Contaminated Land Inspection Strategy

- supported by Technical Document

2016 – 2020

NORTH EAST LINCOLNSHIRE COUNCIL

www.nelincs.gov.uk

North East Lincolnshire Council Contaminated Land Inspection Strategy Executive Summary

It has been estimated that there may be around 300,000 hectares of land in England and Wales where past activities could have led to contamination. Land affected by contamination can be a blight on communities and may present unacceptable risks to human health and the environment (Environment Agency, 2009).

Under Part IIA of the Environmental Protection Act 1990 (Part 2A), local authorities in England are given responsibilities for regulating contaminated land where contamination is causing unacceptable risks to human health or the environment. In April 2012, Central Government published new contaminated land statutory guidance, designed to be simpler, more focused and give greater clarity to councils as to how to decide when land is and is not contaminated land.

The key objectives of the contaminated land regime and the statutory guidance are:

- To identify and remove unacceptable risks to human health and the environment.
- To seek to ensure that contaminated land is made suitable for its current use.
- 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.

It is important to note that the contaminated land regime is only one of several ways in which land contamination can be addressed, for example a large number of sites within the Borough have been successfully remediated through the planning process and it is an aim of this strategy to continue this by encouraging voluntary remediation, redevelopment and regeneration of sites impacted by contaminants.

The strategy outlines a systematic programme of assessing sites of potential concern, in priority order, over the next four years to gain a better understanding of any potential significant risks that may require further consideration under the Part 2A regime. The data collected will also inform the Planning process to ensure any issues are appropriately dealt with through the course of development.

The strategy is divided into two parts, an opening document outlining the key components of the councils approach, supported by a more detailed technical document. Together they have been designed to provide an introduction to the subject of contaminated land and the regulation behind it, provide an outline of the councils aims and objectives and set out how it is going to deliver them whilst contributing to the councils priorities of a Stronger Economy and Stronger Communities.

INTRODUCTION

The Environment Act 1995 inserted contaminated land provisions in to the Environmental Protection Act 1990, as Part 2A. This created a framework for the identification and remediation of contaminated land were contamination was causing an unacceptable risk to human health or the environment. As principal regulators of the regime, the legislation placed specific duties on local authorities to 'cause its areas' to be inspected from time to time for the purpose of identifying contaminated land'.

The purpose of this legislation is to ensure that historically contaminated land is cleaned up in such a manner that it is safe, suitable for a beneficial use, and no longer poses a risk to people's health or the environment.

As part of these measures, there is a requirement for local authorities to prepare and publish a contaminated land strategy, which contains details of how they propose to undertake these duties and to keep it under periodic review.

In April 2012, the Government published updated contaminated land statutory guidance which whilst continuing to take a precautionary approach has been developed to help councils make quicker decisions about whether or not land is contaminated as defined by legislation. The aim is to prevent costly remediation schemes being undertaken unnecessarily, while offering better protection against potential health impacts by concentrating efforts and funding on sites where action is needed. The Council's strategy has been updated to reflect this change in guidance.

It is important to note, that Part 2A is not the only route available to deal with land impacted by contamination. This strategy details the availability of other legislative frameworks and acknowledges the financial constraints the Council faces which have influenced the approach taken. Regulatory effort will continue to be concentrated in circumstances where it will be most effective. This stance is taken in order to bring about environmental improvements where unacceptable or significant impacts from land contamination are present. This revised strategy seeks to do this without entailing excessive financial burdens to taxpayers, landowners and the Council.

While some sites impacted by contamination can be successfully remediated by redeveloping land for future use, others are neither suitable nor scheduled for redevelopment. These sites may be causing unacceptable risks that need to be dealt with through contaminated land legislation.

1.1 General Policy of North East Lincolnshire Council

The council considers environmental issues as important. There are various departments playing their part in helping to reduce the impact of our society on the environment. Whether it is through improving public transport, air quality, increasing

domestic recycling or continual regulation of polluting industry, the commitment is firmly established in various strategies, plans and day-to-day working activities.

The council's priorities are for a 'stronger economy and stronger communities'. The Council's fundamental purpose is to serve citizens and residents, lead the workforce, and promote the area of North East Lincolnshire. Ensuring land affected by contamination is dealt with in a manner that protects human health and the environment whilst bringing previously impacted land back in to beneficial use for residents and business can contribute to both a stronger economy and a stronger community.

To ensure that the Contaminated Land Strategy links in with and supports the corporate priorities and objectives of the Council, the Council will endeavour to:

- Encourage and promote the redevelopment of land affected by contamination, wherever practicable and appropriate.
- Ensure land impacted by the historical activities of the council are dealt with in a clear and transparent manner, in the same way as any other land.
- Ensure, where feasible, that the principle of the 'polluter pays' is followed in the remediation of contaminated land.
- Ensure that the operation of the strategy is transparent, consistent and equitable.

This strategy seeks to secure solutions that are acceptable to all without necessarily resorting to enforcement action, thereby remediating land to a level acceptable by modern standards, with commensurate improvements to public health and local communities. The Council is strongly committed to improving the quality of life of its citizens and protecting the environment, and this strategy provides the platform to drive this vision forward.

Local authority's responsibilities for 'contaminated land' are significant. Local authorities must:

(a) Ensure that their areas are inspected to identify contaminated land

(b) Determine whether any particular site is contaminated land

(c) Act as enforcing authority to ensure that contaminated land is remediated appropriately (except where the site is a special site, in which case the Environment Agency acts as the enforcing authority)

The enforcement role applies only to sites that are identified as contaminated land. When such a site is identified, the authority will:

(a) Establish who is responsible for the contamination

(b) Decide what remedial action is required

(c) Ensure that the remedial action is carried out – either through agreement with the person responsible for the contamination, or by serving a remediation notice

(d) Determine who should bear what proportion of the costs of the remediation

(e) Record information about the regulatory action on a public register

The statutory guidance requires councils to take a strategic approach in the identification of contaminated land and in doing so draws a distinction between two types of inspection:

(a) 'Strategic inspection' - collecting information to make a broad assessment of land within the borough, and then identifying priority land for more detailed consideration; and
(b) 'Detailed inspection' of particular land - to obtain information on ground conditions and to carry out risk assessments, which support decisions under the Part 2A regime, which are relevant to that land.

In carrying out its duties, the authority is required to act in accordance with the Statutory Guidance.

Regulatory role of the Environment Agency

The Environment Agency has four important functions in regulating contaminated land:

(a) To assist local authorities in identifying contaminated land, particularly where water pollution or radioactivity may be involved

(b) To provide site specific guidance to local authorities on contaminated land

(c) To publish periodic reports on the State of Contaminated Land in England and Wales, were progress with the regime is analysed.

(d) To act as enforcing authority when a site is designated as a Special Site

A Special Site is a site that meets one of the statutory definitions. They are not necessarily more contaminated than other kinds of site but may lend themselves to an area of specialism of the Environment Agency or where they may have had some former regulatory responsibility.

Other Regulatory Regimes

The subject of contaminated land can be complex and whilst the Part 2A legislation forms the principal driver for this strategy, there are other legislative regimes that can be used to assess and effectively deal with land contamination.

Section 1.5 of the statutory guidance states that 'enforcing authorities should seek to use Part 2A only where no appropriate alternative solution exists'. The council is therefore free and encouraged to use other legal regimes if more appropriate, these include:

- Town & Country Planning Act 1990
- Waste Management Licensing (Part 2 of the Environmental Protection Act 1990)
- Statutory Nuisance (Part 3 of the Environmental Protection Act 1990)
- Water Resources Act 1991
- Radioactive Substances Act 1993
- Pollution Prevention and Control Act 1999
- Building Regulations 2010
- Environmental Damage (Prevention and Remediation) Regulations 2009
- Environmental Permitting (England and Wales) Regulations 2010

Cost Recovery

The Council will have regard to the principles and approaches found within section 8 of the statutory guidance when making any cost recovery decision and also the circumstances of each individual case which can often prove complex.

The Council is required to ensure that legally contaminated land is remediated and, where it undertakes the work itself, recover its reasonable costs incurred from those that are deemed liable. If by doing so this would cause 'hardship' the council may either, waive or reduce the amount of money it seeks to recover. Any non-recovered costs will become the responsibility of the council.

The authority will aim for an overall result which is fair and equitable as possible to all who may have to meet the costs of remediation, including national and local taxpayers.

THE LOCAL AUTHORITY STRATEGY: AIMS AND OBJECTIVES

North East Lincolnshire Council's priorities are clear:

'STRONGER ECONOMY AND STRONGER COMMUNITIES'

To achieve this vision there is a need to work in new ways with partners in the public and private sectors, the voluntary and community sector, and with individuals, families and communities. We must address the issues we face with creativity and innovation if we are to secure the outcomes we desire.

We want North East Lincolnshire to be seen as an attractive place to live, work, visit and invest. We know that we have significant and exciting opportunities for investment and growth in North East Lincolnshire.

The Council's stronger economy / stronger communities priorities are underpinned by a key strategic framework comprising the following:

- health and wellbeing strategy
- economic strategy
- prevention and early intervention strategy
- financial strategy
- safeguarding

Our outcomes framework is the means by which our priorities will be translated into action and delivered, developed and achieved in conjunction with our partners across sectors. This is intended to drive a culture of evidence-based decision-making that will enable elected members to take informed key decisions, knowing the risks and the opportunities for citizens, communities and businesses. Our commissioning plan will ensure and foster clear links between the outcomes framework and the resources available to achieve them.

The framework sets out the five high level outcomes that we and our partners aspire to achieve to ensure prosperity and wellbeing for the residents of North East Lincolnshire. The five outcomes are that all people in North East Lincolnshire will:

- Enjoy and benefit from a strong economy
- Feel safe and are safe
- Enjoy good health and well being
- Benefit from sustainable communities
- Fulfil their potential through skills and learning

2.1 Aims of the Contaminated Land Inspection Strategy

This Strategy sets out how the Council will continue to address its duties under section 57 of the Environmental Protection Act 1990, be compliant with the Statutory Guidance and support the five outcomes.

The Council wishes to identify and deal with contaminated land in the most practical and efficient way and ensure that the most pressing and serious problems are addressed. With this in mind, the Council has identified the following four aims:

To protect human health and the environment

To encourage voluntary remediation, redevelopment and regeneration of sites impacted by contaminants

To fulfil the council's responsibilities with respect to implementing environmental legislation

To have a body of information for 'Contaminated Land' that is useful and accessible

2.2 Key Objectives and Actions

Specific objectives and actions to help achieve the aims set out above are presented here.

To survey the Borough and identify areas of land that may meet the legal definition of contaminated land
Actions
Identify sites of potential concern and enter details on the councils contaminated land database
Undertake a stage one risk assessment and prioritise sites according to their relative risk and place in categorise from Very High – Low.
Undertake a stage two risk assessment, by gathering further information as to the presence of potential pathways and prioritise site ready for detailed inspection. (a) Complete documentary review including site reconnaissance of **high priority sites** in order to evaluate whether a detailed inspection, supported by an intrusive investigation, may be

required. Exercise to be completed by March 2019 (b) Complete documentary review including site reconnaissance of **medium priority sites** in order to evaluate whether a more detailed inspection, supported by an intrusive investigation may, be required. Exercise to commence upon completed of task (a)
Following detailed inspection, in accordance with the statutory guidance, assign site category 1 to 4, i.e. does the site meet the definition of contaminated land?

Encourage a proactive approach amongst landowners and potential polluters towards the investigation and remediation of contamination land.
Actions
Work with landowners/polluters to encourage voluntary action wherever possible, to avoid regulatory intervention under Part 2A legislation.
Provide site-specific advice to aid decision making on a case by case basis.
Ensure effective risk communication processes are in place when dealing with contaminated sites.

Encourage the regeneration and redevelopment of sites impacted with contamination through the planning system
Actions
Work closely with the Planning Department, providing information as to the location of suspected contaminated sites, provide technical support on a site specific basis and protect health and the environment.
Encourage the redevelopment of sites impacted by contamination by engaging with planning applicants at an early stage, informing them of any requirements, providing guidance and advice.
Review planning procedures regularly in accordance with National Planning Policy
Develop planning guidance to support the council's Local Plan. Exercise to be completed by December 2017.
Provide response to planning applications within 21 days of being consulted by the Planning Department.

Ensure the Inspection Strategy and its implementation meet the requirements of Part 2A Environmental Protection 1990
Actions
Adopt a rational, ordered and efficient approach to contaminated land inspections
Focus on identifying the most pressing and serious problems first
Keep the strategy under periodic review to ensure it continues to fulfil the council's statutory obligations, is appropriate to the requirements of the Council and meets the needs of the local community

To establish and maintain efficient liaison and information exchange within the Council, its partners and with external organisations
Actions
Ensure the contaminated land database is promptly updated as new sites are brought to the attention of the council.
Provide easy access to the contaminated land strategy and update summary contents of the public register through the council's website.
Review and maintain effective liaison with internal directorates and partners; promote awareness of contaminated land issues and provide site specific advice.
Respond to requests for site specific information from external organisations within 10 working days of receipt.

The Council will continue to investigate and encourage appropriate remediation of sites within the Borough predominately through the planning process, which is deemed to be the most efficient and cost effective way of bringing potentially contaminated land back into beneficial and economic use.

The council will only consider a detailed inspection of a site, if it is felt, from the information it has gathered that the land poses a significant risk to human health or the environment and were no alternative solution exists.

LOCAL AUTHORITY PRIORITIES

In this section of the strategy, the Councils priorities and the reasoning behind these priorities are set out, with reference to:

- The Council's overall aims
- The background information presented in Sections 1 and 2 of the technical support document

We also explain how these priorities are incorporated into the procedures for identifying contaminated land. These procedures are detailed in Sections 4 and 5 of the technical support document.

The process involves identifying, making decisions on, and taking appropriate action to deal with land contamination in a way that is consistent with government policy and legislation within the UK. The approach follows the technical framework contained within 'The Model Procedures for the Management of Land Contamination, CLR 11' (Defra and Environment Agency, 2004).

3.1 Priorities

The work to identify and seek remediation of contaminated sites will be directed by a clear order of local priorities based upon the potential risk to receptors, as established in the original strategy. The council's priorities can be illustrated in a hierarchy as shown to the right.

The Council's hierarchy of priorities

A number of sites have been identified as having contaminants in or on them. However, because there are either no pathways or receptors present they are not considered further for formal inspection. These sites however, will remain on the council's database in case their circumstances change and cause the council to reassess its decision. The data is also utilised to inform the Planning process.

3.1.1 Identifying Potentially Contaminated Sites

Although a large number of sites have been identified, the Council will continue to be vigilant for any new sites that may pose a potential concern. This process will be undertaken by means of a desktop review of available records and will be carried out in accordance with national guidance and recorded on the council's database. Additional written sources of data, as detailed in the Technical Support document

(Appendix 2 Table B), will supplement any available historical land use data.

3.1.2 Prioritising Sites for Detailed Inspection

The local authority's experience of Part 2A to date is that it can be resource intensive. The Council acknowledges the value of resources in particularly, during times of financial restraint. The Council will continue to focus its resources on sites, which may prove harmful to human health. However, due to the nature of certain contaminants it is likely that more than one receptor will be evident on any one site i.e. controlled waters, ecosystems and property in addition to human health, so sites that pose a risk to the environment will initially be dealt with in this manner. Once all priority sites relating to human health have been assessed then the inspection regime will consider other sites. Should any site regardless of the type of receptor require urgent assessment, then this will become a priority.

Existing guidance includes Department of Environment Transport and Regions guidance CLR 6; 'Prioritisation and Categorisation Procedure for Sites which may be Contaminated'. The following extract outlines the approach to prioritisation.

CLR 6 Priority Categories

Priority Category 1	Site probably or certainly not suitable for present use and environmental setting. Contaminants probably or certainly present and very likely to have an unacceptable impact on key targets. Urgent action needed in the short-term
Priority Category 2	Site may not be suitable for present use and environmental setting. Contaminants probably or certainly present and likely to have an unacceptable impact on key targets. Action may be needed in the medium term
Priority Category 3	Site considered suitable for present use and environmental setting. Contaminants may be present but unlikely to have an unacceptable impact on key targets. Action unlikely to be needed whilst site remains in present use or otherwise remains undisturbed
Priority Category 4	Site considered suitable for present use and environmental setting. Contaminants may be present but very unlikely to have an unacceptable impact on key targets. No action needed while the site remains in present use and remains undisturbed

To ensure that the council's priorities are translated into rational and systematic action, the Council has implemented a two-stage prioritisation process utilising the site prioritisation tool contained within the council's computer database. The database scores sites using a similar methodology as described above to complete a contaminant – pathway – receptor assessment in order to prioritise each site.

In brief, stage one of this process considers the types of industrial uses the site has been subjected to and the sensitivity of the potential receptors. Stage 2 refines the priority list by carrying out a pathway or exposure assessment to determine whether a potential contaminant linkage exists. This process, in part, will also count as part of

a detailed inspection. Where appropriate, a site reconnaissance will be undertaken which may lead to an intrusive site investigation being undertaken. This process is explained in more detail within sections 4 and 5 of the technical support document.

At this stage, the Council will contact current landowners concerning specific sites to ascertain whether further information is available concerning the condition of the land and if required to, obtain access. In considering a site for intrusive detailed inspection the Council will consider the following, supported by the provisions of Table A in Appendix 2 of the Technical Support Document, to aid the decision making process.

1. The Council considers areas of residential development within 50m of a site boundary as high priority. This is because residents of this area are potential receptors if a contaminant linkage is determined

2. Schools, playgrounds and allotments within 50m of a site boundary are considered a priority

3. Priority will be given to areas containing a natural surface water feature (river, stream, pond, lake, and canal) within 200m of site boundary

4. Sites located within Zone 1 or Zone 2 Source Protection Zone and within 100 m of a private potable abstraction point

5. Sites located within 250m of any protected habitat (e.g. A Site of Special Scientific Interest (SSSI)

6. Residential development, school, playground or allotment within 250m of site boundary

7. Areas in agricultural or sites in amenity use, including parks

8. Industrial or commercial development within 50m of site boundary

9. Significant surface water feature within 500m of a site boundary, to which site run-off is likely to drain

10. Site located within Zone 3 Source Protection Zone

11. Sites within influencing distance of property including the historic environment

The purpose of a site investigation is to satisfy the Council in the execution of its statutory duties as to whether a site meets the statutory definition of ‘contaminated land’ that is to say it is, or poses a significant risk to a receptor. Throughout this process of prioritisation and inspection, if any sites are suspected of causing significant harm these sites will take priority.

PERFORMANCE MONITORING

4.1 Monitoring the Effectiveness of this Strategy

There is a clear need for all activities to be co-ordinated and monitored. Through its performance management system and service planning, the Council will monitor progress and ensure that the strategy is delivered.

4.1.1 Monitoring Activity

There is a need for the Council to demonstrate that it is fulfilling its obligations with respect to contaminated land inspection and reporting under Part 2A. Officers will evaluate progress of the strategy on an annual basis and present the following data to the Portfolio Holder for Leisure, Citizens and Public Protection, of activities undertaken the previous year.

- The number of new sites added to the councils database
- The number of sites assessed as part of its strategic inspection process
- The number of sites where a detailed inspection has been undertaken
- The number of planning applications, which have been reviewed and proceeded to have had contaminated land comments/conditions recommended.
    - ❖ Of the above figure, the number responded to within 21 days of receipt.

Periodically, the Environment Agency (EA) is required to prepare and publish a report on the 'State of Contaminated Land' in England. The purpose of this report is to assess the scale and significance of the problem and the effectiveness of measures put in place to address it. To allow the EA to do this the Council is required to supply data to it from the information obtained from its inspection duties including an annual summary of its regulatory activities.

Review Mechanisms

This section provides an outline of the factors considered when reviewing the status of land of potential concern and the mechanism for reviewing the written strategy.

5.1 Reviewing Inspections and Responding to New Information

The process for identifying potentially contaminated land will be an on-going activity. Further information may become known at any time, and the Council will take into account information obtained from or volunteered by any interested parties. New and updated information will also often be provided as a result of the Council's regular exchanges of information between functions (in particularly between the Pollution Team and Planning) and with the Environment Agency (EA) and other statutory bodies.

Sections 4 and 5, of the technical support document explain how the Council will identify potentially contaminated land and carry out inspections to determine which sites are contaminated land. The Council will make decisions about contaminated land based on information available at the time and the lands 'current use'. Current use for the purposes of Part 2A means 'any use to which the land is currently or likely put and which is consistent with any existing planning permission use' (Defra, 2012). This includes:

- Temporary uses permitted under planning legislation
- Reasonably likely future uses that would not require a new or amended grant of planning permission
- Likelihood of informal recreational use of land authorised and unauthorised e.g. children playing on the land. When considering a future use which qualifies as 'current' the Council will establish that this is in accordance with any existing planning permission, including any conditions relating to cleaning up or preventing contamination
- For agricultural uses, 'current agricultural use' does not extend beyond the growing or rearing of crops or animals, which are routinely grown or reared on the land.

When further information is obtained for a site, the Council will check the computer database to determine whether the site concerned has already been assessed. If it has, the site priority will be reviewed in light of the new information. If the site has not previously been identified, the Council will follow the procedure outlined in Section 3 of the technical document, including the new information in order to determine its priority category. If the site has already been subject to detailed

inspection, the Council will review the inspection and the decisions made in the light of the new information.

5.2 Review of the Inspection Strategy

A full review of the strategy will take place every four years to ensure that the strategy continues to fulfil the council's statutory obligations, continues to support the council's strategic priorities and meets the needs of the local community. However, in the following circumstances an earlier review may be considered necessary:

(a) There are significant changes to primary legislation

(b) There is a significant change in statutory guidance

(c) There is the establishment of significant case law or other precedent

(d) There is a significant change to council policy

This will be supported annually by recording minor updates to reflect changes in non-statutory guidance, best practice and practical experience.

Pollution Control
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Technical Support Document

2016 - 2020

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SECTION 1
INTRODUCTION

The Environment Act 1995 inserted contaminated land provisions in to the Environmental Protection Act 1990, as Part IIA. This created a framework for the identification and remediation of contaminated land were contamination was causing an unacceptable risk to human health or the environment. The legislation came into effect in 2000 when relevant Secretary of State guidance was first published. As principal regulators of the regime, the legislation placed specific duties on local authorities to 'cause its areas to be inspected from time to time for the purpose of identifying contaminated land'.

The purpose of this legislation is to ensure that historically contaminated land is cleaned up in such a manner that it is safe, suitable for a beneficial use, and no longer poses a risk to people's health or the environment.

As part of these measures, there is a requirement for local authorities to prepare and publish a contaminated land inspection strategy, which contains details of how they propose to undertake these duties and to keep it under periodic review. North East Lincolnshire Council adopted its first strategy in 2001.

In April 2012, the Government published updated contaminated land statutory guidance which whilst continuing to take a precautionary approach has been developed to help councils make quicker decisions about whether or not land is contaminated, as defined by legislation. The aim is to prevent costly remediation schemes being undertaken unnecessarily, while offering better protection against potential health impacts by concentrating efforts and funding on sites where action is needed. The Council's strategy has been updated to reflect this change in guidance.

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1.2 Regulatory Context

Part IIA of the Environmental Protection Act 1990 (Part 2A) was introduced in April 2000, and gives specific legal powers (and duties) to local authorities to identify and deal with contaminated land. The primary purpose of the legislation is to deal with the historical legacy of land contamination that has arisen from past, largely industrial activities. It is retrospective, in that certain persons or companies can be held liable for their actions that occurred in the past. The legislation is consistent with the 'polluter pays principle' since it places the financial responsibility for dealing with the contamination with the polluter, where they can be found.

The government has produced Statutory Guidance, in accordance with Section 78YA of the Environmental Protection Act 1990, which is legally binding and must be followed by enforcing authorities. The regulations were widened in 2006 to include land contaminated by radioactivity.

In April 2012, the Secretary of State for Environment, Food and Rural Affairs issued new, updated, Statutory Guidance to explain how Part 2A should be implemented and the legal tests for when land is considered to be contaminated land. Separate Statutory Guidance covering radioactive contaminated land was also issued in April 2012, by the Secretary of State for Energy and Climate Change. Although the authority's duty to inspect its area under Part 2A has been modified in respect of radioactivity, in contrast to the inspection duties for contaminated land, radioactivity applies a 'reasonable grounds' approach, in that the local authority is only obliged to inspect such land where it has reasonable grounds that radioactivity may exist. Radioactive contaminated land if found, is to be designated as a Special Site with regulatory responsibility passing to the Environment Agency.

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

(a) To identify and remove unacceptable risks to human health and the environment
(b) To seek to ensure that contaminated land is made suitable for its current use
(c) To ensure that burdens faced by individuals, companies and society as a whole are proportionate, manageable and compatible with the principles of sustainable development (Defra, 2012)

The following sections provide a summary and explanation of the main provisions of the contaminated land legislation. It is not intended to be a definitive or exhaustive guide, and it has no legal force. The reader is directed to Part IIA Environmental Protection Act 1990 (as amended) and the Contaminated Land Statutory Guidance dated April 2012.

1.2.1 Funding

Previously, Central Government provided a means for local authorities to apply for additional funding to assist with the investigation and remediation of sites formally determined as 'contaminated land' under Part 2A. In 2013, it was announced that this this funding opportunity would be severely cut from April 2014 and withdrawn completely by April 2017. Councils are now left to fund the investigation of sites out of their own budgets. This has led the council to review the way in which it implements its contaminated land inspection strategy preferably seeking solutions through planning, regeneration schemes and working closely with landowners to encourage voluntary remediation wherever possible.

However, should a site arise were unacceptable risks have been clearly identified and where there is no alternative solution to deal with the issue, then the Council will proceed to take action under contaminated land legislation. On a site-by-site basis, a business case will be developed to secure appropriate council funding to determine whether the land meets the legal definition of contaminated land.

1.3 What is 'Contaminated Land'?

In general terms, contaminated land would usually mean land where industrial or other human activities have resulted in the presence of substances in the ground with potential to cause harm to human health, structures, or the environment. However, for the purpose of this strategy the term contaminated land means something more specific than this.

The duties and powers of local authorities extend only to land that falls within the statutory definition of contaminated land – enforcement action under Part 2A cannot be taken where land does not meet the legally definition of 'Contaminated Land'.

The definition of contaminated land from Part IIA Environmental Protection Act 1990 (as amended), Section 78A is:

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

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 is likely to be, caused'

Where *Harm* is attributable to radioactivity the legislation was modified in 2006 to include:

'Any land which appears to the local authority in whose area it is situated to be in such condition, by reasons of substances in, on or under the land, that:

a) harm is being caused, or
b) there is significant possibility of harm being caused'

The meanings of the terms within the definition are important. The statutory guidance gives quite detailed explanations of what each term in the definition means. To aid understanding, a summary of these terms are provided within the Glossary.

1.3.1 Principles of contaminant linkages: Contaminant, pathway and receptor

In order to be sure that any harm, or pollution, is as a result of the presence of substances in, on or under the land, the local authority will check to see whether there is a demonstrable or plausible means for the substance (termed the

'contaminant') to come into contact with something that may be harmed (the 'receptor'). This means of contact is termed the 'pathway'. Where a contaminant, a receptor and a pathway exist together, this is called a contaminant linkage. If there is no contaminant linkage, the substance cannot cause harm. This is pictorially represented in Appendix 1 Fig A.

By means of an example, consider an industrial site that has become contaminated with lead (a toxic metal). The receptor of concern is the people that work on the site. To be harmed by the lead, the people must be able to come into physical contact with the soil that contains the lead – they must be able to inhale soil dust, or get soil in their mouths. If all the contaminated soil is covered by buildings, concrete and tarmac, then the people cannot be exposed to the soil. There is therefore no contaminant linkage, and no risk of harm. In this case, even though a potentially harmful substance is present, the site would not legally meet the definition of contaminated land.

1.3.2 Principles of risk assessment

Risk assessment is the means by which the Council will determine whether land appears to be contaminated land in accordance with the definitions above, in particular whether there is a significant contaminant linkage.

Risk assessment is a structured method for making decisions in circumstances where there is uncertainty. In risk assessment, we distinguish between the concepts of hazard and risk:

> **Hazard** is an attribute or situation that in particular circumstances could lead to harm
>
> **Risk** is a combination of the probability, or frequency, of occurrence of a defined hazard and the magnitude of the consequences of the occurrence (i.e. how likely is the hazard, and how bad would it be if it happened)

The contaminant-pathway-receptor analysis described above is used to identify the hazard (the contaminant linkage). The risk assessment considers how likely the contaminant linkage exists and how severe the consequences would be. This could involve, for example, considering how much contaminant might be able to come into contact with the receptor, over what time, and how sensitive the receptor might be to the contaminant. With reference to Figure 1 below, at the end of the process the assessor will be able to determine whether the contaminant linkage is a significant contaminant linkage, and therefore whether the site meets the legal definition of contaminated land.

Figure 1: The concept of a contaminant linkage

1.3.3 Approach to remediation – suitable for use

It is Government policy that land should be remediated to a standard were it is suitable for its current use, and significant harm or significant pollution of controlled waters can no longer occur. This is to be achieved by considering the contaminant linkages that have been identified and ensure that each is treated such that the linkage is broken – for example:

- remove or treat the contaminant
- break or remove the pathway
- protect or remove the receptor

In addition, remedying any effects that had already occurred as a result of the contaminant linkage would be required.

When identifying the best method for remediation, the local authority will use the concept of 'best practicable technique (BAT)'. Such techniques will have proven effectiveness, be practical to achieve in the particular circumstances of the site, and will be durable over a timescale appropriate to the problem. The authority will also consider the cost of the remediation in proportion to the severity of the harm or water pollution.

SECTION 2
BROAD CHARACTERISTICS OF NORTH EAST LINCOLNSHIRE

2.1 Geographical Location

North East Lincolnshire is located on the eastern side of central England, on the south bank of the Humber Estuary as illustrated in Figure B of Appendix 1.

2.2 Brief Description/History

King John granted Grimsby's first Royal Charter in 1201. Cleethorpes Urban District Council was established in 1894, becoming a Municipal Borough Council in 1936. In 1974, Cleethorpes District Council was formed following amalgamation and Queen Elizabeth II granted Borough status in 1975. Grimsby Rural District Council was established in 1894 and by 1974, it had become a Borough Council. North East Lincolnshire Council was formed as a new unitary authority in April 1996 when the two districts of Grimsby and Cleethorpes merged dissolving Humberside County Council. It serves a population of circa 160,000 residents over an area of 74 square miles and incorporates the Ports of Grimsby and Immingham, which form an integral part of the areas commercial heritage.

The first dock in Grimsby was named the Haven Dock, completed in the year 1800 and regarded at that time as being the largest of its kind in the country. The Royal Dock was completed by 1852 followed by the No.1 Fish Dock in 1856 and No.2 Fish Dock in 1877. Both the Alexandra and Union Docks followed in 1879. With the advent of the railway in the nineteenth century Grimsby saw rapid expansion of its Port facilities and following its success, the Central Railway Company set about plans to build additional Port facilities at the neighbouring settlement of Immingham. The deep-water facility was completed in 1912.

Once famous for its fishing industry, timber imports and coal export, Grimsby has carved a new identity in recent years as a centre for food processing, pharmaceuticals, chemicals and renewable energies.

The Port of Immingham, operated by Associated British Ports (ABP), the UK's largest and leading ports group has seen major investments in recent years including docks and specialist terminals. The Port has direct routes to Europe, North and South America, Africa, Australia, the Middle East and the Far East.

Cleethorpes is an important centre for leisure and tourism in North East Lincolnshire and the wider region and continues to develop as a traditional seaside resort.

2.3 Size and Population Distribution

North East Lincolnshire covers 19,185 hectares of varied landscapes with a population density of approximately 8.1 persons per hectare. The figures in Table 1 below show that 86% of the population is concentrated in the larger settlements of

Grimsby, Cleethorpes and Immingham. Grimsby and Cleethorpes are continuous residential areas and Immingham is a satellite town found seven miles north-west of Grimsby.

Table 1: North East Lincolnshire population statistics and trends

Total Estimated Population (2014)	159,804 (Office of National Statistics)	
Main Population Centres	Cleethorpes Town	39,505
	Great Grimsby	88,243
	Immingham Town	10,750

2.4 Industrial History

Historically, industry in North East Lincolnshire focused around both agriculture and Port related activities, the latter including fishing and fish processing, coal export and timber import. Ancillary trades included foundries, engineers, shipbuilding, rope making and an array of other factories benefiting from both the trade brought in by the Ports and the expansion in population. A large Paper Mill was present on the East Marsh area of Grimsby and Maltings and Breweries where commonplace. Historical records indicate the presence of electricity power stations at two locations within the Borough and Town Gas Works at a further three. Other notable industries include shallow mineral extraction for clay, sands, and gravels for the building trade during the 19th and 20th centuries of which several are known to have been utilised for the disposal of municipal wastes.

Geographically in the parish Waltham, can be found the former ‘Grimsby Airfield’ originally established as a private flying club, later expanded upon and utilised during the Second World War by the R.A.F. The airfield is recorded as serving both the ‘Wellington’ and ‘Lancasters’ of 142 and 100 squadrons. In the immediate post-war years the hangars were used for storage and part of the flying field reverted to agricultural use. In later years, improvements to the A16, with a bypass for Holton-le-Clay, reclaimed part of the eastern side of the site. Some airfield buildings still evident today and have been converted to commercial use.

2.5 Land in Local Authority Ownership

The Council owns a significant amount of land throughout the Borough. Digital mapping showing this ownership is used in conjunction with historic mapping and previous land use data to determine what land in the Councils ownership may have been impacted by contamination. Dealing with council owned land in a clear and transparent way, treating it in the same manner as would any other piece of land is a positive reflection of the councils approach to environmental matters.

2.6 Protected locations (natural habitats etc.)

The coastal area of North East Lincolnshire provides a rich array of habitats with sand dunes, salt marsh, sand flats and mudflats. Owing to the large number of migratory wildfowl that arrive here during the winter months to feed on the abundant invertebrate life that dwells in the mudflats, this area is a globally important wetland habitat that has been designated as a Site of Special Scientific Interest (SSSI), Special Protection Area (SPA), Special Area for Conservation (SAC) and Ramsar site.

Inland, the western edge of the A18 acts as the boundary for the Lincolnshire Wolds designated an Area of Outstanding Natural Beauty (AONB) that incorporates an area of some 20% of the borough and encompasses the quiet, rural villages of Irby-Upon-Humber, Beelsby, Hatcliffe, East Ravendale and Wold Newton.

A number of freshwater habitats can be found in the area, providing a home for species that are now uncommon, such as the water vole and kingfisher. As well as inhabiting a number of other watercourses, both species are found along the Laceby Beck and River Freshney, which form a vital 'green corridor', that is as important for recreation as it is for wildlife.

2.7 Key property types e.g. the historic environment

North East Lincolnshire has a rich and diverse historic environment. Sites from the Mesolithic (middle Stone Age) through to the modern era are known, with particularly important collections of sites dating from the Iron Age, Roman, Medieval and 19th century. As of 31st August 2016 there are:

- 222 Listed Buildings (12 Grade One, 13 Grade Two Star)
- Scheduled Monuments of national importance, 10 wholly within the Borough and 1 partly within.
- 1 Registered Park and Garden (Grade Two Star)
- 16 Conservation Areas
- The Lincolnshire Wolds, Area of Outstanding Natural Beauty (AONB)

Many of the listed buildings are associated with the industrial past of Great Grimsby, and so have a raised potential to be associated with land contamination. For example, low levels of asbestos contamination of soils were an issue during recent Environment Agency works at the Grade Two Star listed Grimsby Haven Lock (also known as Rennie's Lock).

None of the Scheduled Monuments are associated with industrial activity, and the Registered Park and Garden was laid out on agricultural fields in the 19th century.

The conservation areas and AONB may contain isolated areas of contamination, particularly the latter where many former extraction pits have been used for both authorised and unauthorised waste disposal.

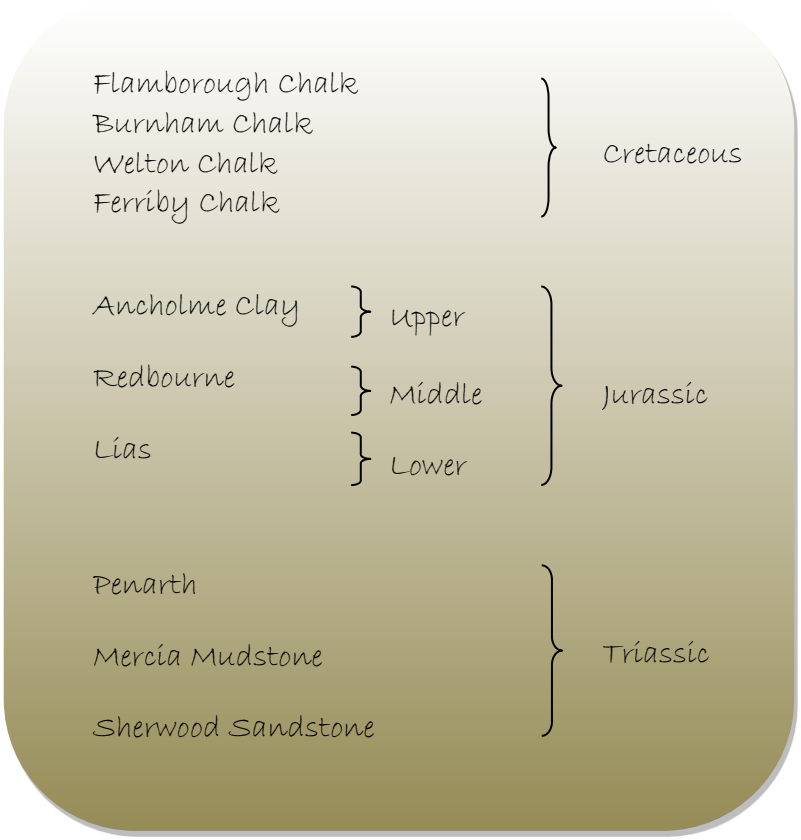
2.8 Broad Geological and Hydrogeological Characteristics

The solid geology of North East Lincolnshire consists of chalk and earlier sandstone and mudstone formations from the Triassic period. Younger Jurassic Ancholme Clays and Lias make up the foundations for the chalk capped Lincolnshire Wolds, which lie to the western edge of North East Lincolnshire. The majority of land to the east of the Wolds is made up of glacial Alluvium and Till which has given the area a low-lying flat plain of undulation boulder clay. Towards the coast, the build-up and settlement of marine deposits were exploited for brick and tile making due to their fine grain. The coastal blown sands deposited here are a direct result of the constant erosion, transport and deposition of material from the Holderness coast and the Spurn Point Spit.

The underlying Chalk forms one of the UK's principal aquifers and provides the majority of the areas drinking water. The nature of the chalk and the low-lying land mean groundwater flows relatively close to the surface and as such is at greater risk from sources of pollution.

2.8.1 A simplified order of Strata

Presented below is a simplified representation of the order strata in which they were deposited in order of age. The top represents the youngest formations.



2.9 Key Water Resource and Protection Issues

Groundwater is the most important source of water in the area. Chalk boreholes for public supply were first drilled during the second half of the 19th Century and abstraction from the chalk aquifer for public supply and industry increased rapidly during the 20th Century.

Anglian Water and other businesses abstract groundwater at numerous locations from the chalk aquifer, which lies beneath North East Lincolnshire. Additional abstraction is from the Louth Canal into the Covenham Reservoir, and from the River Ancholme into the Cadney Reservoir. Waters that flow into the River Ancholme are regulated by transfers from the River Witham that, in turn, is supported by transfers from the River Trent.

In addition to the regulatory work undertaken by the Environment Agency who are the statutory body responsible for the protection and management of groundwater resources in England, the Pollution Team checks the water quality of private drinking

water supplies in the area as part of its duties under the Private Water Supply Regulations 2009 and data is submitted annually to the Drinking Water Inspectorate.

2.9.1 Surface Waters

Contamination can reach surface waters through rainwater runoff from adjacent land, which may have contaminating substances present, and through any contaminated groundwater which may contribute to the base flow of the surface watercourse.

Historical records indicate that water from springs in the Borough have been used extensively, however they also have the ability to form pathways by which any pollution that has already entered the groundwater could be transported to the surface watercourses.

Surface waters such as the River Freshney, Laceby Beck and Buck Beck cross the Borough of North East Lincolnshire. These waters are not used for the abstraction of public drinking water supply but in certain areas, they form the habitats for many forms of wildlife and ecological systems. The quality of the surface waters within the Borough is therefore important. The Environment Agency monitors rivers and streams and classifies them from very good, 'Grade A' through to bad, 'Grade F'. The watercourses tested in North East Lincolnshire have been classified from good to very good for their Chemistry and from fairly good to good for their biology.

The Water Framework Directive has introduced a comprehensive river basin management planning system to help protect and improve the ecological health of rivers, lakes, estuaries and coastal waters. This is underpinned by the use of environmental standards to help assess risks to the ecological quality of the water environment. North East Lincolnshire is covered by the Humber River Basin District Management Plan.

The coastal area is internationally recognised for its important natural habitat, being a site of Special Scientific Interest, Special Protection Area, Special Area of Conservation and Ramsar site in recognition of its importance for migrating birds and waterfowl. It is also a valued and attractive tourist and recreation destination. The beach at the resort of Cleethorpes regularly achieves 'Blue Flag' status, which is a prestigious, internationally recognised award that signifies excellent bathing water standards, compliant with the requirements of the 76/160/EEC Bathing Water Directive.

2.9.2 Hydrogeology

Hydrogeology is the study of water in or moving through soils and rock formations. Geological strata, which contain groundwater in exploitable quantities, are called aquifers. The classifications of Aquifers are dependent upon their ability to transmit waters.

Within North East Lincolnshire, the underlying Chalk can store and transmit large quantities of water, and is thus classified as a Principal Aquifer that is extremely important for public water supply.

2.9.3 Groundwater Vulnerability

Groundwater is usually of high quality and often requires little treatment prior to use. It is however, vulnerable to contamination from both diffuse and point source pollutants, from both direct discharges into groundwater and indirect discharges into or onto land. The vulnerability of the groundwater from pollution is largely dependent on the permeability of soils and rocks that surround and cover the water bearing deposits.

Within North East Lincolnshire, the areas where the groundwater is most vulnerable are the areas where no protective deposits exist above the water bearing aquifer. This is the case in the western area of the North East Lincolnshire, where the underlying Chalk outcrops along the Lincolnshire Wolds. Progressively towards the coast the chalk aquifer is afforded some protection by low permeable drift deposits e.g. clays. However, by the nature of the drift deposits there is some variability including sand and gravel deposits with the potential to create preferential pathways through these deposits to the underlying chalk.

2.9.4 Ground Water Source Protection and Safeguard Zones

The Environment Agency is responsible for protecting surface and groundwater from contamination. For ground water, the Agency has defined Source Protection Zones (SPZs) around public water supply and private wells or boreholes that supply water to potable or equivalent standards, within which potentially polluting activities are restricted. These zones are based on computer-simulated models, which theoretically take into account the dispersion time of typical contaminants. The Environment Agency has defined Several SPZs for boreholes and abstraction points for drinking water supply in North East Lincolnshire.

Appendix 1, Figure C shows the total catchment area for the Lincolnshire Wolds Aquifer. Pollutants within zone one could affect an abstraction point within 50 days and within zone two within 400 days.

Safeguard zones (SgZs) are identified around groundwater abstractions used for potable supply that are at risk from pollution. Within SgZs, existing measures are to

be strictly enforced and there is a focus on new voluntary measures to prevent further deterioration and to help improve groundwater quality. One such zone has been designated for the catchment area serving Little Coates abstraction wells, Grimsby.

2.9.5 Normal Background Concentrations of Contaminants

The Statutory Guidance states that the Part 2A regime should not apply to land with levels of contaminants in soil that are common place and widespread throughout the UK and for which in the majority of cases there is no reason to consider that there is an unacceptable risk. In April 2013, Defra published a report and Technical Guidance Sheets on Normal Background Levels of Contaminants in English Soils. (British Geological Survey, 2012)

It is important to note that due to the industrial heritage within North East Lincolnshire, background contamination levels can be slightly elevated in certain areas and therefore these factors are taken into consideration when investigating sites under Part 2A legislation and are considered on a site-specific basis under the Planning process.

3.1 Implementation

In 2001, the Council set a series of objectives supported by a number of target dates for key elements of the strategy. Target dates were included for the collation of data, preliminary risk assessments, and detailed inspection of prioritised sites over a five-year period. Upon reviewing these actions, progress in meeting those targets were varied.

From the authority's experience, what is apparent is the length of time that these matters can demand with the identification and 'determination' of two areas of contaminated land, along with the detailed inspection of four others accounting for several years of uninterrupted proactive regulatory activity.

3.1.1 Work carried out under the provisions of Part 2A

Under the provisions of Part 2A, the Authority has investigated six sites of potential concern and two of those sites have subsequently been determined as 'contaminated land'.

In 2002, following routine water quality testing at a public water abstraction point in Grimsby, concentrations of chemical additives commonly associated with fuel were recorded. Anglian Water implemented protective measures and approached both the Council and the Environment Agency with their findings. In considering the mobility of certain contaminants, it was felt that this could indicate a pollution incident some distance away and that the edge of a contaminative plume was being experienced. Preliminary investigations highlighted eight potential sources within the area; these were a mixture of operational and closed petrol filling stations.

Given the nature of the contamination, in February 2003, following discussions with the Environment Agency, the local authority requested the Environment Agency to investigate eight sites under the provisions of Part 2A, as potential Special Sites. It was acknowledged that should the 'source' site be found, that regulatory responsibility would transfer to the Agency. The source of the pollution incident, which lead to the contamination of controlled waters, was identified as being from a petrol filling station situated at Yarborough Road, Grimsby and in April 2004, the Council formally determined the site as contaminated land and in agreement with the Environment Agency, it was designated a Special Site. The petrol company has since carried out exhaustive investigations and a range of remedial measures have been successfully implemented.

Out of eight potential Special Sites investigated as part of the above investigation, an additional site was found which raised cause for concern. In 2003, the Environment Agency presented a report to the authority that whilst concluding was not linked to

the pollution influencing the nearby ground water abstraction point (as described above), it did confirm the presence of contamination, which may potentially pose a risk to the users of the site. The site was constructed during the 1970's as a motor dealership and petrol filling station until the adjacent college had purchased the site in 2002 when the buildings were converted for educational use.

The site investigation revealed elevated levels of contaminants associated with the former storage of fuel and based on these findings, in liaison with the Environment Agency and the Health Protection Agency (now Public Health England), the Council considered that the land met the statutory definition of contaminated land and a determination was made. The college commissioned a detailed site investigation and risk assessment and remedial measures were implemented to the satisfaction of the local authority.

3.1.2 Radioactivity

Radioactive substances have been used for a wide variety of purposes since the start of the twentieth century, but most have only been subject to regulation since 1963, the year in which the Radioactive Substances Act 1960 came into force. Industrial activities have involved the use of materials containing radioactivity in a variety of different contexts:

- Where radioactive materials have been employed for their radioactive properties e.g. luminising works;
- Where radioactive materials are incidental to materials that are used for their non-radioactive properties e.g. gas mantle production; and
- Where radioactive materials have been inadvertently handled or escaped accidentally, e.g. lead mining (Defra, 2006c).

The implementation of legislation in 2006 and re-issue of statutory guidance extended the contaminated land regime to include radioactivity and the authority's duty to inspect its area under Part 2A was modified. However, in contrast to the inspection duties for contaminated land, radioactivity applies a 'reasonable grounds' approach, in that the local authority is only obliged to inspect such land where it has reasonable grounds that radioactivity may exist.

As part of a screening exercise conducted in 2006, with reference to Defra's publication 'Industry Profile: Industrial activities, which have used materials containing radioactivity', the Council undertook a review of its historic records considering any activities which may lead to the possible presence of radioactive contamination. The exercise did not reveal any issues of potential concern.

Currently, there are no sites in England that have been designated as contaminated land due to radioactivity.

3.1.3 Planning

A large number of sites within the Borough have been successfully remediated through Planning and it is an aim of this strategy to continue in a similar manner by encouraging the voluntary remediation, redevelopment and regeneration of sites impacted by contamination.

Central Government see the planning regime as playing an integral role in the identification and voluntary remediation of contaminated land and it is a 'material' consideration for both development plans and individual applications.

Following the advent of Part 2A and the publication of the National Planning Policy Framework, close relations have been forged between council departments and a mechanism for screening planning applications, in order to identify sites of potential concern has been established. On a site-by-site basis, were deemed appropriate, inclusion of appropriate contaminated land 'conditions' are recommended as part of planning approval to ensure land under development is assessed and if needed, remediated to an acceptable standard.

The Pollution Team provides information and guidance to developers, landowners and consultants to promote consistency and good practice in the development of land affected by contamination. An easy to follow guide, developed by the Yorkshire and Lincolnshire Pollution Advisory Group (YALPAG), of which the council is a member, is available to download from the council's contaminated land web page at www.nelincs.gov.uk.

3.1.4 External Funding

Although councils receive some funding for Part 2A work through the Revenue Support Grant it is acknowledged that the investigation and remediation of contaminated land can often prove costly. Historically, Defra provided grant funding for the investigation and remediation of contaminated land for which local authorities could submit bids and in 2008, the authority was successful in securing funding for site investigatory works for one such site to the amount of £130,000. Although the government scheme no longer operates as it once did, where available, the Council will seek additional avenues of funding to support this important area of work.

SECTION 4
STRATEGIC INSPECTION

This section contains the procedures for carrying out the survey of the area to identify contaminated land, and it explains how potentially contaminated sites will be prioritised for detailed inspection. With reference to contamination by way of radioactivity the council's inspection duties are restricted to circumstances where there are 'reasonable grounds' in believing the land may be contaminated. The procedures for carrying out detailed inspections are explained in Section 5.

4.1 Internal Management Arrangements

The Pollution Team, which forms part of the Community Protection Department, is responsible for carrying out the strategic inspection of land within the Council's area of responsibility.

4.2 Land Owned and Occupied by North East Lincolnshire Council

The Council owns many plots of land throughout the borough. It is known that a small percentage of these are affected by contaminants and many more are suspected as having some form of contamination.

The Councils approach ensures that all sites regardless of ownership are inspected and classified in a consistent manner. This includes all land in current or former ownership or occupation by the Council, and land where the Council may be responsible for the site's condition (i.e. where the Council may be the 'appropriate person'). The Council has reviewed its records of land that is owned and/or occupied by the Council as part of the initial survey of the Borough and where these records indicate that such land may have had a potentially contaminative use, the land has been added to the database of potentially contaminated sites. Where such land meets the definition of contaminated land, this will be included in the public register and treated in the same manner as all other contaminated land within the area.

4.3 Information collection for survey and inspection

During the process of surveying the area, the Council will make use of information available from a wide variety of sources.

There are two basic categories of information required. The first is information that the Council uses to identify sites where contamination may be present as shown in Table B of Appendix 2, as parts of its strategic inspection. The second is information about environmental sensitivity as shown in Table C. The Council will use the environmental sensitivity information to determine whether significant harm or significant pollution of controlled waters may be occurring.

4.4 Methodology for Initial Survey and Prioritisation

The Council has developed procedures that ensures that the most serious cases are identified and dealt with at the earliest opportunity, and that resources are allocated preferentially to investigating where significant harm and/or significant pollution of controlled waters is most likely to occur. This process is also used to determine which hazards or risks should be investigated in more detail. This helps to minimise unnecessary effort and reduces the chance of potentially important risks being overlooked. In addition, it provides an auditable trail to support or explain the omission of certain risks from further consideration.

This approach has allowed sites to be grouped together into categories according to risk, ranging from very high, to low. This allows the Authority to consider sites in a rational, ordered and efficient manner inspecting those sites, which present the highest risk first.

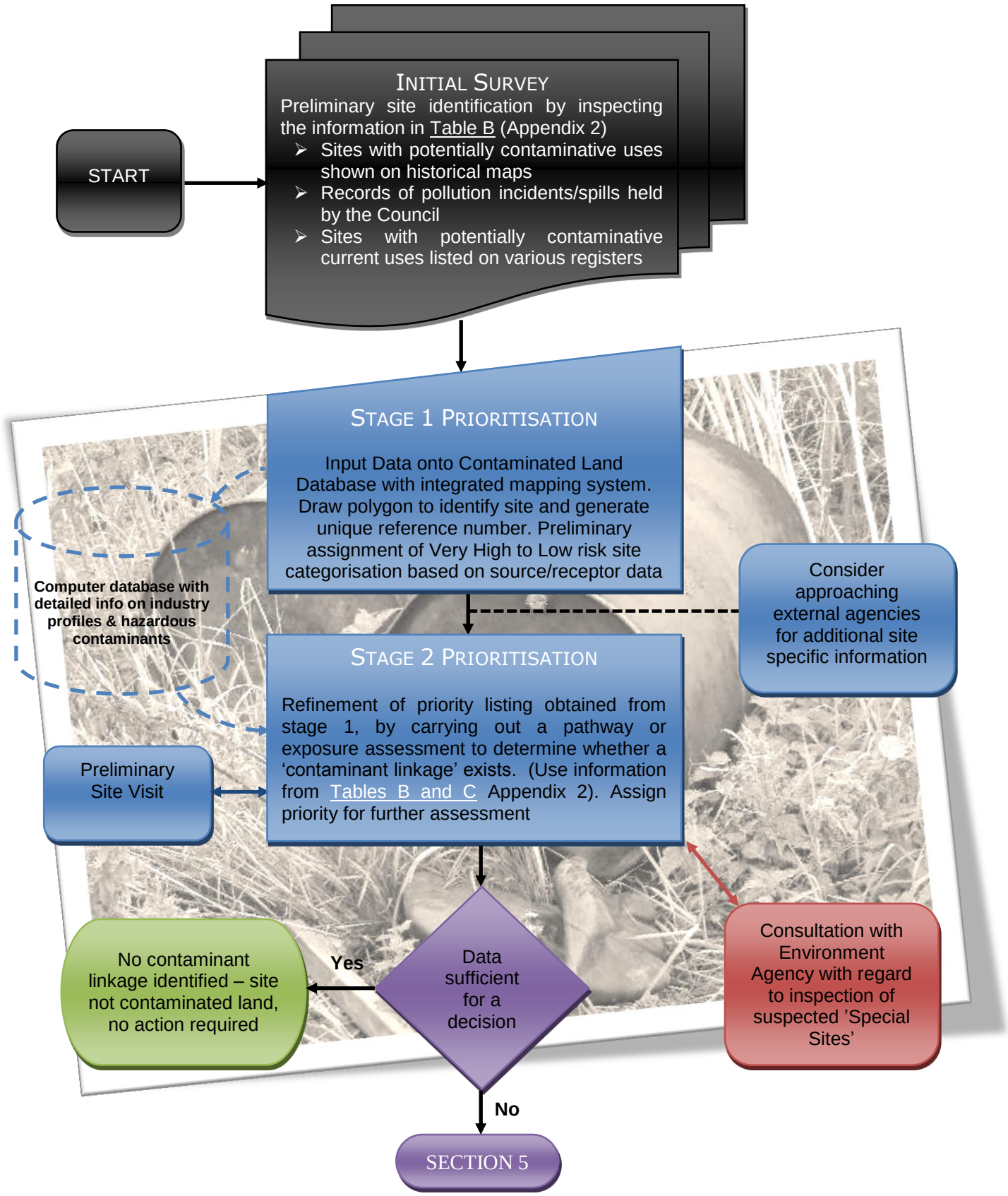
All land in the Borough undergoes an initial appraisal to identify sites of potential concern. However, by categorising sites according to risk of harm to human health and the environment the number of sites requiring further assessment can be reduced. This approach has developed two broad categories of sites; sites requiring further assessment i.e. categories medium to very high and other sites where further assessment is considered unnecessary at this time i.e. categories low and low to medium.

Sites requiring further assessment include those sites where there is a higher possibility of land contamination and were possible contaminant linkage may exist. Sites were a further assessment is not considered necessary includes those sites where there has been a potential contaminative land use but the potential to give rise to harm based on current information is considered low.

A more detailed strategic inspection will only be carried out on sites programmed for further assessment as part of this strategy. Other sites will not be assessed further unless there is a change in use or further information becomes available to warrant a change in risk categorisation. In most cases, these will be assessed as part of the Planning process as the opportunity for development arises.

The flow chart overleaf summarises the procedure that is followed to survey the Borough and prioritise those sites requiring further assessment. The initial survey and prioritisation outlined here is largely a desk-based, utilising information that the authority will collect from the sources listed in Tables B and C of Appendix 2.

STRATEGIC INSPECTION AND PRIORITISATION FLOW CHART



4.5 Survey of the area

Land use information supplied by Landmark Information Group as well as other environmental information has been gathered for large parts of the Borough and this continues to be used to identify and prioritise areas of land for further assessment and inspection.

Data consists of GIS layers with polygons identifying areas where there have been historically activities that could have caused contamination of the land and/or water. This data is supplemented with further information held in Council records and from local knowledge. Historical records of landfill sites, petrol stations etc. are included in the database. Due to some sites being identified more than once, for example because a site may have had more than one contaminative use, the data is 'cleaned' to give an accurate number of sites of potential concern. Further housekeeping is carried out to ensure all sites have been included and digitised accordingly on the GIS layer.

The prioritisation tool included within the database forms an important part of this process and the methodology adopted ensures consistency in identifying land for further inspection based on the priorities set out in this strategy. This allows the Council to consider sites in a rational, ordered and efficient manner, inspecting those sites that present the highest risk first. During this process, there is the possibility that evidence may come to light of actual harm or pollution of controlled waters. Should this occur then the highest priority will be assigned directly to the site, requiring urgent attention.

Each site is assigned a unique reference number. Further details of the information management system are given in Section 7. The remainder of this Section refers to the stages identified in the simplified flow diagram in Section 4.4

4.6 Stage One Prioritisation

The computer database incorporates a site prioritisation tool using the Source–Pathway–Receptor concept to rank sites according to their relative risk. The system contains detailed information on all the Department of Environment (DoE) Industry Profiles. This is used to derive hazard scores for each of the profiles in relation to land use, ground and surface water receptors. The hazard scores are derived by considering the contaminants likely to be present on the site. The assessment is split into two components, stage one and stage two.

The stage one assessment is based on the types of industrial uses, the site has been subjected to and the sensitivity of the potential receptors. The issue of pathways are not considered explicitly. The assessment produces a priority listing of sites for each category or type of receptor considered (i.e. humans, groundwater,

surface water, ecological and property). The priority listing has been used to develop the inspection strategy for the Council.

The stage one human health risk score for each site is calculated by multiplying the source hazard score with the receptor sensitivity score. For example, a house with garden built on an area of land historically associated with a gas works would be as follows:

- **Gas Works (Very High Risk) Score 6 x Residential with garden (Very High Sensitivity) Score 6**
  - ❖ **Stage One Summed Score = 36 (6 x 6)**

The distribution of sites in North East Lincolnshire in terms of their stage one human health risk scores as described above are illustrated in Figure 2, below.

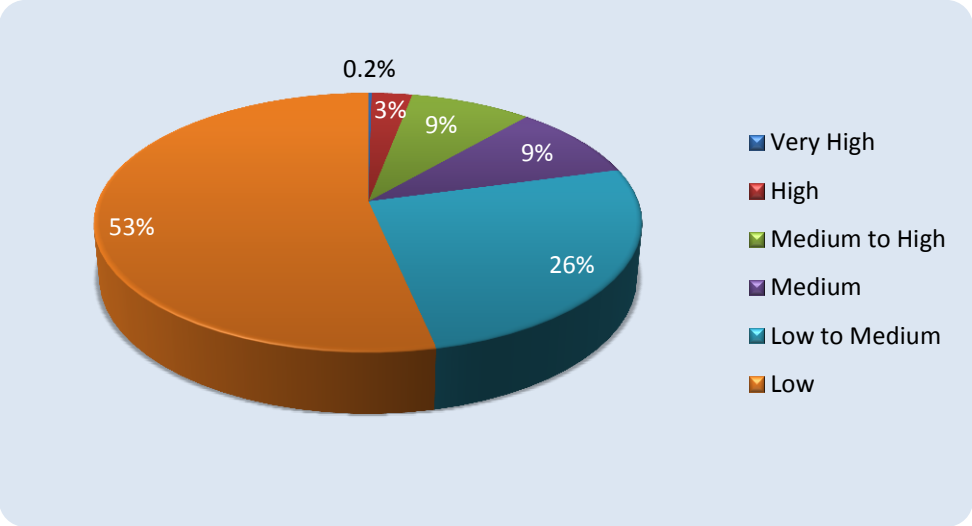


Figure 2: Risk to human health – No. of sites as a percentage of 927 sites of potential concern (Data 2016)

As illustrated above, although a significant number of sites have been highlighted as sites of 'potential concern', following initial prioritisation more than 75% are deemed to be of relatively low priority. This enables the Council to concentrate its resources on the highest risk sites first.

The prioritisation list is fluid in respect that a site may increase or decrease in priority according to the level of information available on the site and the risks that it may pose.

4.7 Stage Two Prioritisation

The stage two assessment involves refining the priority listing obtained from stage one, by carrying out a pathway or exposure assessment to determine whether a potential contaminant linkage exists. The priority listing arrived at after stage two is used to inform decisions as to which sites should be investigated further under the

Part 2A regime. In some instances, the information yielded after a stage two assessment may be sufficient to enable a decision to be taken as to whether a site should be determined as 'contaminated land'. Should a site be suspected of being a 'Special Site', the Environment Agency will be consulted.

The methodology behind the two stage prioritisation process is explained further in appendix 3.

4.8 On-going Identification of Potentially Contaminated Sites

The work of identifying and prioritising sites that may be contaminated is a perpetual process. New information provided by statutory bodies, the planning department, the public, businesses or other organisations may identify new sites or influence the prioritisation of sites that have already been recorded.

4.9 Other Triggers for Inspection

Although the above describes the general inspection and prioritisation strategy there may be times when it is necessary for the authority to undertake action outside this process. Non-routine inspections may take place for the following reasons:

- New information relating to the condition of a particular area of land warranting immediate consideration.
- Unforeseen events such as chemical spills from industry
- New receptors changing the sensitivity of the site e.g. public access to land known to have been impacted by contamination

However, these incidents will not detract significantly from the approach detailed above. Section 6 explains how the Council will obtain and respond to new information and requests for service.

SECTION 5
DETAILED INSPECTION PROCESS

The survey of the Council's area will result in a prioritised list of sites that require detailed inspection to determine whether they are contaminated land. This section explains how the Council will carry out the detailed inspections including intrusive investigations, were warranted.

Where land is deemed to require a detailed inspection, officers will undertake a further review of all relevant information prior to making contact with the landowner. The review may include input from a number of council officers representing various specialisms such as legal and planning and where considered necessary Elected Members. In some cases, the detailed inspection process may have financial implications for the Council, for example having samples analysed or the commissioning of environmental specialists to undertake a detailed assessment.

5.1 Ensuring Compliance with Statutory Guidance on Inspection

The Council is obliged to demonstrate that the arrangements for detailed inspection comply with the Statutory Guidance relating to inspecting particular areas of land. The councils approach is summarised below and the remainder of Section 5 explains in more detail how the Council will carry out detailed inspections.

i) The detailed inspection should provide sufficient information or evidence to indicate the actual presence of a contaminant.

ii) The detailed inspection may include the following actions:

a) collation and assessment of documentary information, or other information from other bodies;
b) a site visit to carry out a visual inspection and, in some cases, limited surface sampling;
c) an intrusive investigation of the land (e.g. trial pits, boreholes)

iii) The Council has the statutory power to enter a site/area in order to carry out inspection and take samples.

iv) Before exercising its powers of entry to a site, the Council will be satisfied on the basis of information already obtained that:

a) there is a reasonable possibility of the presence of a contaminant, a receptor and a linkage;

b) where intrusive investigation is deemed necessary, that it is likely that the contaminant is actually present and, given the current use of the land that the receptor is actually or likely to be present.

v) The Council should not use its power of entry to carry out any intrusive investigation if:

a) Detailed information* on the condition of the land has been provided by the Environment Agency, or some other person;

b) A person offers to provide such information* within a reasonable and specified time and subsequently delivers the information within the agreed period.

**provided that the information is reliable and adequate*

vi) The Council will ensure that any intrusive investigations are carried out in accordance with the appropriate technical standards.

vii) The Council will take all reasonable precautions to avoid harm, water pollution or damage to natural resources, or features of historical or archaeological interest, whilst carrying out an intrusive investigation.

viii) The Council will consult Natural England on any action that would require their consent, prior to carrying out intrusive investigations on any area notified as a Site of Special Scientific Interest.

ix) The Council will not carry out any further detailed inspection if, based on information supplied from an inspection, there is no longer a reasonable possibility of a contaminant linkage.

5.2 Criteria for Selecting Areas and Individual Sites

All sites which the Council considers may be contaminated will have a priority category (e.g. from Very High to Medium) assigned to them as part of the strategic inspection process. There may well be more than one site in each priority category scored equally according to risk prioritisation, and it is therefore necessary to decide which site is the most important. Before beginning detailed inspections on a group of sites in a priority category, the Council will review the information available for all sites in that category and decide upon the order in which these will be inspected. The decision making process will consider the Council's priorities as described in the Contaminated Land Inspection Summary Document, local policy and professional

judgement to ensure that the most serious sites are inspected first. Other issues that may influence the order in which sites of similar risk are dealt with include:

- The Council may progress several detailed inspections simultaneously, and the time taken to obtain information may vary between sites
- If information is obtained indicating the possible existence of a site with a higher priority category than those being progressed at the time, the Council will divert resources to investigating the potentially more serious problem.

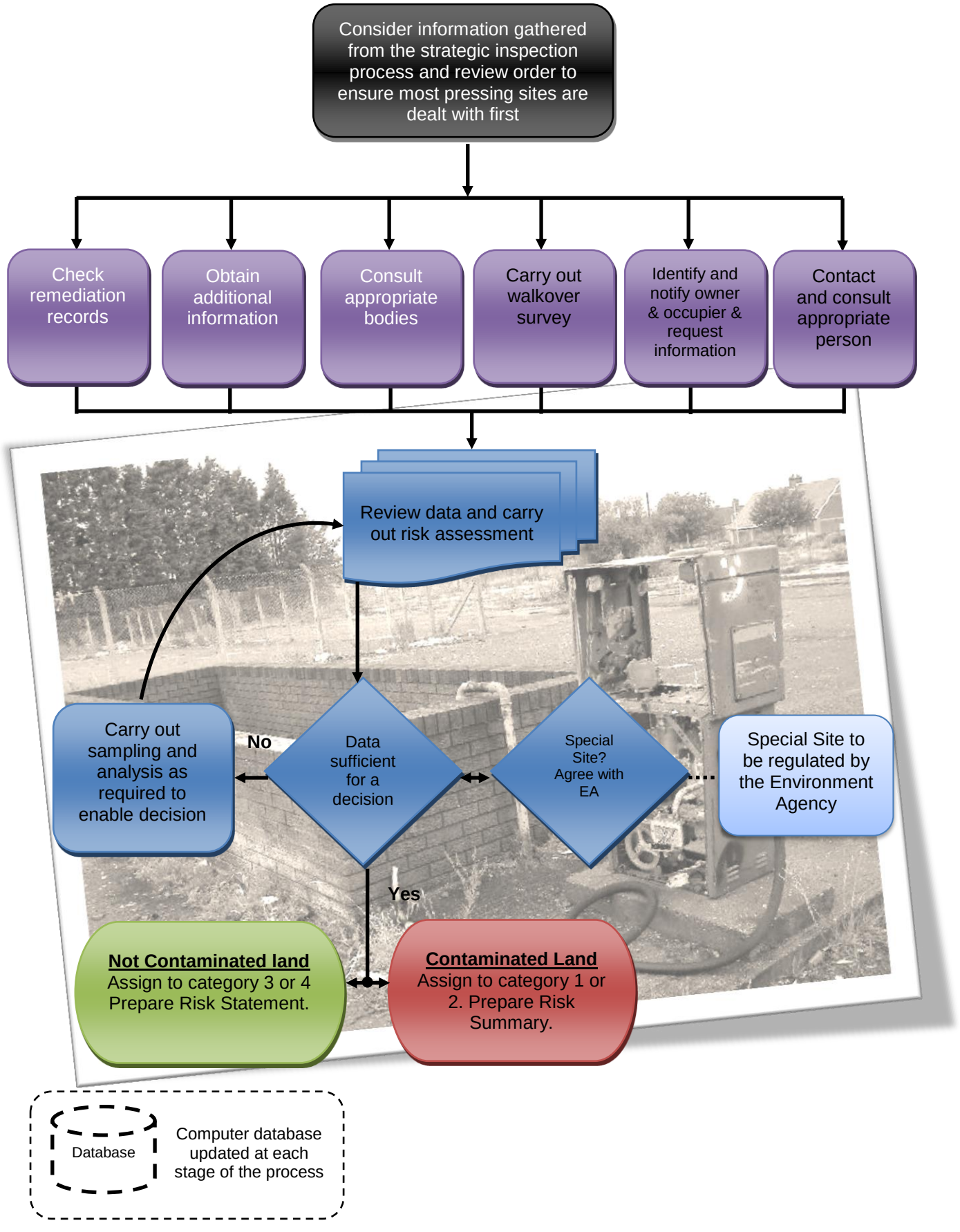
5.3 Methodology and Procedures for Detailed Inspection

The purpose of the detailed inspection is to obtain sufficient information for the Council to establish whether

i. the land is likely to be Contaminated Land, as per legal definition
ii. if the land requires designated as a Special Site

The Council has established procedures for this purpose and to comply with the statutory guidance. The methodology for a detailed inspection is summarised in the flow chart overleaf.

FLOW CHART FOR DETAILED INSPECTION



5.3.1 Review priority category

Before commencing a detailed inspection on a site within a priority category e.g., category 'Very High', the Council will review the information for each site in the category and decide the relative urgency of each case in terms of the likelihood that significant harm or water pollution is occurring. Similar reviews of progress and relative urgency of cases will be undertaken at regular intervals as part of reviewing the strategy. Further details of review procedures are given in the Contaminated Land Inspection Summary Document.

5.3.2 Check remediation records

The first step in the detailed inspection is to check whether the site has recently been remediated. If the site has been remediated, the likelihood of significant harm or water pollution may well have been reduced. If this is the case, the Council will amend the priority category to reflect the new situation. The Council will not automatically assume that remediation has been effective in preventing a significant contaminant linkage, and will seek information to demonstrate that this is so.

5.3.3 Obtain additional information

The strategic inspection process may well have provided information that is adequate to determine the likely presence and significance of contamination. However, all sites are different so were appropriate the Council will carry out further research to clarify the possible sources, pathways and receptors. Examples of further research at this stage would be to request additional large-scale historical maps to look at aerial photographs held by the Library services and to make site-specific enquiries to relevant statutory bodies and other organisations. North East Lincolnshire Council will refer to published guidance on seeking further documentary information for example CLR 3, Documentary Research on Industrial Sites (DoE, 1994).

5.3.4 Consult appropriate bodies

The Council will consult both internally and externally to seek further details and advice on a site-specific basis. The list of consultees will depend on the nature of the possible significant contaminant linkage for example, the Environment Agency (for controlled waters), the Public Health England (human health), Food Standards Agency, Natural England (food and ecology) and Historic England (historic environment) respectively.

The Authority will arrive at a decision as to whether a site should be 'determined' as contaminated land after considering all relevant information, the overriding objectives of the statutory guidance and council policy.

5.3.5 Carry out walkover survey

The Council will visit sites during detailed inspection to confirm the current site use and condition and to look for any evidence of contamination. A standard pro-forma will be used to ensure that the same information is sought on each site and considers the inputting interface of the Councils contaminated land database for efficient data handling. Walkover surveys will be carried out in accordance with published guidance and best practice.

Although the Council has statutory powers to enter sites in order to inspect them, the Council will normally inspect sites under agreement with the site owner and/or occupier. Prior to carrying out the walkover survey, the Council will review the information currently held for the site to ensure that there still appears to be a reasonable possibility of the presence of a contaminant, a receptor and pathway.

5.3.6 Identify and notify owner and occupier

The Council will make contact with site owners and occupiers at the detailed inspection stage. The principle purposes of this will be to inform them that the Council is inspecting the site for contamination problems, and to request any information (e.g. site investigation data) that may already exists.

5.3.7 Review data and carry out risk assessment

Information from the above activities will be reviewed and used to produce an updated contaminant – pathway – receptor risk assessment. The risk assessment will indicate whether significant harm or water pollution is likely, in a similar manner to the prioritisation procedure in Section 4. Because there is now more information, the results of the risk assessment will be more robust.

5.4 Significant Possibility of Significant Harm

In order to meet the legal definition of contaminated land authorities in many cases are left to determine whether the land poses a ‘significant possibility of significant harm’ (SPOSH).

In establishing a robust approach, the Council’s strategy is mindful of both statutory and non-statutory guidance. The term, contaminated land is defined according to a significant level of risk posed by an unacceptable intake/contact with a contaminant. Part 2A takes an approach on whether risks constitute SPOSH on a case-by-case basis by considering a robust scientifically based risk assessment conducted on a site-specific basis, considering local circumstance (Defra, 2008). The revised statutory guidance presents a new four category system for classifying land under Part 2A, ranging from Category 4, describing land that is clearly not contaminated land in the legal sense to Category 1, describing land where there is a significant

possibility of significant harm. Whilst deliberating whether SPOSH is present the Council will consider the four categories given in Section 4 of the statutory guidance.

5.5 Data sufficient for decision

There may be sufficient information to determine that the site appears to be Contaminated Land or a Special Site without the need for an intrusive investigation. Should this arise, the information will always include evidence that contamination is present on the site.

The risk assessment may show that there is no significant contaminant linkage; for example, the landowner may have carried out a site investigation and found no contamination to be present. In these cases, no action will be necessary and the Council will not pursue the inspection any further. Details of such sites will remain on the Council's database, since changes e.g. new development can create new contaminant linkages. Triggers for the review of a site inspection are discussed further within section 4 of the strategy summary document.

5.6 Carry out sampling and analysis

Where the risk assessment shows that there is a reasonable possibility of a significant contaminant linkage, in the absence of any reliable data, the Council will seek evidence that contamination is actually present on the site. This generally requires taking samples and analysing them for contaminants that may be present.

The scope of the sampling and analysis required will depend on the site. In all cases, the Council will seek only the information that is required to decide whether the site is contaminated land. If a Special Site is suspected then the Council will liaise with the Environment Agency to determine whether they should carry out the inspection of the land on the Councils behalf. In deciding what kind of site investigation is needed, the Council will refer to guidance such as British Standard 10175, Investigation of Potentially Contaminated Land Sites – Code of Practice.

In some cases the landowner or occupier, or other party (e.g. an organisation that is, or expects to be the appropriate person) may offer to carry out a site investigation. In these cases, the Council will specify minimum requirements for the investigation to ensure that adequate information is obtained. Any investigations commissioned by an 'Appropriate Person' must be carried out by a reputable organisation with the necessary skills to undertake the task. The Council will also agree a timescale within which the information must be provided. Once adequate site investigation data is obtained, the Council will repeat the risk assessment as above, and decide whether the site appears to be contaminated land.

5.7 Potential Special Sites

A Special Site is a site, which the Local Authority considers contaminated land and which meets one or more of the prescribed descriptions defined in the Contaminated Land (England) Regulations.

When the Council identifies a site that is considered likely to be a Special Site, the Environment Agency will be notified and the information on the site copied to the Agency. The Council will retain details of the site on its computer database, and the Agency asked to notify the Council of significant progress on the site's remediation.

Certain prescribed information is required to be held on both the Environment Agency and Local Authority's public registers in relation to contaminated land and arrangements will be made on a site-by-site basis to ensure the Council's public register is kept up date.

5.8 Health and Safety Procedures

The Council will discharge its obligations under the Health & Safety at Work Act (1974). The health and safety of anyone involved with the site will be considered and the relevant person will be under a duty to ensure that the relevant legislation is adhered to at all times.

5.9 Appointing Consultants

Due to the technical nature of the contaminated land regime, which incorporates a number of specialisms, the Council may need to appoint external specialists to assist in a number of areas to fulfil its statutory duties, for example:

- Advise on complex technical issues
- Undertake a detailed site inspection
- Prepare and undertake detailed technical presentations to the public or to other bodies or assist in the production of newsletters, leaflets and internal briefings, as deemed appropriate on a site-specific basis.

Consultants will be appointed in line with the Council's standard procurement process for the engagement of external consultants. When employing a consultant, the council will also consider guidance such as 'CLR 12 – A Quality Approach for Contaminated Land Consultancy' (DoE, 1999), to ensure an appropriately qualified, experience, resourced and accredited consultant is appointed.

In this section, the organisations that the Council has regular contact with in carrying out its contaminated land duties are identified, and the arrangements for transfer of information are detailed. It also explains how external organisations and the public can contact the Council to ask for, or offer, information about contaminated land.

6.1 Internal Liaison and Communication

There are links between the regulatory role of the Council with respect to the inspection of contaminated land and other regulatory regimes such as Planning and Building Control. The Council in the course of its duties will continue to liaise with and communicate information between the relevant departments.

6.2 Contact Mechanisms for Other Statutory Bodies

The Council may need to consult other statutory bodies from time to time during the course of the detailed inspection process for its area of responsibility. These bodies may be able to supply specialist advice and information about sites, or they may have a prior interest. For example, the Environment Agency will be consulted when the site may be causing water pollution or has the potential to be a 'Special Site', and Natural England will be consulted if harm to designated area of ecological importance is suspected.

6.3 Contact Mechanisms for Owners, Occupiers and Other Interested Bodies

6.3.1 Owners/occupiers

The Council will normally contact site owners and occupiers when a detailed inspection is required, to arrange for a site visit as described in Section 5. The Council will also request site owners and occupiers to provide any information regarding the site that is relevant to contamination. If appropriate, the Council will also contact the 'Appropriate Person' at this stage for additional information.

6.4 Contact Mechanisms for the Wider Community

6.4.1 Contacting the Council about contaminated land – Information & Complaints

The Council's responsibility for contaminated land includes responding to information and requests for service from the public, and providing information in response to enquiries. Interested parties may wish to:

- Tell us about contaminated land or water pollution
- Notify us about the condition of land
- Find out about contaminated land in the area
- Find out more about contaminated land in general

The contaminated land inspection programme is flexible enough to incorporate requests for service, regarding contaminated land from members of the public, businesses or community groups as long as these can be verified using established methods of investigation. Interested residents may supply information on a voluntary basis on land contamination that is not directly affecting themselves, their families or their properties. The procedure is as follows:

- All service requests will be logged on a computer database and an Officer will investigate the concern within seven days. The complainant will be informed of progress towards resolving the issue.

- It is hoped all requests for service can be dealt with expeditiously and efficiently. However, given the restrictive definition of contaminated land under Part 2A this may prove difficult. The following conditions will apply:

    - ❖ Source Pathway Receptor relationships will have to be established in complaints pertaining to contaminated land investigated by the Council. This may involve detailed investigations that may take some time.
    - ❖ All complainants will be asked to supply their names and addresses and the location of the site-giving rise to the concern. The identity of the complainant will remain confidential other than by agreement.

The Council does not normally respond to anonymous complaints or provision of information but may take any action that it thinks is appropriate in the circumstances.

6.4.2 Accessing the Public Register & other documentary info on contaminated land

Basic information about contaminated land is kept on a public register. The contents of the register are defined in law and are explained further in Section 7.2. A summary of site details formally determined as contaminated land are available on the council's website at www.nelincs.gov.uk. A hard copy of the public register can be viewed at the council offices during Monday to Friday 8.30 am to 4.30 pm, except bank holidays.

6.5 Media

In some circumstances, the inspection of land under Part 2A may attract the interest of the media. In such circumstances, members of the press will be advised to contact the council's Communications Team for an appropriate response. Where possible, the media will be kept informed of the progress of a site inspection within the boundaries of confidentiality, public interest and the Data Protection Act.

6.6 Risk Communication

The presence of contamination has the potential to affect people's health, livelihoods and financial situation. The Council acknowledges that the risks from contamination needs to be managed appropriately and communicated effectively. Communicating land contamination can be complex and often emotionally charged because of the potentially serious implications of the problem, the diverse range of people involved and competing priorities. The Council will consider how to best communicate these issues on a site-by-site basis in liaison with the councils Communication Team and upon advice received from external bodies such as the Public Health England (in relation to Human Health) and where appropriate documentary guidance on risk communication (SNIFFER, 2010).

As part of a transparent approach the Council will endeavour to explain what the problem is, whether it is dangerous and what the Council is doing about it, as well as keeping concerned individuals or groups informed about the progress with investigation or remedial works.

7.1 General Principles

In the course of implementing the strategy, the Council obtains large amounts of information from a variety of sources that needs to be managed efficiently. This section of the strategy sets out how the Council will manage the information obtained.

The intention of the Council is to maintain an inspection strategy that is as transparent as possible so that reasons for the decisions made concerning contaminated land can be readily understood. The Council will therefore manage information as set out below to achieve this aim and to comply with requirements of the Statutory Guidance.

7.2 Content of the Public Register

The Council is obliged to maintain a public register of information about contaminated land in its area of responsibility.

It is important to note that the public register does not contain details of work in progress or of the Council's enquiries into the historic use of the land or other information gathered during the research phases of its investigation into potentially contaminated land.

Details of what must be included in the register are set out in the statutory guidance. Briefly, these details are:

Remediation Notices

Details of the remediation notice:

1. Who the Council has served a notice on
2. The location of contaminated land the notice refers to
3. Why the land is contaminated land, what the contamination is and, where possible, where it came from (if not from the land in question)
4. What the contaminated land is currently used for
5. Details of what remediation each appropriate person has to do and when this has to be completed
6. The date of the notice

Appeals against Remediation Notices

Details of any appeal against a remediation notice served by the Council and any decision on such an appeal.

Remediation Declarations

Any remediation declaration prepared and published by the Council and for any such declaration, details of items 2 – 5 as detailed in ‘Remediation Notices’ above.

Remediation Statements

Any remediation statement prepared and published by the responsible person or by the Council and for any remediation statement, details of items 2 – 5 as detailed in ‘Remediation Notices’ above.

Appeals against Charging Notices

Any appeal against a charging notice served by the Council and any decision on such an appeal.

Designation of Special Sites

Details of any land in the Councils area of responsibility designated as a special site by the Council or the Secretary of State and the reasons for this.

- Any notice given by the Environment Agency (EA) of its decision to adopt a remediation notice (The EA being the enforcing authority for Special Sites).
- Any notice given by the EA to the Council terminating the designation of any land as a special site

Notification of Claimed Remediation

Any notification given to the Council of remediation claimed to have taken place

Convictions for Offences in relation to a Remediation Notice

Any conviction of a person for any offence in relation to a remediation notice served by the Council, including the name of the offender, the date of conviction, the penalty imposed and the name of the Court.

Guidance issued to the Council by the Appropriate Agency

Details of any guidance issued to the Council for a particular site

Other Environmental Controls

Where the Council cannot issue a remediation notice because the powers of the appropriate agency may be exercised instead:

- Details of items 2 – 5 in ‘Remediation Notices’ above for the contaminated land

- Any steps of which the Council has knowledge, taken towards remedying any significant harm or pollution of controlled waters that causes the land to be contaminated land

Where the powers of the appropriate waste regulation authority or waste collection authority may be exercised instead (in relation to deposition of controlled waste, which causes the land to be contaminated land) the Council may not issue a remediation notice and may record the following details on the register:

- Details of items 2 – 5 in 'Remediation Notices' above, for the contaminated land
- Any known steps taken to remove the waste, or reduce the consequences of its deposit, including steps taken by a waste regulation authority or waste collection authority and the name of the authority.

Where the Council cannot specify something by way of remediation in a remediation notice because this would impede or prevent a discharge to a water body for which a 'discharge consent' is in force:

- Details of the consent
- Details of items 2 – 5 in 'Remediation Notices' above for the contaminated land

7.2.1 Arrangement of Information in the Public Register

For ease of reference, the above information is organised so that all the entries relating to a particular site can be readily consulted in connection with each other. The Council will add new information to the register as soon as is reasonably possible. The contents of the register will therefore change over time as information is added to or updated. An up-to-date summary of the entries on the public register is maintained on the council's website via www.nelincs.gov.uk.

7.2.2 Other information

In addition to the public register information, the statutory guidance requires the Council to prepare a written record of any determination that particular land is 'Contaminated Land'. This includes information summarised below (by reference to other documentation if necessary):

- A description of the particular significant contaminant linkage, identifying all three components of contaminant, pathway and receptor;
- A summary of the evidence upon which the determination is based
- A summary of the relevant assessment of this evidence; and
- A summary of the way in which the Council considers that the requirements of the statutory guidance have been satisfied

At the detailed inspection stage, should land be investigated and found not to meet the definition of contaminated land, then the council will prepare a written statement explaining how it has come to that decision, as required by Section 5.2 of the Statutory Guidance.

7.3 Storage Systems

7.3.1 Contaminated Land Database

To help the Council collate land quality information it utilises a computerised database with integrated GIS mapping which is dedicated to managing information related to the identification, risk assessment and remediation of contaminated land.

Information on the database for a particular area or site can be displayed on the system in response to direct queries by the public. Figure 3 below illustrates how the software can be used to interrogate and reveal previous land uses and potential contaminant linkages.

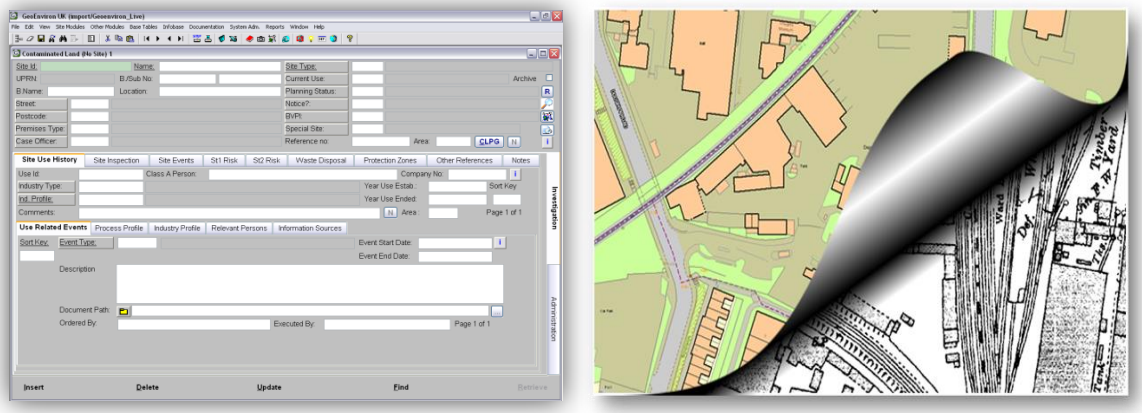


Figure 3: Specialist software incorporating a database with integrated mapping

Land use information as well as other environmental information has been gathered for large areas of the Borough and this continues to be used to identify and prioritise areas of land for further assessment.

8.1 Glossary

This glossary has been prepared to assist understanding of technical and legal terms used in this contaminated land strategy. Definitions should therefore be taken in the context of contaminated land; they are not necessarily definitions appropriate to any other purpose. Explanations of terms with legal meaning have been simplified and/or further explained for clarity but should not be assumed to comprise full legal definitions. For ease of reference, they are presented in alphabetical order.

Abstraction

The pumping or collection of water for drinking or other use from a well, spring, river or other water source.

Appropriate person

Any person who is found to be liable to pay for remediation under the terms of Part IIA Environmental Protection Act 1990. This is firstly the polluter. If no polluter can be identified, then the landowner or occupier may be found to be the appropriate person.

Aquifer

A body of rock or sediment that is sufficiently permeable to store and transmit water under the ground, in quantities that permit water abstraction. The classifications of Aquifers are dependent upon their ability to transmit waters:

- **Principal Aquifers:** These are highly permeable formations usually with a known or probable presence of significant fracturing. They may be highly productive and able to support large abstractions.

- **Secondary Aquifers:** These can be fractured or potentially fractured rocks, which do not have a high primary permeability, or other formations of variable permeability. Although these aquifers will seldom produce large quantities of water for abstractions, they may have local importance.

- **Unproductive Strata:** These formations with negligible permeability are generally regarded as not containing groundwater in exploitable quantities.

Charging notice

A notice placing legal charge on land by an enforcing authority enabling the authority to recover reasonable remediation costs from the appropriate person(s).

Contaminated land

The definition of contaminated land from the Environmental Protection Act 1990, Part 2A, Section 78A (2) is:

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

c) significant harm is being caused or there is a significant possibility of such harm being caused; or
d) significant pollution of controlled waters is being, or is likely to be, caused.'

Where harm is attributable to radioactivity the legislation was modified in 2006 to include

'Any land which appears to the local authority in whose area it is situated to be in such condition, by reasons of substances in, on or under the land, that:

a) harm is being caused, or

b) there is significant possibility of harm being caused'

Contaminant linkage (previously referred to as a pollutant linkage)

A circumstance where it is possible that a contaminant (source) will contact a receptor (via a particular pathway)

Controlled waters

'Controlled waters' are all natural inland and near coastal waters, including ground water. Therefore, all ponds, lakes, rivers, streams, estuaries and coastlines are controlled waters. Pollution of controlled waters means the addition of any 'poisonous, noxious or polluting matter or any solid waste matter'.

For Part 2A purposes, 'ground waters' do not include waters contained in underground strata above the saturation zone (often known as the 'unsaturated zone').

Detailed inspection

A 'detailed inspection' may consist of a collation of documentary evidence, visual inspection or intrusive investigation to consider whether or not a piece of land meets the legal definition of 'contaminated land'.

Discharge consent

A consent, issued by the Environment Agency, allowing the discharge of wastewater e.g. run-off, or treated effluent from a factory, to a controlled water. The consent

specifies the quantity and quality of wastewater that may be discharged at the consented location.

Environmental permitting regulations 2010 (EPR)

A system for regulating industrial sites in the UK made under the Environmental Permitting Regulations 2010 (EPR). It requires industrial sites operating particular processes to obtain a 'permit' to operate from the Environment Agency or the Local Authority (depending on the nature and scale of the process). In general, processes regulated under the EPR are likely to be more polluting than those not regulated are. However, this covers all forms of pollution and does not necessarily mean that EPR sites are more likely to cause contamination of the ground. The EPR has replaced the former Pollution Prevention and Control and Waste Management Licensing regimes.

Geographical information system (GIS)

A computer program that enables map-related data to be stored viewed and processed.

Harm attributable to radioactivity

Harm in the context of radioactivity is defined as 'lasting exposure to any person resulting from the after-effects of a radiological emergency, past practice or past work activity'. The Statutory Guidance sets out:

a) the dose criteria that determines whether harm is being caused

b) the degree of possibility of the harm being caused will amount to significant possibility

Pathway

A mechanism for a receptor to be exposed to a contaminant that may harm the receptor.

Potentially contaminative use

A development that exists, or has previously existed, on a site where the nature of the development is such that contamination of the ground may have occurred.

Public register

The register maintained by the enforcing authority that contains certain prescribed information of all regulatory action taken by the enforcing authority in respect of the remediation of contaminated land. The register is intended to act as a full and permanent record, available for public inspection.

Receptor

A receptor could be:

- a living organism (including humans) or group of organisms, and ecological system or piece of property that is being, or could be harmed by a contaminant
- controlled waters, which are being, or could be, polluted by a contaminant
- a person who is, or could be subject to lasting exposure of radioactivity

Remediation

Remediation is an action carried out to reduce the risk of significant harm or water pollution. It entails breaking, removing significant contaminant linkages, by treating the source (contaminant), blocking the pathway or protecting, or removing the receptor.

Remediation declaration

A document prepared and published by the enforcing authority, detailing remediation actions that it would have specified for a given site but is prevented from so doing by Section 78E (4) and (5). This says that the authority must only specify remediation that is reasonable, given the seriousness of the harm or water pollution, and the cost of the works that would have to be carried out.

Remediation notice

A notice specifying what an appropriate person has to do by way of remediation and when they are to do each of the specified actions. Note that the actions specified do not always consist of 'remediation'. 'Assessment actions' and 'monitoring actions' can also be specified within a remediation notice.

Remediation statement

A statement prepared and published by the responsible person detailing the remediation actions that have been carried out or are planned.

Responsible person

The person responsible for carrying out the remediation. This may not necessarily be the appropriate person.

Run-off

Surface water that flows across an area and into rivers, streams etc. or drains during rainfall i.e. all the water that does not soak into the ground.

Significant harm

Significant harm includes:

- Death, disease, serious injury, genetic mutation, birth defects or the impairment of reproductive functions in humans
- Irreversible adverse change or threat to endangered species, affecting an ecosystem in a protected area (e.g. site of special scientific interest)
- Death, serious disease or serious physical damage to pets, livestock, game animals or fish
- A substantial loss (20%) in yield or value of crops, timber or produce
- Structural failure, substantial damage or substantial interference with right of occupation to any building and/or the historic environment

Further information on significant harm is given in Section 4, of Contaminated Land Statutory Guidance, Defra (April 2012)

Significant contaminant linkage

A contaminant linkage where the amount of contaminant (source) that may be able to contact the receptor is likely to be sufficient to result in significant harm or the pollution of controlled waters.

Significant possibility of significant harm

In determining whether there is a significant possibility of significant harm, the local authority will apply a risk assessment approach, considering both the severity and the likelihood of the possible harmful effect. This will involve establishing:

- The nature and degree of harm predicted
- The susceptibility of the receptors to which harm might be caused
- The timescale within which the harm might occur

Source

A substance capable of causing harm, that is present in, on, or under the ground.

Source protection zone

An area around a major groundwater abstraction (drinking water source) where ground contamination may result in the contamination of the water source. Source Protection Zones are defined by the Environment Agency and there are restrictions on development of some kinds (e.g. landfill sites) within them.

Special site

A Special Site is a contaminated land site that is regulated by the Environment Agency instead of the Local Authority. The legal definition of a Special Site is given in Section 78C (7) and 78D (6) of the Environmental Protection Act 1990. Further descriptions are present within Schedule 1 of the Contaminated Land (England) Regulations 2006.

Examples of Special Sites are:

- Sites that could be contaminating drinking water resources
- Industrial sites likely to have difficult contamination problems, such as waste acid tar lagoons, oil refining, explosives and sites regulated under the provisions of the Environmental Permitting Regulations 2010
- Nuclear sites
- MoD land (with some exceptions, like off-base housing)
- Sites impacted by radioactivity

Statutory guidance

Guidance that must be complied with by the enforcing authority. The statutory guidance for English local authorities is contained within Defra's 'Environmental Protection Act 1990: Part 2A, Contaminated Land Statutory Guidance', April 2012.

Walkover survey

A preliminary survey of a site carried out by visual inspection. Normally the survey is guided by a checklist of areas or features to be inspected.

Water Framework Directive

The Water Framework Directive has introduced a comprehensive river basin management planning system to help protect and improve the ecological health of rivers, lakes, estuaries and coastal and groundwaters. This is underpinned by the use of environmental standards to help assess risks to the ecological quality of the water environment. The UK has been split into several River Basin Districts. Each River Basin District has been characterised into smaller management units known as Water Bodies.

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STM Environmental Ltd. (2006). GeoEnviron Stage 1 Risk Prioritisation of North East Lincolnshire Potentially Contaminated Land Sites.

APPENDIX 1 DIAGRAMS AND MAPS

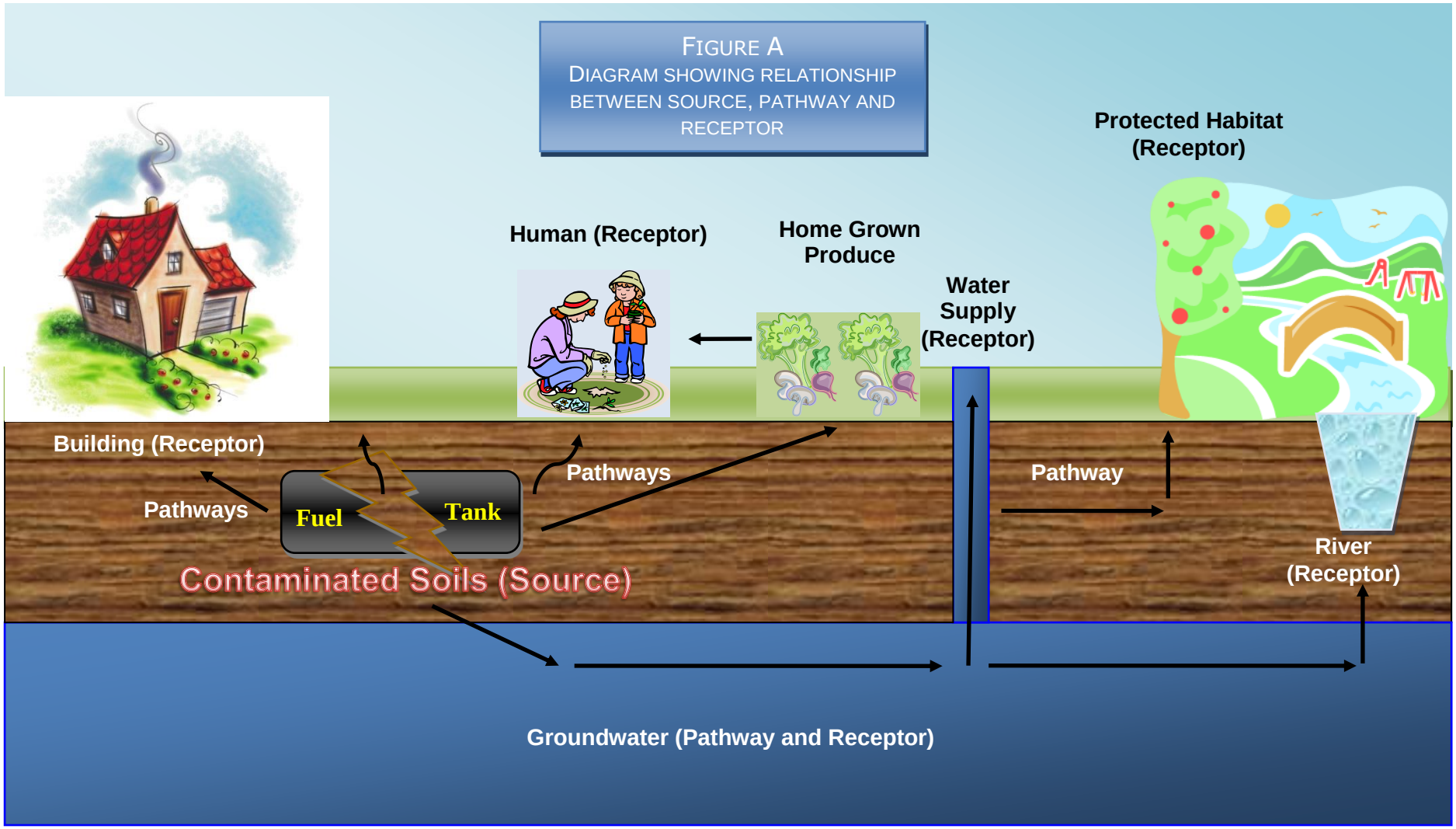


FIGURE A
DIAGRAM SHOWING RELATIONSHIP BETWEEN SOURCE, PATHWAY AND RECEPTOR
Protected Habitat (Receptor)
Human (Receptor)
Home Grown Produce
Water Supply (Receptor)
Building (Receptor)
Pathways
Fuel
Tank
Pathways
Pathway
River (Receptor)
Contaminated Soils (Source)
Groundwater (Pathway and Receptor)

FIGURE B
NORTH EAST LINCOLNSHIRE IN CONTEXT WITH THE REST OF ENGLAND & WALES

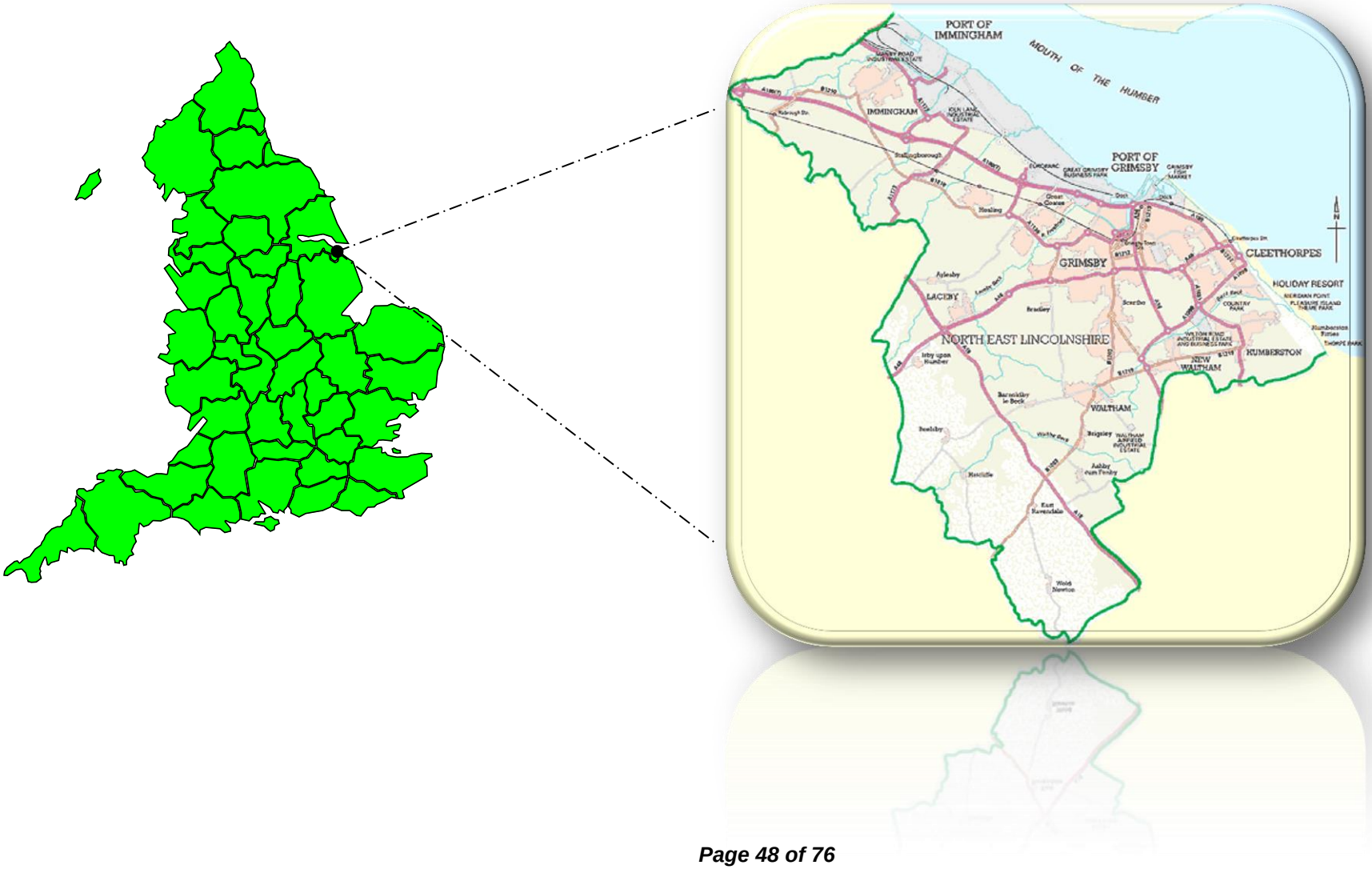
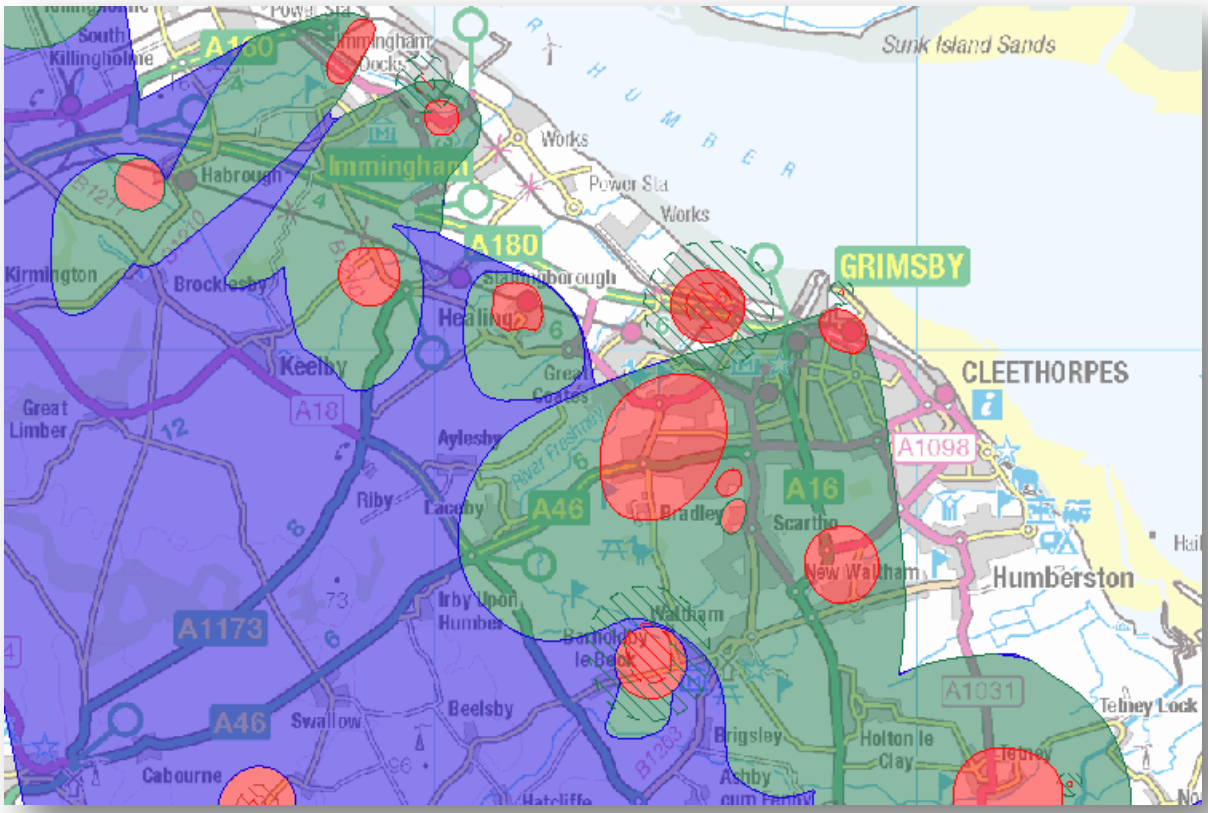


FIGURE C
SOURCE PROTECTION ZONES WITHIN NORTH EAST LINCOLNSHIRE



Source Protection Zones

Zone One (within 50 days)

Zone Two (within 400 days)

Total Catchment Area

The Environment Agency has defined Source Protection Zones for groundwater sources such as wells, boreholes and springs used for public drinking water supply. These zones show the risk of contamination from any activities that might cause pollution in the area. The closer the activity, the greater the risk. The map above shows the distribution of the three main zones within the borough of North East Lincolnshire.

Data supplied by the Environment Agency

APPENDIX 2 SOURCES OF INFORMATION

TABLE A	Action Priority Categories for Contaminated Land sites
Action Priority 1	• Contaminants certainly present and significant contaminant linkage proven or very likely • Pollution of controlled waters is being caused • Harm or pollution likely to get worse in the short term if no action is taken • Urgent action needed in the short-term
Action Priority 2	• Contaminants certainly present and significant contaminant linkage likely • Significant harm or significant pollution of controlled waters likely • Harm or pollution unlikely to get worse in the short-term • No receptor in urgent need of protection • Action needed in the medium-term
Action Priority 3	• Contaminants certainly present but significant contaminant linkage unlikely • No impact on water quality measured • Contaminants are unlikely to be entering controlled water in sufficient quantities to cause impact on water quality • Action may be needed in the long-term

TABLE B Indicators of Potentially Contaminated Land	
Type of information	**Source of Information**
Records Of Actual Harm Or Pollution Of Controlled Waters	Environment Agency, the council's Pollution Team
Historical Maps (scales 1:10,000 ; 1:2,500) Published 1850's, 1890's/1900's, 1920's, 1930's, 1950's, 1960's/70's, 1980's/90's.	Landmark Information Group, ICC Site Search, Local and County Libraries, Local Record Office, Bodleian Library
Environmental Permitted Sites including Waste Management	Environment Agency, the council's Pollution Team
Closed Landfill Sites	Environment Agency, British Geological Survey, North East Lincolnshire Council
Existing Lists Of Potentially Contaminated Land	The council's Pollution Team
Areas of Environmental Sensitivity	British Geological Society
Current Land Uses	Ordnance Survey maps, the Council's Planning Department
Records of Remediation or clean-up work	The council's Pollution Team/Planning Department, Environment Agency

TABLE C Indicators of Environmental Sensitivity	
Type of information	**Source of Information**
Water Resources	
Groundwater Source Protection Zones	Environment Agency
Aquifer Classification And Vulnerability	Environment Agency
Locations Of Drinking Water Abstractions	Environment Agency, the council's Pollution Team
Surface Waters	Environment Agency and Ordnance Survey Mapping
Flood Information	Environment Agency, the council's Planning and Flood Risk Teams
Environmentally Sensitive Areas	ADAS
Nitrate Vulnerable Zones	Defra and the Environment Agency
Ecology and Wildlife	
Sites of Special Scientific Interest, Nature Reserves, Ecological sites	Natural England
People and Property	
Land Uses (e.g. residential areas)	Ordnance Survey Mapping, the Council's Planning Department
Historic Environment	The council's Planning Department and where appropriate, Historic England

APPENDIX 3 PRIORITISATION METHODOLOGY

Stage One Prioritisation

The first step in the prioritisation is to identify potential sources. Initial source data for North East Lincolnshire was used in the form of a GIS database of Historical Land Use Data (HLUD) and Potentially Contaminative Industries. The sources identified in the HLUD were then linked to the Industry Profiles using the database. Each industry profile is scored in terms of its potential environmental impact on land use (i.e. humans, ecology and property), groundwater and surface water receptors. The range of possible hazard scores assigned to an industry profile is shown in the table below.

Risk Category	CODE	Score
Very High	VH	6
High	H	5
Medium High	MH	4
Medium	H	3
Medium Low	ML	2
Low	L	1

Human Health Prioritisation Sites

The next step is to identify potential human health receptors for each of the potential sites. This is done with the aid of the GIS. Each source is located on the GIS and its current use assessed by visually examining the Ordnance Survey Master map, landline layers, aerial photography and local knowledge. The different types of human health receptors are allocated receptor sensitivity scores within the database. The scoring system for allocating sensitivity scores is shown in the table below.

Sensitivity Category	Code	Score
Very High	VH_LU*	6
High	H_LU	5
Medium High	MH_LU	4
Medium	M_LU	3
Medium Low	ML_LU	2
Low	L_LU	1

*e.g. VH_LU equals Very High Land Use etc.

The stage one human health risk score for each site is calculated by multiplying the source hazard score with the receptor sensitivity score. For example, a house with garden built on an area of land historically associated with a gas works would be as follows:

- Gas Works (Very High Risk) Score 6 x Residential with garden (Very High Sensitivity) Score 6
    - ❖ Stage One Summed Score = 36 (6 x 6)

The summed score allows the site to be ranked in order of risk, from very high to low. The prioritisation list is fluid in respect that a site may increase or decrease in priority according to the level of information available on the site and the risks that it may pose.

Risk prioritisation of sites in relation to Controlled Waters & the wider environment

The process of prioritising sites in relation to their potential impact on groundwater receptors is similar to that described for human health. Potential groundwater receptors have been identified using a GIS query checking for intersects between the layer containing the potential sites and a groundwater class layer obtained from the Environment Agency showing the location of groundwater and its classification (i.e. principal, secondary aquifer etc.). Each aquifer type is allocated a sensitivity score. The stage one groundwater risk score is then derived by multiplying the source hazard score by the groundwater class sensitivity score.

Potential surface water receptors again are identified using a GIS query checking for surface water features on the Ordnance Survey Mastermap that lie within 200 metres of the potential site. Were no information on the water quality objective of the surface water features are available, all features lying within 200m are given the precautionary sensitivity score of 3. The stage one surface water prioritisation score is calculated by multiplying the surface water source hazard score with the surface water receptor sensitivity score.

Following this theme, a similar approach is applied to the proximity to ecological sensitive receptors and key properties, such as heritage assets.

Stage Two Prioritisation

Land Use Receptors

The prioritisation begins with a listing of the site's potential contaminants along with an assessment of their potential impact on the receptor of interest. For each receptor, the contaminant (the 'significant contaminant') with greatest potential impact is selected. The direct contact pathway considers exposure to soil contaminants via ingestion or dermal absorption. The inhalation pathway considers exposure to soil contaminants via inhalation of soil contaminant vapours and/or dust. An exposure score is obtained for both the direct contact and inhalation pathways for each site. The main factors influencing the exposure score a site receives are:

- contaminant properties; mainly the volatility and toxicity of the contaminants;
- the risk of receptors coming into contact with the contaminants - depends primarily on the sensitivity of the land use;
- special conditions existing at the site that may make the contaminants more or less accessible e.g. site access, previous remediation

The final land use risk score for the site is arrived at by adding the contaminant, pathway/exposure and special condition scores together.

Groundwater Receptors

The methodology considers groundwater as a receptor, (i.e. it is a valuable resource that we would like to preserve) rather than as a pathway by which pollutants can reach humans or other living organisms. The evaluation of a sites impact on groundwater resources is estimated taking into consideration:

- the groundwater class (i.e. is the site located within Groundwater Source Protection Zone);
- the level of aquifer protection provided by overlying geology (i.e. none, some, good protection)
- the chemical properties of the contaminants including; mobility, toxicity and degradability

A final risk score for the site is derived at by summing the significant contaminant score with those awarded for the aquifer characteristics.

Surface Water Receptors

Surface waters are characterised based on their desired quality objectives and their distance from the pollution point source. As for the other receptors, the method when considering surface water also takes into account the contaminants chemical properties (mobility, toxicity and degradation). The contaminant hazard scores used for surface water receptors are the same as those used for groundwater receptors, with the exception that the degradation processes occurring in surface water will be primarily aerobic.

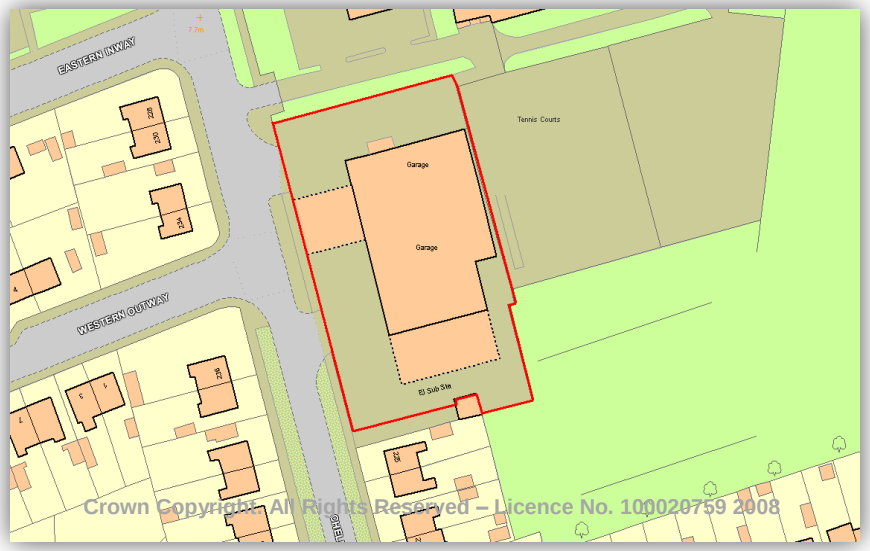
Limitations:

The prioritisation software is not intended to and cannot provide absolute estimations of risk. It is used as a part of a phased approach to risk assessment prior to considering generic or detailed quantitative risk assessments, including contaminant concentrations and distribution as well as more detailed exposure assessment criteria, which is gained as part of an intrusive investigation and risk assessment commonly associated with a 'detailed inspection'.

Toot Hill Filling Station

Site Reference: CL1

- Notice of Determination as contaminated land on 6th April 2004
- Designation as a Special Site on 24th May 2004
- Appropriate Person: Shell (UK) Ltd
- Site Address: Toot Hill Filling Station, Yarborough Road, Grimsby,
- Grid Ref: 524608(E) 408908(N) – Plan as shown above
- Leak from underground fuel tank impacting Controlled Waters (Groundwater Receptor)
- Regulated by Environment Agency
- Status: Remedial work on-going



Franklin Business Centre

Site Reference: CL2

- Notice of Determination as contaminated land on 18th April 2006
- Appropriate Person: Franklin College
- Site Address: Franklin Business Community Centre, Franklin College, Chelmsford Avenue, Grimsby
- Grid Ref: 525582(E) 407985(N) – Plan as shown above
- Fuel contamination impacting shallow soils (Human Health Receptor)
- Regulated by North East Lincolnshire Council
- Status: Remediation completed in 2008

Pollution Control,
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E-mail: environmentteam@nelincs.gov.uk