihood risk of causing harm or pollution down to sites with the lowest likelihood.

The process will need to be kept under review as more knowledge about existing sites is obtained and if previously un-identified sites are found.

The detailed prioritisation methodology is included in **Appendix 4** but the scoring that feeds into the methodology is summarised below.

(A) Sources of Contamination

Probability of Contamination	Example Land Use	Score
Very High	Gas works & landfill sites	10

High	Manufacturing works and petrol stations	8
Moderate	Printers & transport depots	6
Low	Quarry or cemetery	4

(B) Human Receptors

Sensitivity of Receptor	Score
Residential with private garden	10
Residential with communal garden	8
Allotments	8
Schools	6
Public Open Space	4
Commercial	2

(C) Groundwater Receptors

Sensitivity of Receptor	Score
Principal Aquifer (public drinking water supply or Source Protection Zone (SPZ) I)	8
Principal Aquifer (SPZ II)	7
Principal Aquifer (SPZ III or outer)	6
Secondary Aquifer A	5
Secondary Aquifer B	4
Non Aquifer	1

(D) Surface Water Receptors (within 150m)

Sensitivity of Receptor	Score
River, stream or brook	6
Lake	4
Pond	3

(E) Geological Pathways

Probability of Migration	Example Geology	Score
Likely	Chalk or Sands & Gravels	8
Probable	Alluvial deposits (e.g. inter-bedded sands & gravels with peat or silts)	5
Possible	Head deposits	4
Unlikely	Clays	2

(F) Proximity of Source to Each Receptor

Probability of Migration	Score
On site	1
Within 50m	0.8
Within 100m	0.4
Beyond 100m	0.2

(G) Evidence of Remediation

Probability of Effective Remediation	Score
Since 2006 & fully documented	0.5
Pre-2006 or not fully documented	0.75
None or no records	1

Once the various scores for each site have been combined as described by the methodology detailed in **Appendix 4** each potentially contaminated site will be awarded a risk prioritisation score and a prioritisation category (see below).

Sensitivity of Receptor	Score	Explanation
High Priority	**≥ 25**	Sites where, theoretically, there is considered to be a significant possibility of significant harm/pollution existing
Medium Priority	**15-24**	Sites where, theoretically, there is considered to be a strong case for a significant possibility of significant harm/pollution existing
Low Priority	**9-14**	Sites where, theoretically, there is not considered to be a strong case for a significant possibility of significant harm existing, but that the possibility for contamination does exist
Very Low Priority	**0-8**	Sites where there is considered to be no risk of the significant possibility of significant harm or that, that risk is low

6.3 Stage 5: Detailed Inspection of Prioritised Sites:

The old Stage 5 (initial assessment of potentially contaminated sites) part of the strategic approach has been removed from the strategic approach taken in this Strategy for the following reasons:

- it is impractical in terms of time and resources
- it would add little value to the work undertaken in Stage 4

and most importantly

- it should represent the first stage of the detailed inspection of each of the highest priority sites and as such should be undertaken on a one (highest priority) site at a time basis.

Therefore, Stage 5 is now the part of the strategic approach where an appropriate, scientific and technical assessment of the circumstances of the land using all available evidence is undertaken. This will involve contact with owners of sites to request information about and access to the site and involve a comprehensive review of all available records or documentation associated with a site. There is also the possibility that intrusive ground investigations and the collection and analysis of environmental samples will be required.

The aim is to obtain sufficient information to enable this authority to make a determination that the land in question is statutorily contaminated land.

It must be recognised that this Stage is highly resource and time intensive for the authority. Therefore, considered in the context of financial constraints on local authorities and the absence of central government funding or priority given to the implementation of the Part 2A Regime, it has to be recognised that Stage 5 of the process is not being actively pursued at the time of publication.

Nonetheless the existence of the Risk Prioritisation List and the provision within this Strategy to enable this authority to carry out detailed inspections remain valuable tools in ensuring that the residents and environmental resources of the Borough are protected from harm and pollution arising from contaminated land.

The circumstances under which Stage 5 may need to be implemented are:

- Where there is evidence presented to this authority of an active pollutant linkage(s) that is causing harm to a designated receptor or pollution to controlled waters.

- Where there is the possibility of the presence of an active pollutant linkage(s) that is having an unacceptable adverse impact on the well-being of one or more residents of this Borough and where there is a political imperative to establish the significance of the pollution linkage(s) in question.

- Where there is the significant possibility of significant pollution of Controlled Waters.

The processes of undertaking a detailed inspection of sites is not something that can or should be detailed within a Contaminated Land Strategy because of its complexity and the existence of a plethora of specialist guidance and best practice publications covering a comprehensive range of circumstances. It must, however, meet the requirements of the Statutory Guidance, it must be based on robust science-based evidence and be sufficient to be defensible in the event that the conclusions of the inspection are challenged.

7.0 DETERMINING CONTAMINATED LAND

7.1 Responsibilities and Requirements

The local authority has the sole responsibility for determining whether any land appears to be contaminated land. It cannot delegate this responsibility (except in accordance with Section 101 of the Local Government Act 1972). However, in making such decisions the authority may rely on information or advice provided by another body such as the Environment Agency, or a suitably qualified experienced practitioner appointed for that purpose.

There are four possible grounds for the determination of land as contaminated land (with regard to non-radioactive contamination):

(a) Significant harm to human health.

(b) Significant possibility of significant harm to human health.

(c) Significant harm or significant possibility of such harm (non-human receptors).

(d) Significant pollution of controlled waters or significant possibility of such pollution.

The legal definition of contaminated land is slightly different if harm is due to radioactivity as it is defined in Regulation 5 of The Radioactive Contaminated Land (England) Regulations 2006. Land contaminated by radioactivity is the responsibility of the Environment Agency.

Before making any determination, the local authority should have identified one or more significant contaminant linkage(s), and carried out a robust, appropriate, scientific and technical assessment of all the relevant and available evidence. The Contaminated Land Statutory Guidance (April 2012) provides the guidance necessary to enable the above as well as defining four categories of harm to human health to aid the determination process following completion of the risk assessment.

In the case of any land which, following determination as contaminated land, would be likely to meet one or more of the descriptions of a “Special Site” set out in the Contaminated Land Regulations 2012 (as amended), the Council should consult the Environment Agency before deciding whether or not to determine the land. The authority should take the Agency’s views into full consideration and it should strive to ensure it has the Agency’s agreement to its

decision (although the decision is for the authority to make subject to the provisions of Part 2A).

Situations may arise where, with the information available, it is not possible to determine whether a pollutant linkage is significant in accordance with the statutory guidance. In such cases the Council will determine that, on the balance of probabilities, the land does not fall within the statutory definition of contaminated land. However, the situation will be kept under review and reopened at any time new information becomes available.

Inspection may identify contamination that would form a significant pollutant linkage should new receptors be introduced to the site. In such circumstances this information will be recorded. Should such a site be identified for future development, the information obtained during the investigation will be made available to the planning authority and the owners/developers.

7.2 The Written Record of Determination and Formal Notification

Where a site is to be determined as "contaminated land", the Council shall:

- produce a Risk Summary that explains their understanding of the risk and other relevant factors in a manner that is understandable to a layperson. This is a prerequisite of a formal determination.
- afford all opportunities for the land owner and/or responsible person(s) to undertake their own suitable remediation. This reflects the fact that the legislation and statutory guidance is designed to encourage voluntary remediation (without the need for enforcement action) and in doing so minimise unnecessary burdens on the taxpayer, businesses and individuals.

However, if the Council is of the opinion that the timescale or the remediation method proposed will not alleviate the risk, then the Council will determine the land as "contaminated land" by statutory definition, and the Council will prepare a written record to include:

- a description of the pollutant linkage(s) confirmed;
- a summary of the evidence which confirms the existence of the pollutant linkage(s) including the risk assessments used to conclude their significance (the Risk Summary);
- a summary of the way the requirements of the statutory guidance were satisfied.

The Council will formally notify all relevant parties in writing that the land has been determined "contaminated land", including:

- the owner(s);
- the occupier(s);
- those liable for remediation ('appropriate persons' in the guidance); and
- the Environment Agency.

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

If land has been determined as "contaminated land" and also falls within one or more of the "special site" descriptions prescribed in the regulations made under Part 2A (**Appendix 1**), it is required to be designated a "special site". The Environment Agency then becomes the enforcing authority for that land.

The formal notification procedure commences the process of consultation on what remediation might be most appropriate. To aid this process the Council will therefore provide as much information to the relevant parties as possible, including where available:

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

Appropriate persons will be provided with written explanations of the tests for exclusion and apportionment.

8.0 DETERMINING LIABILITY

When a significant pollutant linkage(s) has been identified, the procedure relating to the apportionment of liability must commence. This has five distinct stages as follows:

- Identifying potential appropriate persons and liability groups.
- Specifying remediation actions.
- Attributing responsibility to liability groups.
- Assessing exclusion from liability within any liability group.
- Apportioning liability between members of a liability group.

8.1 Responsibilities and Requirements

These procedures are complex, commencing with the establishment of liability groups. All appropriate persons for any one pollutant linkage are a 'liability group'. These may be either class 'A' or class 'B' persons.

Appropriate Persons - Class 'A'

These are, generally speaking, the polluters, but also include persons who "knowingly permit pollution". This would include developers who leave contamination on a site that subsequently results in the land being determined as contaminated land.

Appropriate Persons - Class 'B'

Where no class 'A' persons can be found, liability reverts to the owner or the occupier of the land. These are known as class 'B' persons.

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

8.2 Specifying Remediation

The Council will specify what remediation measures are to be carried out in any Remediation Notice, with the reasonableness of the measures being an important factor. As such they will be both appropriate and cost effective, employing 'best practicable techniques' with the aim of the remediation being to ensure that the land is no longer contaminated.

8.3 Attributing Responsibility

Appropriate persons or liability groups must be considered for each significant pollutant linkage. Therefore, where a site has had a series of contaminative uses over time, each significant pollutant linkage will be identified separately and responsibility considered for each.

8.4 Assessing Exclusion

The Council will consider whether any members of a liability group should be excluded, in accordance with the rules for exclusion set out in Part 2A of the EPA 1990. There are numerous tests specified to identify Class 'A' groups who should be excluded from liability. These will be applied in sequence and separately for each pollutant linkage. The exclusion of Class 'B' persons is much less complex. A single test merely excludes those who do not have an interest in the capital value of the land. Tenants therefore are excluded.

8.5 Apportionment of Liability

The Council decides how to apportion liability between members of each liability group who remain after any exclusions have been made.

The financial circumstances of those concerned have no relevance.

The Council must consult persons affected to obtain information (on a reasonable basis having regard to the cost). If someone is seeking to establish an exclusion or influence an apportionment to their benefit then the burden of providing the Council supporting information lies with them.

Where there are agreements between appropriate persons the local authority has to give effect to these agreements, subject to paragraph 7.30 of the Contaminated Land Statutory Guidance 2012.

The statutory guidance also sets out considerations to which the enforcing authority should have regards when making any cost recovery decision. Therefore the Council will consider whether any of those liable for the remediation of "contaminated land" may not be able to afford the necessary work before serving any remediation notices.

8.6 Orphan Linkages

It is possible that either no Appropriate Person(s) can be found for a pollution linkage on a contaminated land site, or that all members of a liability group benefit from one or more exemptions. In such circumstances that pollution linkage shall be treated by the Council as an Orphan Linkage and the enforcing authority will have the power to carry out the remediation action(s) itself, at its own cost.

9.0 ENFORCEMENT

9.1 Remediation Notices

Where the Council has identified contaminated land and established the appropriate person(s) the Council shall serve on each appropriate person a 'remediation notice' specifying what that person is to do by way of remediation and the periods within which that person is required to do each of the things so specified.
Remediation notices will be served only as a last resort (notwithstanding urgent cases), and then only after the lengthy consultation processes and required considerations have been completed. Notices will be authorised after two tests are satisfied:

- that the remediation actions will not be carried out otherwise; and
- that the Council has no power to carry out the work itself

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

9.2 Remediation Statements

Before the Council can serve a Remediation Notice it will first determine whether it has the power to carry out any of the remediation actions itself. There are five specified circumstances where this may be the case:

- where urgent action is required (see below);
- where no appropriate person can be found;
- where one or more appropriate persons are excluded (e.g. on hardship grounds);
- where the local authority has made an agreement with the appropriate person(s) that it should carry out the remediation; and
- in default of a remediation notice.

In these circumstances the Council (where it is the enforcing authority) shall prepare a Remediation Statement specifying the works that will be undertaken and when they will take place.

Urgent action is required where the Council is satisfied that there is imminent danger of serious harm, or serious pollution of controlled waters, being caused as a result of contaminated land. In such circumstances the procedures identified in the statutory guidance will be followed which may involve forced entry into the premises. Section 108 of the Environment Act 1995 gives the Council power to authorise, in writing, “suitable persons” to investigate potentially contaminated land. These powers are extensive and will be considered in detail with the Council’s Solicitor prior to any resisted entry being attempted.

The terms “imminent” and “serious” are not defined, so local authorities are advised to use the normal meaning of the words.

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

9.3 Remediation Declarations

In circumstances where the only things by way of remediation which may be done are things that the Council considers are unreasonable having regard to the cost which is likely to be involved and the seriousness of harm, or of the pollution of controlled waters, it shall prepare a Remediation Declaration. This shall record the reason why the Council would have specified that remediation and the grounds on which it is satisfied that it is precluded from specifying that remediation.

10.0 RECONSIDERATION OF DETERMINATIONS

The Contaminated Land Statutory Guidance 2012 has introduced the option for the Council to reconsider, revoke or vary any of its determinations that land is contaminated land if it becomes aware of further information which it considers significantly alters the basis for its original decision. If the Council does so it should record its reasons alongside the initial

record of determination in a way that ensures that the changed status of the land is made clear.

11.0 CONTAMINATED LAND REGISTERS AND ACCESS TO INFORMATION

11.1 Contaminated Land Registers

Part 2A requires the Council to keep a public register. The public register is intended to act as a full and permanent record, open for public inspection, of all regulatory action taken by the enforcing authority in respect of the remediation of contaminated land. Schedule 3 of the Contaminated Land (England) Regulations 2006 provides details of the information required to be entered on the register. The Council's contaminated land register will be maintained by the Environmental Health Team. Members of the public will be able to view the register free of charge during normal office hours. Written, telephone and electronic requests for copies of documents should be made to the Council's Environmental Health Team. An administration charge will be levied.

11.2 The Environmental Information Regulations 2004

Implementation of the strategy will be likely to result in significant volumes of data that will be held on computer databases and geographical information systems. There is no statutory obligation to disclose this information therefore the Council must comply with the requirements of the Environmental Information Regulations when dealing with requests for disclosure.

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

It should be noted that the Council's prioritisation list for further investigation is being classified as "a record which is in the course of completion". This is because it is always liable to update and as such this will not be disclosed under the Regulations. It should, however, be understood that information held about specific sites within the prioritisation list will be made available via an Environmental Information Regulation request. A charge will usually be made for the supply of information in accordance with the Regulations. Where the Council must refuse a request for any of the reasons stated in the Regulations, it will provide details of the reasons in writing at no cost to the applicant.

It should also be noted that the Council will always act in accordance with the Data Protection Act 2018.

12.0 REVIEW ARRANGEMENTS

12.1 Inspecting the Borough

Whilst the Council has a duty to inspect the Borough "from time to time" to identify contaminated land, the frequency of inspection is not prescribed. In practice inspection it will be a continuum, balancing a systematic approach with the availability of resources. Of particular significance in meeting this duty will be the involvement of the Environmental Health Team as a:

- consultee of the Planning Department
- regulatory authority pursuant to the Environmental Permitting (England and Wales) Regulations 2016 and the Environmental Permitting (England and Wales) (Amendment) (England) Regulations 2023 .
- point of contact for members of the public with environmental concerns

12.1 Reviewing the Strategy

The Council has a duty to keep its written strategy under periodic review to ensure that remains up to date. It is up to the Council to decide when its strategy should be reviewed. However, a review at least every 5 years is considered good practice, or earlier if needed to reflect changes in Statutory Guidance.

Any proposed changes to the written strategy will be reported to the Members before they are finalised and any updated strategy published.

13.0 PROGRESS TO DATE AND FUTURE ACTIONS

The Government has identified that to implement this complex and demanding piece of legislation will involve considerable local authority resources. Yet there is currently no Defra Contaminated Land Capital Projects Programme available to assist local authorities in fulfilling their responsibilities under Part 2A, such as funding the costs of site investigations, detailed risk assessments and in certain cases remediation. There is also no internal Council budget to undertake detailed site investigations, risk assessments or where it becomes necessary remediation.

For these reasons progress with the implementation of the Part 2A of the EPA 1990 has not progressed beyond the publication of this written strategy and the initial stages of the identified strategic approach to identifying contaminated land within the Borough.

Despite the above it is important to recognise that over the past 10-15 years considerable progress has been made in the voluntary remediation of land adversely impacted by contamination as a direct consequence of the:

- Planning Regime – National Planning Policy Framework 2023 (and earlier versions), which identifies a clear relationship between the remediation of contaminated land for redevelopment and the Contaminated Land Regime.

- The Contaminated Land Regime - Part 2A of the EPA 1990 and associated Regulations and Guidance, which have provided clarity for local authorities and owners of land that is potentially contaminated in regard to liability, risk assessment and remediation expectations.

PROPOSED TIMETABLE FOR THE IMPLEMENTATION OF PART 2A

Duty	**Year**
Production and publication of statutory contaminated land strategy	2001, 2017/18 draft unpublished, **2023**

Periodic Review of the statutory contaminated land strategy	**2028** (unless earlier change to Statutory Guidance)
Identification of potentially contaminated sites and prioritisation for further investigation	**2024 - 2028** **ongoing** (to be kept under review and updated as and when new information becomes available)
Detailed inspection and assessment of potentially contaminated sites	**On hold in the absence of funding.** (Unless site specific evidence is presented that warrants an internally funded inspection by the Council)

APPENDIX 1

SPECIAL SITES INCLUDING LAND CONTAMINATED BY RADIOACTIVITY

Once the Council has formally identified land as “contaminated land”, it must also consider whether it falls into the category of a “special site”. For any “special site”, the Environment Agency is the enforcing authority for the purposes of the Part 2A regime. What constitutes a “special site” is specified in the Contaminated Land (England) Regulations (CLeR) 2006. For a legal definition the Regulations must always be consulted, but in simple terms they include:

- **Land causing pollution of Controlled** *Waters (Schedule 1 Regulation 3(c) of the CL(e)R 2006)*

- **Land contaminated with waste acid tar**
- **Land used for oil refining**
- **Land used for the manufacture or processing of explosives**

- **Land subject to Integrated Pollution Control (see Environmental Protection Act 1990 Part I - Prescribed Processes and Substances Regulations 1991 schedule 1 part A)**

- **Land owned or occupied by a defence organisation for naval, military or air force purposes.**
- **Atomic Weapons Establishment land.**
- **Land used for the production or disposal of chemical and biological weapons.**
- **Certain land at Greenwich Hospital.**

- **Land contaminated by radioactivity.**

Where adjacent or adjoining land to a special site has been affected by the contamination so that it meets the definition of “contaminated land”, this land also forms part of the special site.

The legal definition of contaminated land is slightly different if harm is due to radioactivity, as defined in Regulation 5 of The Radioactive Contaminated Land (England) Regulations 2006:

‘any land which appears to the local authority in whose land is situated to be in such a condition, by reason of substances in, on or under the land, that

a) Harm is being caused; or
b) There is a significant possibility of harm being caused’

With regard to radioactivity, ‘harm’ means lasting exposure to any human being resulting from the after effects of a radiological emergency, past practice or past work activity.

APPENDIX 2

THE CONSULTATION PROCEDURE

The Council is required to consult on the revised strategy with colleagues across regulator organisations and services, both internally and externally. The Council has consulted:

Stevenage Borough Council (Internal)

- Finance and Operations
- Housing
- Planning, Development and Regeneration
- Legal and Corporate Services

External Consultees

- Hertfordshire County Council – Planning and Public Health Departments
- Hertfordshire Building Control
- Department for Environment, Food and Rural Affairs (Defra)
- Environment Agency
- Natural England
- UK Health Security Agency

APPENDIX 3

LIST OF POTENTIALLY CONTAMINATIVE LAND USES

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

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

Resin manufacture
Scrap metal dealers
Sewage works
Sheet metal merchants and works
Ship builders
Small arms manufacture
Soap manufacture
Solvent recovery
Stove enamellers
Tank cleaning
Tar and pitch distillers
Thermometer makers
Timber preservatives manufacture
Transport depots
Vehicle manufacture
Vulcanisers
Waste recycling
Zinc works

Rubber manufacture
Sealing compound manufacture
Sewage sludge disposal areas
Ship breakers
Skein silk dyers
Smokeless fuel manufacture
Solvent manufacture
Steel manufacture
Synthetic fibre manufacture
Tanneries
Textile manufacture
Timber treatment
Tin plate works
Tyre manufacture and re-treading
Vulcanite manufacture
Waste disposal
Waste treatment

APPENDIX 4

DETAILED RISK PRIORITISATION METHODOLOGY

This methodology is based on a desk-based assessment of all three elements of a pollutant linkage. The ranked order will place sites according to their potential to represent contaminated land, **BUT NOT** their actual, risk, since the assignment of scores is theoretical only.

Site rankings are not absolute, although trial sites were run with the methodology to attempt to ensure that the worst types of sites are prioritised upwards and vice versa.

The source of the information used to score the 'potential source sites' the 'potential receptors' and the 'potential pathways' are the Council's Geographical Information System (GIS) which includes former land use mapping, current land use mapping and information on geology, hydrology and hydrogeology. Additional data held within the Council's internal electronic databases will also be reviewed where appropriate.

High scores will be given to the source, pathway and receptor factors that would represent the highest hazard. A greater weighting has been given to human health receptors.

Mitigation of potential hazards by virtue of distance of a receptor from the potential source of contamination is addressed as the mitigation offered by any records of historical remediation of a potential source site.

The scoring system is detailed below:

Scores for sources, pathways and receptors

(A) Sources of Contamination *(see Table at foot of Appendix 4 for more detail)*

Probability of Contamination	Example Land Use	Score
Very High	Gas works & landfill sites	10
High	Manufacturing works and petrol stations	8
Moderate	Printers & transport depots	6
Low	Quarry or cemetery	4

(B) Human Receptors

Sensitivity of Receptor	Score
Residential with private garden	10
Residential with communal garden	8
Allotments	8
Schools	6
Public Open Space	4
Commercial	2

(C) Groundwater Receptors

Sensitivity of Receptor	Score
Principal Aquifer (public drinking water supply or Source Protection Zone (SPZ) I)	8
Principal Aquifer (SPZ II)	7
Principal Aquifer (SPZ III or outer)	6
Secondary Aquifer A	5
Secondary Aquifer B	4
Non Aquifer	1

(D) Surface Water Receptors (within 150m)

Sensitivity of Receptor	Score
River, stream or brook	6
Lake	4
Pond	3

(E) Geological Pathways

Probability of Migration	Example Geology	Score
Likely	Chalk or Sands & Gravels	8
Probable	Alluvial deposits (e.g. inter-bedded sands & gravels with peat or silts)	5
Possible	Head deposits	4
Unlikely	Clays	2

Scores for Potential Mitigation

(F) Proximity of Source to Each Receptor

Probability of Migration	Score
On site	1
Within 50m	0.8
Within 100m	0.4
Beyond 100m	0.2

(G) Evidence of Remediation

Probability of Effective Remediation	Score
Since 2006 & fully documented	0.5
Pre-2006 or not fully documented	0.75
None or no records	1

The individual scores are combined by using the following equation:

(A + (B x F) + (C x F) + (D x F) + E) x G = Final Risk Prioritisation Score

Once the various scores for each site have been combined as above each potentially contaminated site will have its own risk prioritisation score and a resultant prioritisation category (see below).

Risk Prioritisation Categories

Sensitivity of Receptor	Score	Explanation
High Priority	**≥ 25**	Sites where, theoretically, there is considered to be a significant possibility of significant harm/pollution existing
Medium Priority	**15-24**	Sites where, theoretically, there is considered to be a strong case for a significant possibility of significant harm/pollution existing
Low Priority	**9-14**	Sites where, theoretically, there is not considered to be a strong case for a significant possibility of significant harm existing, but that the possibility for contamination does exist
Very Low Priority	**0-8**	Sites where there is considered to be no risk of the significant possibility of significant harm or that, that risk is low

Predominant Land Use Classification and Perceived Risk

PREDOMINANT LAND USE CLASSIFICATION	Perceived risk category	RISK SCORE
1 Asbestos manufacture, abrasives and related products.	**VERY HIGH**	**10**
2 Chemical works (organic & inorganic) Manufacture of cosmetics, bleaches, manure, fertilisers & pesticides, detergents, oil, organic based pharmaceuticals, other chemical products incl. glues, gelatins, recording tapes, photographic film. Dyes, pigments. Paint, varnishes, printing inks, mastics, sealants and creosote.		
3 Radioactive materials processing and disposal.		
4 Gas works, coke works, coal carbonisation and similar sites. Production of gas from coal, lignite, oil or other carbonaceous material other than waste.		
5 Refuse and waste disposal sites, including landfills, hazardous wastes, incinerators, sanitary depots, drum and tank cleaning, solvent recovery.		
6 Oil refining and bulk storage of oil and petrol. Gasometers which are not gas works.		
7 Abattoirs and animal slaughtering; Animal products processing into animal by-products e.g. soap, candles & bone works. Tannery, leather goods and skinnery.	**HIGH**	**8**
8 Engineering (heavy and general). Manufacturing of distribution, telecoms, medical, navigation, metering and lighting. Manufacture & repair incl. Ships, aerospace, rail engines and rolling stock. Heavy products manufacture - rolling and drawing of iron, steel & ferroalloys – includes tube works. Manufacturing of electrical and electronic domestic appliances. Manufacture of cars, lorries, buses, motorcycles, bicycles. Manufacturing of engines, buildings & general industrial machinery, including nuts & bolts, gas fittings, wire rope/cable and ordnance accessories.		
9 Metal smelting and refining. Includes furnaces and forges, electroplating, galvanising and anodising. Ferro and aluminium alloys-manganese works, slag works.		
10 Civilian manufacture & storage of weapons, ammunition, explosives & rockets including ordnance. All military establishments including firing ranges (if not specified as civilian.		
11 Recycling of metal waste incl. Scrapyards and car breakers.		
12 Natural and synthetic rubber products including tyres and rubber products. Tar bitumen, linoleum, vinyl and asphalt works.		
13 Paper, card etc. products (packaging). Pulp, paper and cardboard manufacture.		
• **UNDERGROUND STORAGE TANKS ON SITE**		
• **INFILLED LAND – STRONGLY SUSPECTED TO BE PRODUCING GAS, based on available information on age and content of fill.** • Manufacture of clay bricks & tiles, including associated activities e.g. brickfields, also solitary kilns (other than lime kilns). • Extraction of alluvial sediments (sand, stone, clay, peat, marl and gravel) • Quarrying of all stone (including limestone, gypsum, chalk and slate) and ores, includes all opencast mining and slant workings – also slate/slab works, flint works, flint works, stone yards.		

Table 1.01 – PREDOMINANT LAND USE CLASSIFICATION	Perceived risk category	RISK SCORE
14 Airports and similar (Air transport).	**MODERATE**	**6**
15 Concrete, ceramics, cement and plaster works. Concrete, cement, lime & plaster products, also including solitary lime kilns. Tableware & other ceramics.		
16 Dry-cleaning & laundries (larger scale, not usually “High Street”)		
17 Flat glass products manufacture		
18 Photographic processing		
19 Coal storage/depot. Coal mining (and the manufacturing of coke and charcoal) – areas include associated surface activities in area, & coal mine shafts. Areas of mining and single or groups of shafts other than coal, or not specified – including levels, adits, etc also areas associated with mineral railways.		
20 Electricity generation and distribution, including large transfer stations. Power stations (excluding nuclear power stations). Batteries, accumulators, primary cells, electrical motors, generators & transformers.		
21 Printing of newspaper. Printing works other than news print and bookbinding (usually excludes “High Street” printers)		
22 Railway land, including yards and tracks. (Railway tracks – up to 4 tracks wide or 30m)		
23 Sale of automotive fuel. Road vehicle fuelling, transport depots, road haulage and commercial vehicle fuelling, local authority yards and depots. Repair and sale of cars & bikes, parts and motorway services. Transport depots – road haulage, corporation yards.		
24 Sewage treatment works. Sewerage, septic tanks, effluent – including all filter beds.		
25 Textiles manufacturing -Natural and man made textile manufacture and products including hemp rope and linoleum.		
26 Timber treatment works and manufacturing. Sawmills, planning & impregnation (i.e. treatment of timber), wood products, telegraph works, timber yard e.g. veneer.		
27 Computers, office machinery, business/industrial electrical goods. Insulated wire & cable for electrical/tel purposes.		
• **INFILLED LAND – GAS PRODUCTION IS POSSIBLE, based on historical map evidence of infilled quarry, water body or other void.**		
28 Plastic products manufacture, moulding and extrusion; building materials; fibre glass, fibre glass resins and products. Manufacturing of Tar, Bitumen & Asphalt.		
29 Dockyards and wharves. Boat building, wharf and quays, cargo/transport handling facilities – marine or inland.		
30 Brewing and malting. Spirit distilling & compounding. Major food processing, including large dairies. Exceptionally large scale corn/flour milling.	**LOW**	4
31 Constructional steelwork, metal structures & products & building materials.		
32 Cemetery, modern burial ground and grave yard.		
33 All hospitals including sanatoriums but not lunatic asylums.		
• **Quarries and Pits with no evidence of infilling**		
Where a land use is identified that doesn’t fit into the above categories professional judgement will need to be applied.		