

Contaminated Land Strategy



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Aim

Under Part 2A of the Environmental Protection Act 1990 (EPA), each authority has a statutory duty to prepare, implement and keep under periodic review its Contaminated Land Inspection Strategy.

The existence of contamination represents a threat to the sustainable development of the country as a whole.

The aim of the strategy is to identify actual and potential contaminated sites within the district by rational, ordered and efficient investigation, to remove unacceptable risk to human health and the environment and prevent the creation of new contaminated sites.

This updated strategy supersedes all previous versions.

Scope

The overarching objectives of the government's policy on contaminated land and the Part 2A regime are set out in statutory guidance:¹

- 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; and
- c) 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.

Land may have become contaminated as a result of a current or historic land use. Examples of potentially contaminating land uses include industrial and waste disposal sites. Spills and leakages of substances may also lead to contamination. Part 2A regime provides a risk-based approach to defining and identifying contaminated land and a means to remediate land that poses a significant risk to human health or the environment. This regime also works closely with planning and development control processes to ensure that potentially contaminated land is identified and risks do not arise from redevelopment through monitoring of applications and changes of land use.

The purpose of this strategy is to ensure a rational, ordered, timely and efficient approach to dealing with potentially contaminated sites within the North Kesteven district.

Background information

Characteristics of the local authority's area

North Kesteven is one of seven districts in the county of Lincolnshire. It is located south of Lincoln, north of Grantham and east of Newark. It covers some 356 square miles (92,000 hectares) and has a population of approximately 113,300² living in more than a hundred different settlements. The settlements range from hamlets of fewer than 100 people to the

¹ Statutory Contaminated Land guidance from Defra published April 2012, available at www.gov.uk/government/publications/contaminated-land-statutory-guidance

² Office for National Statistics (ONS) district level mid year 2016 population estimate

district's main towns of Sleaford (circa 18,800 people) and North Hykeham (circa 15,500 people)³.

North Kesteven District Map



Between the censuses of 2001 and 2011, the population of the district increased by 14.6%, and since 2011 by a further 3.8%. The population is projected to reach 120,000 by 2025⁴.

The district is predominately rural in nature with farming being the dominant land use, though agriculture accounts for a relatively small proportion of employment. 76.7% of people in the district are economically active⁵. The main centres of employment are in Sleaford and North Hykeham, of which North Hykeham is the largest.

North Kesteven has 3 strategic employment locations:

1. Teal Park (North Hykeham – Siemens, Greenray);
2. Network 46 (Witham St Hughs - Turbine Efficiency, Frontier, Danwoods, PDP); and
3. Sleaford Enterprise Park (Bailey Trailers, SHD Composites Ltd, Kiowa).

Other major employers outside these towns include the armed forces (RAF Cranwell, Waddington and Digby), three major food processing factories - Moy Park (Anwick), Tulip (Ruskington) and Branston Potatoes (Branston), as well as Mid UK Recycling (Wilsford) and Kisimul School (Swinderby). Many of the district's residents find employment in the nearby towns of Grantham, Newark and Lincoln.

Within North Kesteven there is a significant quantity of good quality agricultural land; over 90% of the agricultural land is of above average agricultural quality. More than 70% of farmland is used for crops, with nearly half of the area of the district being used for cereal production. However there is also intensive livestock production, particularly chicken and egg production, within the district.

³ Office for national Statistics (ONS) ward level mid year 2016 population estimates

⁴ 2018 figure from Historic England available at www.historicengland.org.uk

⁵ Office of National statistics (ONS), 2016

There are a number of former RAF sites in the district, most of which have been returned to agricultural use or some have been developed on. There may be a legacy of contamination on the undeveloped sites, however as the district has not historically been characterised by industrial development, it is not anticipated that there will be a widespread legacy of contamination.

In the north-western part of the district, there are substantial gravel deposits. Many of the areas have been worked out and left as water features whilst others have been subjected to backfilling.

Residual waste within the district is sent to the Energy from Waste plant situated in North Hykeham.

In the district there are:

- 998 listed buildings⁶,
- 65 scheduled monuments⁷,
- 36 conservation areas⁸,
- 7 sites of special scientific interest⁹.

The area is generally relatively rich in archaeological remains.

Geology

The Lincolnshire Limestone is a principal aquifer and forms the District's distinctive north to south running cliff. The Lincolnshire Limestone provides groundwater for public drinking water, agriculture and industry as well as base flow to rivers and springs such as the Witham, Sleas and Brant. There are also some locally important secondary aquifers within the district, including the Cornbrash Limestone as well as sand and gravel deposits. These aquifers are important for local groundwater abstractions and provide base flow to streams. The sand and gravel deposits are also an important source of minerals for the aggregate industry. These aquifers are sensitive receptors of any forms of contamination.

Source Protection Zones have been defined for groundwater sources such as wells, boreholes and springs that are used for public drinking water supply. They indicate the areas where groundwater is most vulnerable to pollution from land contamination. These zones are used with the Environment Agency's Approach to Groundwater Protection guidance document¹⁰ to protect groundwater from potentially polluting activities. There are three total catchment source protection zones within North Kesteven. These are used to protect public water supplies located near Washingborough, Dunston, Sleaford, Aswarby and Swaton. Within the district and region, certain rock formations can give rise to increased levels of naturally occurring arsenic in soils.

⁶ 2018 figures from Historic England available at www.historicengland.org.uk

⁷ 2018 figures from Historic England available at www.historicengland.org.uk

⁸ 2018 figures from Natural England available through the GOV.UK website at www.gov.uk/check-your-business-protected-area

⁹ 2018 figures from Natural England available through the GOV.UK website at www.gov.uk/check-your-business-protected-area

¹⁰ Detailed guidance on groundwater protection on GOV.UK website at

<https://www.gov.uk/government/publications/groundwater-protection-position-statements>

Many parts of the district suffer from poor surface water drainage and a high water table. The Lincoln Cliff area acts as an aquifer. The major watercourses that run through the district (Witham, Brant, Sleas, and Kyme Eau) have been determined to have 'fair' or better water quality¹¹.

Regulatory Context

Section 57 of the Environment Act 1995 created Part 2A of the EPA and together with the Contaminated Land (England) Regulations 2006 is the legislative framework for the contaminated land regime. The regime places responsibility on North Kesteven District Council (NKDC) as a regulator to:

- Identify any contaminated land within its boundaries;¹²
- Require remediation of contaminated land¹³ unless deemed a "special site", in which case the Environment Agency (EA) becomes the enforcing authority;
- Establish responsibility, in line with current guidance, for the remediation of contaminated land;¹⁴
- Ensure that any necessary remediation action takes place, either by agreement or enforcement action;
- Determine liability for the costs of any remediation; and
- Maintain a public register of contaminated land matters, as may be prescribed.¹⁵

However, development or a change of land use provides the opportunity to deal with land contamination. Other legislation continues to be applicable and may still be used and take precedence over Part 2A:

- Building Regulations 2010 (as amended);
- Environmental Damage (Prevention and Remediation) Regulations 2009;
- Pollution Prevention and Control Act 1999;
- Water Resources Act 1991;
- Town and Country Planning Act 1990;
- Radiative Substances Act 1993;
- Waste management licencing (Part II of the EPA); and
- Statutory nuisance (Part III of the EPA).

As the Part 2A regime is one of several ways in which land contamination can be addressed, the Contaminated Land Statutory Guidance¹⁶ states that "*enforcing authorities should seek to use Part 2A only where no appropriate alternative solution exists*".

¹¹ Lincolnshire State of the Environment Report available at www.lincolnshire.gov.uk/residents/environment-and-planning/environment/environment-report/27159.article

¹² EPA s78B

¹³ EPA s78E

¹⁴ EPA s78F

¹⁵ EPA s78R

¹⁶ Statutory Contaminated Land guidance from Defra published April 2012, available at www.gov.uk/government/publications/contaminated-land-statutory-guidance

The guidance explains that Part 2A is concerned with identifying and dealing with land only where there are unacceptable risks posed by land contamination and that the starting point should be that land is not contaminated unless there is reason to consider otherwise. It goes on to explain the “suitable for use” approach. This introduces the concept of risk assessment on a site-by-site basis, where the level of contamination is assessed on the basis of the current use and circumstances of the land, and a wide range of environmental factors.

The most significant change in the guidance is a new four category system to help local authorities determine whether land is or is not contaminated on the basis of a significant possibility of significant harm to human health.

A similar system can be used for determining whether or not a significant possibility of significant pollution of controlled waters exists. This is described in detail in the guidance.

The guidance does not apply to radioactive contamination of land, which is now covered by separate statutory guidance published by the Department of Energy and Climate Change in April 2012. Both sets of guidance will apply in the event that land is affected by radioactive and non-radioactive contaminants.

National Planning Policy Framework

On 27th March 2012, the former Planning Policy Guidance Notes and Planning Policy Statements (PPS) were replaced by the National Planning Policy Framework (NPPF). This included the withdrawal of PPS23: Planning and Pollution Control that gave legislative and technical guidance in relation to development on land affected by contamination.

The underlying principle in the new NPPF is a presumption in favour of sustainable development. With regard to land contamination, the NPPF states that planning policies and decisions should ensure that new development is appropriate for its location and that developers and/or landowners are responsible for securing the safe development of land. The NPPF encourages the re-use of previously developed (brownfield) land, provided it is not of high environmental value. As a minimum, land should not be capable of being determined as contaminated land under Part 2A after it has been remediated via the planning process.

Role of the Environment Agency

When contaminated land is identified, the local authority must ensure it is managed and dealt with in an appropriate manner. Other agencies and authorities can also have a role. In certain cases, the EA will provide site-specific guidance to local authorities on land contaminated and will assist in identifying contaminated land where there is a risk of pollution of controlled waters.

The EA can take over as the enforcing authority where the local authority identifies a “special site”, as defined in the legislation¹⁷. These can be described as sites which are likely to present the greatest threat to health or the environment.

Strategy Progress to date

NKDC have identified land uses which may have resulted in contamination having occurred via land use data from Ordinance Survey. This data is maintained by the Environmental Protection Unit within the corporate GIS system, to which information has been added as it becomes available.

The Ordinance Survey data is purely based on historic mapping – no further assessment of the site has been made. This enables an initial assessment of risk to be carried out, based on historic land use and current receptor information. There were approximately 13,000 potential sources of contamination identified for North Kesteven, ranging from industrial sites to infilled ponds.

This data has been compared to receptor information to give a prioritisation list for further assessment, based on the potential for contamination, along with the distance to, and sensitivity of, receptors. This list is purely based on land use data, and the presence of a site on the list does not mean contamination will have occurred. The data has also not been checked against other records held; we may hold information demonstrating that sites have already been assessed and remediation undertaken, or been identified as not being required.

To date, no further assessment of these sites has taken place.

The Department for Environment, Food and Rural Affairs (Defra) have advised that they now expect the vast majority of contaminated land to be remediated through the planning process, where (after remediation) as a minimum, land should not be capable of being determined as contaminated land under Part IIA of the EPA. This has been, and continues to be, NKDC’s preferred means of dealing with potentially contaminated sites.

A guide ‘Development on Land Affected by Contamination’ has been developed to give technical guidance for developers, landowners and consultant. Recently updated by the Yorkshire and Lincolnshire Pollution Advisory Group¹⁸ a copy is available on the NKDC website. This guide is available on NKDC’s [website](#)¹⁹.

Relevant applications for planning consent are scrutinised by officers within Environmental Protection. Where these coincide with data held on potentially contaminated sites, or information within the application indicates contamination is a possibility, appropriate action is taken to ensure the site is assessed to ensure it is suitable for the intended use. Furthermore, review, analysis and comment is made on a substantial amount of data in relation to developments of all sizes throughout the district, including desk study, site

¹⁷ Definition of ‘special sites’ is included under the EPA 1990 Part 2A section 78. See glossary for more details.

¹⁸ Yorkshire and Lincolnshire Pollution Advisory Group is a regional grouping encompassing local authorities from the Yorkshire and Lincolnshire area

¹⁹ “Guide to Development on Land Affected by Contamination” is available as a PDF on the Contaminated Land page of the NKDC website - www.n-kesteven.gov.uk/residents/living-in-your-area/environmental-protection/contaminated-land/

investigation, remediation and verification reports. Therefore, a proportion of the prioritised sites have been investigated through the planning system and, where necessary, undergone some form of remediation to make the site "suitable for use". Notable recent developments include the redevelopment of the former Lincoln Castings site in North Hykeham for residential use.

It should be noted that in some cases the remediation undertaken has been limited, for example, residual contamination may well remain at a site intended for commercial use and further remediation would be necessary if the site was to be used for a more sensitive land use, such as housing with gardens.

Surveying sites and site inspection

Part 2A of the EPA requires that local authorities cause their areas to be inspected with a view to identifying contaminated land and to do this in accordance with the statutory guidance. Two types of inspection are intended, they are:

- Strategic inspection: collecting information about previous land uses and prioritising them for further detailed inspection; and
- Detailed inspection: taking soil samples and carrying out risk assessments in order to make determinations about the site in relation to contaminated land.

As an in-house task the detailed inspection of sites through intrusive investigation, analysis of samples (soil, water and gas), risk assessment and remediation is beyond the technical capability of NKDC. Such work would be contracted out to consultants, is expensive and might commonly cost tens of thousands of pounds with upper bound cost estimates for site remediation of several hundred thousand pounds not being uncommon.

Defra has removed grant funding for new cases, though the statutory duty for local authorities to inspect land for land contamination remains. Furthermore Defra suggests that local authorities seek to minimise unnecessary burdens on the taxpayer.

Given the above situation NKDC will not pursue site inspections beyond the strategic inspection stage. That is to say that NKDC will not undertake intrusive sampling (soil, water or gas), risk assessments or remediation exercises unless they are funded by a third party or unless appropriate funds are otherwise allocated. In exceptional circumstances NKDC will carry out and fund the works as necessary and seek recompense where appropriate. These cases will be reviewed and authorised on an individual basis.

In order to achieve the aims of this strategy in identifying actual and potential contaminated sites by rational, ordered and efficient investigation and remove unacceptable risk to human health and the environment as well as prevent the creation of new contaminated sites, NKDC will:

- Reinforce a "suitable for use" approach enabling developers to design and implement appropriate and cost effective remediation schemes as part of their redevelopment project of contaminated sites to bring damaged land back into beneficial use;
- Identify sites which do not come under the EPA, Part 2A but could still be contaminated, to ensure that the land is suitable for its current use or can be made suitable for its intended future development use, where a receptor may be introduced;
- Record information on a public register stored as part of the corporate geographical information system (GIS), showing the sites identified under Part 2A of the EPA; and

- Continue to provide specialised knowledge and guidance when requested as part of the established formal review mechanism in place between Environmental Health, Planning Development Control and Building Control departments. This review mechanism is intended to enable effective monitoring of contaminated land sites undergoing redevelopment or with permission for redevelopment.

Enforcement action

Under the EPA, NKDC is the local enforcing authority for contaminated land in the North Kesteven district.

If land is identified which poses a risk of significant harm or the pollution of controlled waters, NKDC may instigate appropriate enforcement action to clean up the land, to protect residents and the wider environment.

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

- Establish who is responsible for the contamination
- Decide what remedial action is required
- Ensure that the remedial action is carried out
- Determine who should bear what proportion of the costs of the remediation
- Record information about the regulatory action on a public register

All enforcement action is taken in accordance with the relevant legislation and guidance²⁰ and the NKDC Corporate Enforcement policy.²¹

²⁰ Environmental Protection Act 1995 Part 2A section 78A www.legislation.gov.uk/ukpga/1995/25/section/57

²¹ NKDC Enforcement Policy available to view at www.n-kesteven.gov.uk/your-council/how-the-council-works/key-plans-strategies-and-policies/policies/enforcement/

Glossary

The full list of definitions under the EPA Part 2A (Contaminated Land) are available at section 78A of the legislation.²²

Categories of Land

It is the responsibility of NKDC to decide, in accordance with the guidance, whether land in the district is contaminated land. Where the potential receptors are human or controlled waters, the guidance requires the use of 4 categorisations:

Categories 1 and 2 “*encompass land which is capable of being determined as contaminated land on grounds of significant possibility of significant harm to human health*”, or “*cases where the authority considers that a significant possibility of significant pollution of controlled water exists*”.

Categories 3 and 4 “*encompass land which is not capable of being determined on such grounds*” (human health), or “*cases where the authority considers that a significant possibility of such pollution does not exist*”.

Part 2A makes this decision a “positive legal test”, and so the starting assumption should be that land is not contaminated unless there is reason to consider otherwise (rather than assuming that all land is contaminated and then demonstrating that it is not).

Where the potential receptors are ecological systems or property, the guidance does not require 4 categorisations. It does however clarify what receptor types are relevant, and what should be considered “significant harm” or “significant possibility of significant harm”.

Contaminated Land

As defined under the EPA Part 2A section 78A “any land which appears to the local authority in whose area it is situated to be in such a condition, by reason of substances in, on or under the land, that:

- (a) *significant harm* is being caused or there is a significant possibility of such harm being caused; or
- (b) pollution of *controlled waters* is being, or is likely to be, caused.”

Although a site may contain contaminants, it will not necessarily meet the definition of “contaminated land” under EPA Part 2A section 78A. This decision is based on the potential which any contamination has to cause harm, under the current use of the land.

The EPA s78A (2) defines contaminated land as “... *any land which appears to the local authority in whose area the land 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

²² <http://www.legislation.gov.uk/ukpga/1990/43/section/78A>

(b) *significant pollution of controlled waters is being caused, or there is a significant possibility of such pollution being caused.*"

The terms "current use", "harm", "significant harm" and "significant possibility of such harm" have specific meanings in the guidance.

Contaminated Land Statutory Guidance

Statutory contaminated land guidance was published by Defra in April 2012.²³

Controlled waters

"Controlled waters" are all natural inland and near coastal waters, including groundwater. 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".

Pollutant Linkage

The guidance defines what is meant by a "contaminant linkage". This linkage must occur for the land to be defined as contaminated land under Part 2A and all three elements must exist in relation to a particular area of land:

- The source – The cause or source of the contamination is identified. For example, the source might be a leaking tank or contaminated ground or water. The location of the contamination is identified, such as in soils, ground or surface waters.
- A pathway – The pathway is the route the source takes to reach a given receptor. Pathways include, for example, air, water, soil, animals, vegetables and eco-systems.
- A receptor – If contamination is to cause harm, it must reach a receptor. A receptor is a person, animal, plant, eco-system, property or a controlled water. Each receptor must be identified and their sensitivity to the contaminant must be established.

Significant harm

This is defined in the statutory contaminated land guidance.

Significant possibility of significant harm

In determining whether there is a significant possibility of significant harm, the local authority will use 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

More details are available in the statutory contaminated land guidance.

²³ Available at www.gov.uk/government/publications/contaminated-land-statutory-guidance

Source Protection Zones

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 EA and there are restrictions on development of some kinds (e.g. landfill sites) within them.²⁴

Special Site

A contaminated land site that is regulated by the EA instead of the Local Authority. The definition is given in Section 78C (7) and 78D (6) of the Environmental Protection Act 1990.

Principles

NKDC is committed to delivering its services in a way which ensures the needs of the public are met with minimal detrimental impact on the environment. This strategy supports a number of NKDC priorities:

- Our Communities – To promote the well-being, safety and health of NK growing communities;
- Our Environment – Conserve and improve NK's heritage and natural environment;
- Our Council – To be a high performing and value for money Council that is prepared for the future.

Responsibilities

Coordination of the delivery of the contaminated land strategy sits within the Environmental Protection Unit which in turn is within the Environment and Public Protection Division.

This strategy is implemented having regard to the Corporate Enforcement Policy and Service Standards.²⁵

NKDC will act in accordance with the guidance and standards set out in this strategy, and in any supplementary policies.

Supporting procedures

This strategy is supported by the Corporate Enforcement Policy.

Monitoring

A review of the strategy will be carried out every five years or should any changes in legislation or relevant codes of practice or guidance require it to be updated sooner. Any review and updated strategy will be published on the NKDC website.

²⁴ More details available at <http://apps.environment-agency.gov.uk/wiyby/37833.aspx>

²⁵ <https://www.n-kesteven.gov.uk/your-council/how-the-council-works/key-plans-strategies-and-policies/policies/enforcement/>

This strategy and any updates or changes to it will be ratified in accordance with the NKDC constitution.

Consultation

A consultation of this strategy will be undertaken with key stakeholders, partners and the public. Questions and views will be incorporated into the final version of the strategy.

Communication

An electronic copy of this strategy will be published on the NKDC website.

Implementation

This strategy will be implemented and maintained by the Environment and Public Protection division.