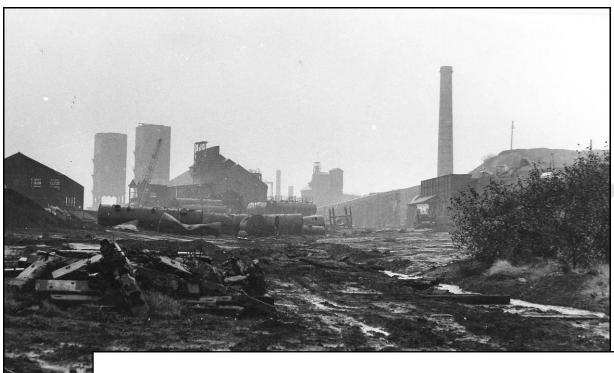
ENVIRONMENTAL PROTECTION ACT 1990 CONTAMINATED LAND STRATEGY 2022







Contaminated Land Strategy 2022



ISSUED BY:

NEWCASTLE-UNDER-LYME BOROUGH COUNCIL CASTLE HOUSE BARRACKS ROAD NEWCASTLE-UNDER-LYME STAFFORDSHIRE ST5 1BL

DATE: 2022

Prepared by	Hal Sambrooke	
Reviewed by	Rob Thomas	22.11.2021

Formally adopted at the Newcastle-under-Lyme Borough Council Cabinet Committee meeting of 2nd February 2022

Date	Revision	Prepared by
2002	First Edition	
2007	Second Edition	Bo Simkin
2014	Third Edition	Hal Sambrooke
2022	Fourth Edition	Hal Sambrooke

CONTENTS

1	INTR	RODUCTION	
	1.1	BACKGROUND	
	1.2	TERMINOLOGY	2
2	LEG	ISLATION	
	2.1	ENVIRONMENTAL PROTECTION ACT 1990	
	2.2	Town and Country Planning Act 1990	3
	2.3	THE ENVIRONMENTAL DAMAGE (PREVENTION AND REMEDIATION) (ENGLAND) REGULATIONS	
	2015		
	2.4	ENVIRONMENTAL PERMITTING (ENGLAND AND WALES) REGULATIONS 2016	4
	2.5	Water Resources Act 1991	4
3	POL	ICIES	5
	3.1	CENTRAL GOVERNMENT POLICY	5
		3.1.1 Contaminated Land Statutory Guidance	5
		3.1.2 National Planning Policy	6
	3.2	ENVIRONMENT AGENCY POLICY	
		3.2.1 River Basin Management Plans	7
	3.3	STAFFORDSHIRE COUNTY COUNCIL POLICY	
		3.3.1 The Minerals Local Plan for Staffordshire 2015 - 2030	8
	3.4	NEWCASTLE-UNDER-LYME BOROUGH COUNCIL POLICY	9
		3.4.1 Newcastle-under-Lyme Borough Council Plan 2018-2022	
		3.4.2 Newcastle-under-Lyme Local Plan 2011	
4	STR	ATEGY OUTLINE	10
	4.1	ROLES AND RESPONSIBILITIES	
		4.1.1 Newcastle-under-Lyme Borough Council	
		4.1.2 The Environment Agency	
		4.1.3 Other Agencies	10
	4.2	AIMS AND OBJECTIVES	
	4.3	PRIORITIES	
	4.4	ADDRESSING CONTAMINATION	
5		BOROUGH OF NEWCASTLE-UNDER-LYME	
	5.1	GENERAL CHARACTERISTICS	
	5.2	HISTORY AND INDUSTRIAL LEGACY	
		5.2.1 Mining and Minerals	16
		5.2.2 Metal Working	
		5.2.3 Chemicals	
		5.2.4 Ceramics	
		5.2.5 Textiles	
		5.2.6 Other Industries	
		5.2.7 World War 2	
		5.2.8 Transport	
		5.2.9 Redevelopment History	
	5.3	GEOLOGY	
		5.3.1 Solid Geology	
		5.3.2 Superficial Geology	
	- 1	5.3.3 Made Ground	
	5.4	WATER RESOURCES	
		5.4.1 Hydrogeology	
		5.4.2 Hydrology	
	5.5	ECOLOGY	
		5.5.1 Sites of Special Scientific Interest	
6	CTD	5.5.2 Local Nature Reserves	
6		ATEGIC INSPECTIONStatutory Guidance	
	6.1	DATA COLLECTION	
	6.2 6.3	DATA PROCESSING – INITIAL PRIORITISATION	
	6.4	DESK STUDIES	
	6.5	OBTAINING FURTHER INFORMATION FROM RELEVANT PARTIES	
	0.0	OBTAINING FORTHER INFORMATION FROM INCLEVANT FARTIES	JI

	6.6	Power	RS OF ENTRY	32
	6.7	SECON	DARY PRIORITISATION	32
7	DETA	AILED II	NSPECTION	33
	7.1	OBTAIN	NING FURTHER INFORMATION	33
	7.2	INTRUS	SIVE SITE INVESTIGATIONS	33
		7.2.1	General Approach	33
			Voluntary Provision of Information	
			Potential Special Sites	
			Council Inspections of Land	
8	RISK	ASSES	SSMENT	35
	8.1		NDS FOR DETERMINATION	
	8.2		ATION OF RISK	
			Current Use	
			Contaminant Linkage	
			Risk Assessment	
			External Expertise	
		8.2.5	Normal Presence of Contaminants	36
			Risk Assessment Methodology	
		8.2.7		38
9	DETE		ATION OF CONTAMINATED LAND	
	9.1		ETERMINATION	
			Notification of Decisions	
			Risk Summary	
		9.1.3	Physical Extent of Land to be Determined	41
			Voluntary Remediation	
	9.2		MINATION	
	_		Public Register	
		9.2.2	Special Sites	41
10	REMI	EDIATION	ON	42
			IE	
			DIATION WORKS	
			Remediation Aims	
			Remediation Standards and Reasonableness	
11 I	LIABI		ND COSTS	
			FICATION OF LIABLE PERSONS	
			DIATION	
			BUTING LIABILITY	
			ERY OF COSTS	
			Cost Recovery Decisions	
12	MISC		EOUS PROVISIONS	
			NG FOR CONTAMINATED LAND STRATEGY	
			RESS ON STRATEGY	
			CIL OWNED LAND	_
Apper			RITISATION FLOW CHART	
			DEFINITION OF SPECIAL SITE	
			C RECISTED OF INFORMATION	

1 INTRODUCTION

1.1 BACKGROUND

The UK has a significant industrial heritage, giving birth to the Industrial Revolution in the late 18th century to become, until the late 19th century, the world's leading economic and industrial power. However, the revolution progressed with little regard for the environment; air, water and land pollution were barely considered in the drive to increase industrial output from new industries based on coal and iron.

Modern industry is regulated much more stringently with a greater awareness of environmental issues such as pollution and climate change. Despite this, an unwelcome legacy from past industrial activity remain - abandoned factories, landfills and other sites, with their environmental impacts are still to be addressed.

Land contamination has significant societal costs, in so far as:

- Exposure to contamination can cause adverse health impacts.
- Contamination can migrate to water bodies, where it can cause adverse impacts on wildlife and drinking water.
- Contamination (especially sulphates) can cause damage to concrete and structures.

Whilst the first laws concerning pollution came into force with the Alkali Act of 1863, the limited understanding of the environment resulted in unintended consequences. This was to be a hallmark of environmental legislation, until the first modern environmental legislation came into force – the Control of Pollution Act 1974.

The first legislation to address contaminated land was contained in Section 57 of the Environment Act 1995; this inserted 'Part 2A' (contaminated land) into the Environmental Protection Act 1990. Section 57 was brought into force by the Contaminated Land Regulations 2001.

The intention of the Environmental Protection Act 1990 Part 2A is to require local authorities to proactively find and treat land contamination that poses a significant risk to public health and the environment.

This document has been prepared in line with current Statutory Guidance, which requires each local authority to adopt a strategic approach to its duties in a formal written strategy.

1.2 TERMINOLOGY

Most of the specific terms used in this document are defined within the text. Definitions of some of the terms and abbreviations are provided below:

- 'Part 2A' means Part 2A of the Environmental Protection Act 1990 (as amended).
- 'NuLBC' means Newcastle-under-Lyme Borough Council.
- 'Borough' means land within the administrative area of Newcastle-under-Lyme Borough Council.
- 'DEFRA' means the Department for Environment, Farming and Rural Affairs.
- 'EA' means the Environment Agency.
- 'Statutory Guidance' means any guidance on contaminated land published for this purpose in accordance with Section 78YA of the Environmental Protection Act 1990.

At the time of writing, statutory guidance is contained within the following publications:

- DEFRA, 'Contaminated Land Statutory Guidance', April 2012.
- Department for Business, Energy & Industrial Strategy 'Radioactive Contaminated Land Statutory Guidance', June 2018.

2 LEGISLATION

2.1 Environmental Protection Act 1990

The Environment Act 1995 amended the Environmental Protection Act 1990 to insert new provisions (Part 2A of the 1990 Act) relating to contaminated land.

Part 2A places a range of obligations onto local authorities, the overall aim of which is to proactively find and treat land contamination that poses a significant risk to public health and the environment.

Broadly speaking, the duties and responsibilities placed on NuLBC under Part 2A include:

- Preparing and implementing a strategy to identify land that may be contaminated land.
- Investigating land to confirm whether or not it is contaminated land.
- Identifying the parties who caused the contamination and attributing liability for its treatment.
- Identifying appropriate ways of treating the contamination.
- Ensuring that the contamination is treated to an appropriate standard.
- Maintaining records of actions that have been carried out.

NuLBC must give consideration to Statutory Guidance when performing its duties.

2.2 Town and Country Planning Act 1990

The most common method of addressing land contamination is through the planning system. Land contamination is not addressed through the primary legislation, but through the National Planning Policy Framework (NPPF), which sets out government planning policy and how it is to be applied.

When making a planning application, the developer has to demonstrate that they understand and can manage any risks associated with land contamination. Planning applications can be conditioned to ensure that the developer discharges their responsibilities to an appropriate standard.

The standards imposed under the planning system are higher than those under Part 2A, as the development has to be demonstrably safe (rather than not presenting an unacceptable risk), although the general principles for assessing and managing land contamination remain the same.

The Building Regulations 2010 (and associated guidance¹) also requires risks from land contamination to be addressed to maintain high standards in the provision of housing.

¹ HM Government, Approved Document C: Site Preparation and Resistance to Contaminants and Moisture, 2013.

2.3 THE ENVIRONMENTAL DAMAGE (PREVENTION AND REMEDIATION) (ENGLAND) REGULATIONS 2015

When there is an imminent threat of 'environmental damage' or actual 'environmental damage' those responsible (operators of economic activities) are required to take immediate steps to prevent that damage, or further damage, and to notify the relevant authority.

'Environmental damage' under the Environmental Damage Regulations 2015 (EDR) is damage to one or more of:

- Protected species and natural habitats
- Surface water or groundwater
- Land

NuLBC has responsibility for damage to land under the EDR (damage to waters is regulated by the Environment Agency, whilst damage to protected species and natural habitats is regulated by Natural England).

Damage to land is defined as:

• Contamination of land by substances, preparations, organisms or micro-organisms that results in a significant risk of adverse effects on human health.

Once NuLBC is aware of a potential case of 'environmental damage', it must determine whether that 'environmental damage' exists.

NuLBC is responsible for deciding what remedial measures need to be implemented, taking account of any measures proposed by the operator, and will consult certain specified people before serving a remediation notice; operators are responsible for carrying out remediation measures.

The EDR only apply to operators of economic activities.

2.4 ENVIRONMENTAL PERMITTING (ENGLAND AND WALES) REGULATIONS 2016

Under the Environmental Permitting Regulations 2016, some environmental permit holders who wish to surrender their permit are obligated to take steps to:

- To avoid any pollution risk resulting from the operation of the installation.
- To return the site of the regulated site to a satisfactory state, having regard to the state of the site before the installation was put into operation.

In short, when a permit is surrendered, the site should be returned to the condition that it was in before the permit was granted.

2.5 WATER RESOURCES ACT 1991

The EA, under Section 161 of the Water Resources Act 1991, can serve a works notice to address situations where pollution has occurred, (or is likely to occur) and where it poses a risk to groundwater.

3 POLICIES

3.1 CENTRAL GOVERNMENT POLICY

3.1.1 CONTAMINATED LAND STATUTORY GUIDANCE

The current government policy on contaminated land is detailed in the Part 2A Statutory Guidance^{2,3}.

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 the burdens faced by individuals, companies and society as a whole are proportionate, manageable and compatible with the principles of sustainable development.

The Government's view is that enforcing authorities should seek to use Part 2A only where no appropriate alternative solution exists.

The Part 2A regime is one of several ways in which land contamination can be addressed; alternative mechanisms for dealing with land contamination include:

- (a) Requiring potential land contamination issues to be addressed in the course of development under planning regulations.
- (b) The use of alternative legislation, such as the EDR.

Under Part 2A, the enforcing authority may need to decide, and how, to act in situations where such decisions are not straightforward and where there may be unavoidable uncertainty underlying some of the facts of each case. In so doing, the authority should use its judgement to strike a reasonable balance between:

- (a) Dealing with risks raised by contaminants in land and the benefits of remediating land to remove or reduce those risks; and
- (b) The potential impacts of regulatory intervention including financial costs to whoever will pay for remediation (including the taxpayer where relevant), health and environmental impacts of taking action, property blight, and burdens on affected people.

The authority should take a precautionary approach to the risks raised by contamination, whilst avoiding a disproportionate approach given the circumstances of each case. The aim should be to balance the various costs and benefits of taking action, with a view to ensuring that the regime produces net benefits, taking account of local circumstances.

² DEFRA, 'Contaminated Land Statutory Guidance', April 2012

³ Department for Business, Energy & Industrial Strategy 'Radioactive Contaminated Land Statutory Guidance', June 2018.

3.1.2 National Planning Policy

The National Planning Policy Framework⁴ seeks to encourage the remediation of land contamination as a function of development, as reflected in the following excerpts:

Section 11: Making effective use of land:

Planning policies and decisions should promote an effective use of land in meeting the need for homes and other uses, while safeguarding and improving the environment and ensuring safe and healthy living conditions. Strategic policies should set out a clear strategy for accommodating objectively assessed needs, in a way that makes as much use as possible of previously-developed or 'brownfield' land.

Planning policies and decisions should:

- give substantial weight to the value of using suitable brownfield land... and support appropriate opportunities to remediate despoiled, degraded, derelict, contaminated or unstable land.
- Section 15: Conserving and enhancing the natural environment:

Planning policies and decisions should contribute to and enhance the natural and local environment by:

 remediating and mitigating despoiled, degraded, derelict, contaminated and unstable land, where appropriate.

Planning policies and decisions should ensure that:

- a site is suitable for its proposed use taking account of ground conditions and any risks arising from land instability and contamination. This includes risks arising from natural hazards or former activities such as mining, and any proposals for mitigation including land remediation (as well as potential impacts on the natural environment arising from that remediation);
- after remediation, as a minimum, land should not be capable of being determined as contaminated land under Part IIA of the Environmental Protection Act 1990; and
- adequate site investigation information, prepared by a competent person, is available to inform these assessments.

Brownfield Registers

In 2017, regulations⁵ were introduced which require local planning authorities to prepare, maintain and publish registers of previously developed (brownfield) land which meet certain criteria and are suitable for residential development.

Some sites may be entered onto the register with planning permission in principle; development constraints presented by land contamination will still need to be satisfactorily addressed, as per any other development.

⁴ Ministry of Housing, Communities & Local Government, 'National Planning Policy Framework', 2021.

⁵ Town and Country Planning (Brownfield Land Register) Regulations 2017.

3.2 ENVIRONMENT AGENCY POLICY

3.2.1 RIVER BASIN MANAGEMENT PLANS

The Borough lies in three River Basin Management Plan areas (Figure 1):

- Humber River Basin District⁶.
- North West River Basin District⁷.
- Severn River Basin District⁸.

The plans have been developed under the Water Framework Directive, which requires EU member states to manage the water environment to a consistent standard.

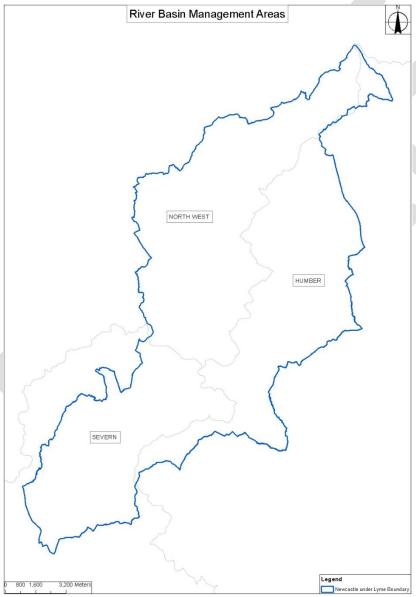


Figure 1 – River Basin Management Areas in Newcastle Borough.

⁶ DEFRA and the EA, 'River Basin Management Plan Humber River Basin District', December 2015 ⁷ DEFRA and the EA, 'River Basin Management Plan North West River Basin District', December 2015

⁸ DEFRA and the EA, 'River Basin Management Plan Severn River Basin District', December 2015

River Basin Management Plans focus on the protection, improvement and sustainable management of water. Many organisations and individuals help to protect and improve the water environment for the benefit of people and wildlife.

The duties of each member state under the Water Framework Directive which are of particular relevance to this Strategy are:

- Prevent deterioration in the status of aquatic ecosystems, protect them and improve the ecological condition of waters.
- Aim to achieve at least good status for all water bodies by 2021. Where this is not
 possible and subject to the criteria set out in the Directive, aim to achieve good status
 by 2027.
- Meet the requirements of Water Framework Directive Protected Areas.
- Conserve habitats and species that depend directly on water.
- Progressively reduce or phase out the release of individual pollutants or groups of pollutants that present a significant threat to the aquatic environment.
- Progressively reduce the pollution of groundwater and prevent or limit the entry of pollutants.

3.3 STAFFORDSHIRE COUNTY COUNCIL POLICY

3.3.1 THE MINERALS LOCAL PLAN FOR STAFFORDSHIRE 2015 - 2030

The Staffordshire Minerals Local Plan, which details Staffordshire County Council policy when determining planning applications (for mineral development) has a number of strategic objectives:

- To provide minerals to support sustainable economic development.
- To locate mineral sites in acceptable locations.
- To ensure that mineral sites operate to high environmental standards.
- To ensure that mineral sites are restored and managed in a way that enhances local amenity and the environment.

Of specific relevance is Policy 4 (minimising the impact of mineral development), which is paraphrased:

In assessing the impact of proposals for mineral development on people, local communities and the environment, where relevant [land contamination] will be taken in to account.

3.4 Newcastle-under-Lyme Borough Council Policy

3.4.1 Newcastle-under-Lyme Borough Council Plan 2018-2022

The NuLBC Plan⁹ defines its overall vision within four priorities:

- Local services that work for local people.
- Growing our people and places.
- A healthy, active and safe borough
- A town centre for all.

To this end, NuLBC has set a specific performance indicator for contaminated land:

• The amount of contaminated land that has been remediated and is now in use (1.1.3).

3.4.2 Newcastle-under-Lyme Local Plan 2011

The Local Plan¹⁰ outlines NuLBC policy when determining planning applications; a number of these relate to contaminated land:

- Policy S1: Sustainable Development
 - In determining planning applications for any type of development, the council will have regard to the likely effect of the development on the general aim of moving towards increased sustainability. To the extent that such matters are material to the consideration of a planning application, both direct and indirect effects will be taken into account, including transport implications, the use of water and non-renewable resources and the management of waste.
- Policy S4: Development and Brownfield, Derelict or Potentially Contaminated Land
 - Preference will be given to the development of brownfield land rather than greenfield land and to development schemes that allow the remediation of derelict or potentially contaminated land. Where permission can be given for the use of land suspected of being contaminated (either from substances present on the site or from those migrating from elsewhere), or unstable, there will be a requirement to carry out appropriate site investigations and remediation measures prior to development.

NuLBC is currently progressing a Local Development Scheme¹¹, which sets out the anticipated key milestones for the adoption of the next version of the Local Plan. At the time of writing, it is anticipated that the next local plan will be adopted in 2024.

⁹ Newcastle-under-Lyme Borough Council Plan 2018-2022.

¹⁰ Newcastle-under-Lyme Borough Council 'Newcastle-under-Lyme Local Plan', 2011.

¹¹ Newcastle-under-Lyme Borough Council 'Local Development Scheme' 2021-2024

4 STRATEGY OUTLINE

4.1 ROLES AND RESPONSIBILITIES

4.1.1 Newcastle-under-Lyme Borough Council

The primary regulator for Part 2A is NuLBC.

NuLBC will carry out its responsibilities under Part 2A in line with Statutory Guidance and any other relevant policies that may apply (including the NuLBC Enforcement Policy).

Within NuLBC, this responsibility falls to Operational Services (Environmental Health).

4.1.2 THE ENVIRONMENT AGENCY

If NuLBC identifies land which it considers would be likely to meet one or more of the descriptions of a special site set out in the Contaminated Land (England) Regulations 2006, it will consult the EA and, subject to agreement, authorise them to carry out an intrusive inspection of the land (Section 7.2.3).

If the EA is to carry out an intrusive inspection, NuLBC may authorise appropriate persons to exercise the powers of entry conferred by section 108 of the Environment Act 1995.

NuLBC regulatory functions under section 78B and 78C of Part 2A (including the inspection duty and the decision as to whether land is contaminated land) remain the sole responsibility of NuLBC.

In any other case, where NuLBC determines land to be contaminated land, it will consult with the EA.

4.1.3 OTHER AGENCIES

Other relevant organisations will be consulted on contaminated land issues as specific circumstances demand, as outlined in Table 1.

Issue **Organisation Environment** Potential impact on controlled waters; investigation of a potential 'special site' Potential impact on features of historic Historic England significance Potential impact on features of ecological significance Staffordshire **Staffordshire County Council owned** land County Council STAFFORDSHIRE moorlands DISTRICT COUNCIL A C H I E V I N G · E X C E L L E N C E City of Impact on or from land adjacent to the **Borough of Newcastle-under-Lyme BOROUGH COUNCIL** Cheshire East Council

Table 1 – Possible consultees on contaminated land issues.

4.2 AIMS AND OBJECTIVES

Part 2A (Section 78B) requires that local authorities cause their areas to be inspected with a view to identifying contaminated land. Relevant sections of the Act include:

- Every local authority shall cause its area to be inspected from time to time for the purpose –
 - a. of identifying contaminated land; and
 - b. of enabling the authority to decide whether any such land is land which is required to be designated as a special site.
- A local authority shall act in accordance with any guidance issued for the purpose by the Secretary of State.

In line with the Statutory Guidance and government policy, the aims of NuLBC with respect to Part 2A are:

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

4.3 PRIORITIES

The Statutory Guidance suggests that NuLBC should take a strategic approach to carrying out its inspection duty under section 78B(1). This approach should be rational, ordered and efficient and it should reflect local circumstances.

The overall aim of the strategic inspection is to identify land that is potentially contaminated within the Borough.

NuLBC has finite resources, which will be directed to sites that appear to present the greatest risk. This is in accordance with Statutory Guidance, which states:

When the local authority is carrying out detailed inspection of land in accordance with Part 2A, it should seek to give priority to particular areas of land that it considers most likely to pose the greatest risk to human health or the environment.

The methodology for prioritising sites for detailed inspection is outlined in Section 6.

4.4 Addressing Contamination

The Statutory Guidance states:

Enforcing authorities should seek to use Part 2A only where no appropriate alternative solution exists. The Part 2A regime is one of several ways in which land contamination can be addressed. For example, land contamination can be addressed when land is developed (or redeveloped) under the planning system, during the building control process, or where action is taken independently by landowners. Other legislative regimes may also provide a means of dealing with land contamination issues, such as building regulations; the regimes for waste, water, and environmental permitting; and the Environmental Damage (Prevention and Remediation) Regulations.

NuLBC will enforce Part 2A only where it is unavoidable. The preference of NuLBC when addressing contamination is:

- 1. To encourage voluntary remediation (which may include supporting site development).
- 2. Where voluntary remediation cannot be negotiated, to use alternative legislation to secure remediation.
- 3. To secure remediation through Part 2A.

The above policy conforms to NuLBC's Enforcement Policy and the Regulators Code¹²

NuLBC's work under Part 2A will be carried out in tandem with other relevant policies in order to identify the optimum means of addressing potential contamination.

-

¹² Department for Business Innovation & Skills, 'Regulators' Code', April 2014

5 THE BOROUGH OF NEWCASTLE-UNDER-LYME

5.1 GENERAL CHARACTERISTICS

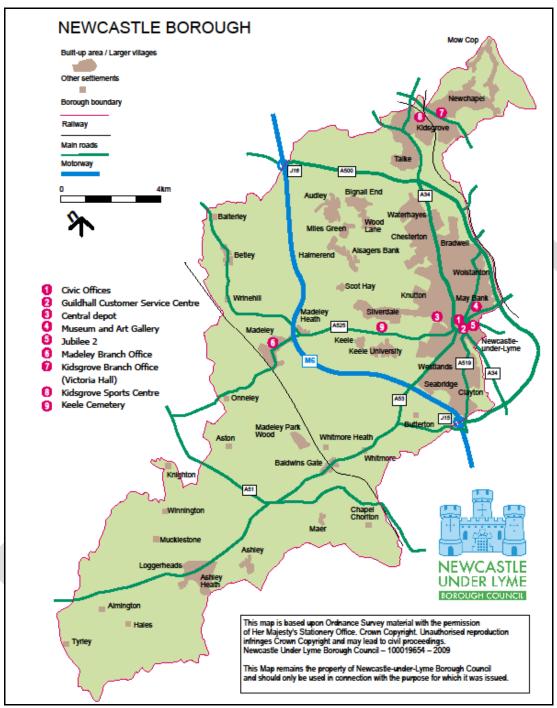


Figure 2 – Map of the Borough.

The Borough of Newcastle under Lyme is located in North Staffordshire, midway between Birmingham and Manchester (Figure 2). It shares borders with the City of Stoke-on-Trent to the east, Cheshire to the north and Shropshire to the west and is served by a well-developed road system, which includes the M6 and A500. The Borough has a population of around 130,000 (as of June 2019), an area of 211 km² and can broadly be split into two areas, each with distinct characteristics.

The northern and eastern (predominantly urban) areas are centred on the towns of Newcastle-under-Lyme and Kidsgrove, and includes Wolstanton, Silverdale, Chesterton, Talke and Butt Lane. These areas are generally contiguous with the City of Stoke-on-Trent, which forms the eastern boundary of NuLBC.

The western and southern areas of the Borough are predominantly rural.

5.2 HISTORY AND INDUSTRIAL LEGACY

Newcastle is named after a 'new castle' that was built in the area in the twelfth century. The 'lyme' part of the name derives either from the Lyme Brook that flows through the town or from the lime forest that covered a large part of land in the medieval period.

In prehistoric times, the area was very sparsely populated. The Cornovii tribe populated the area during the Iron Age and there was a hill fort settlement at this time at Berth Hill, near Maer.

In the first century, the Romans established a fort at Chesterton, a settlement at Holditch and a villa at Hales.

There is evidence of Saxon settlement in the Borough during the 6th to 9th centuries.

Madeley was granted a royal charter in 975 by King Edgar and the area was also mentioned in the Domesday Book of 1086. Bradwell, Wolstanton, Clayton, Knutton, Hill and Chapel Chorlton and Maer also appear in the book, although Newcastle itself does not.

The town of Newcastle was planned and established by Henry II and its first charter was granted in 1173.

There is a wide range of historic industrial activity within the Borough, which is broadly outlined in Jenkins¹³ and adapted below.

¹³ Jenkins, J.G., 'A History of the County of Stafford: Volume 8', 1963.

5.2.1 MINING AND MINERALS

There is a legacy of mining in the Borough, in areas including Silverdale, Apedale, Talke and Kidsgrove. An example is shown in Photo 1.

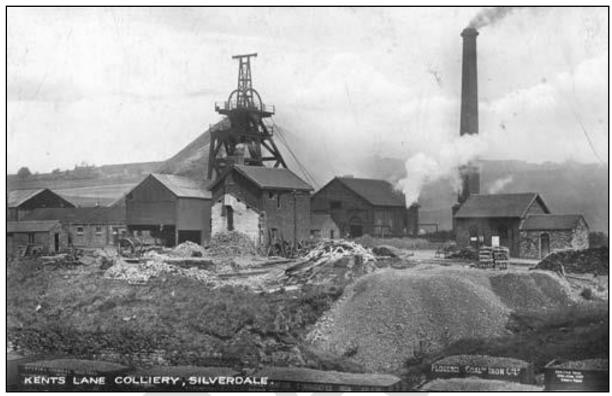


Photo 1 - Kents Lane Colliery, Silverdale, circa 1930-1939 © NuLBC

Minerals won in the Borough include:

- Coal; ironstone was often co-worked with coal where this was economic. Coal was won by deep or opencast mining.
- Clay; clay is still worked at Keele and Knutton.
- Sand and gravel (typically towards the south west of the Borough)
- Millstone Grit; Mow Cop was a local centre for the quarrying and cutting of millstones and querns.

5.2.2 METAL WORKING

The iron industry also goes back to Roman times although it was not really until the fifteenth century that Newcastle had forged a reputation as a centre for the manufacture and marketing of iron. Many villages in the west of the Borough were built up around iron works where a local supply of ironstone was readily available. Examples are shown in Photo 2 and Photo 3.



Photo 2 – Apedale Furnaces © NuLBC

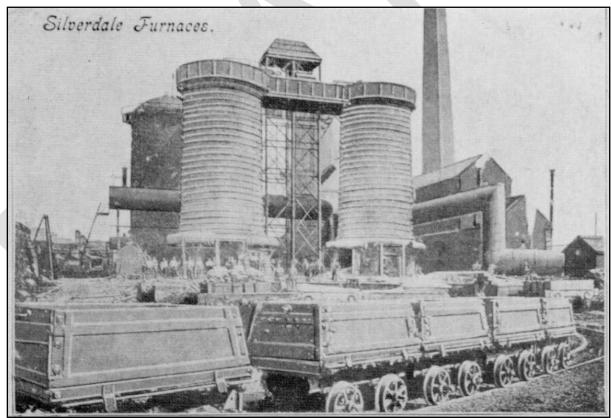


Photo 3 – Silverdale Furnaces © NuLBC

A number of significant metal works and foundries, primarily iron, were historically operated within the Borough; such works were often associated with the larger collieries. Some foundries also worked brass and other metals.

5.2.3 CHEMICALS

Coal was used to manufacture a range of organic (hydrocarbon based) chemicals throughout the Borough.

Coal, when heated in the absence of air, produces town gas (as well as coke and other by-products) for street lighting and domestic use. Municipal gas works were established in Newcastle-under-Lyme, Chesterton, Kidsgrove (Photo 4) and Audley, and operated from the mid-to-late-19th century until the mid-20th century (when it was replaced by natural gas).

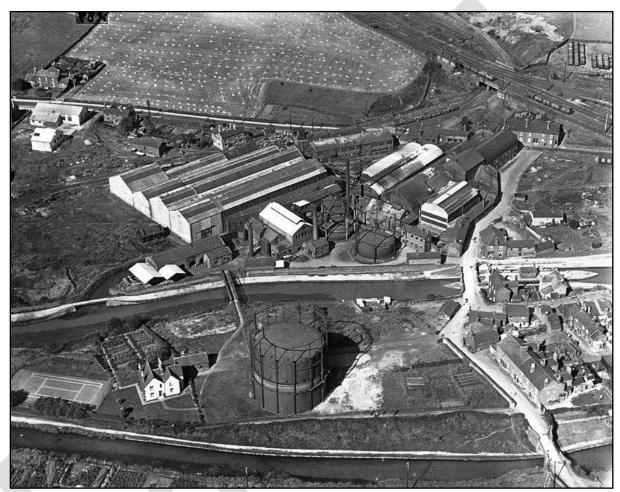


Photo 4 – Kidsgrove Gas Works (foreground) and the Albion Works (background) circa 1930

Very small private gas works were established at Betley Hall and Keele Hall.

Coal and/or shale was also used to manufacture coke, oil, tar and other organic chemicals for industrial use; large coke works were associated with collieries at Apedale, Bignall Hill and Talke. Birchenwood (Photo 5) was the last major coke works in the Borough and closed in 1973; in 1913, when visited by King George V, it was reckoned to produce 1,500,000 gallons of crude benzol and 5,000 tons of ammonium per year.

Other coke works existed in Bradwell and Chatterley, whilst Major & Company operated a tar works at Chesterton.

The North Staffordshire Oil Co. Ltd probably used shale to manufacture paraffin and lubricating oils at their site on the aptly named 'Chemical Lane' at Longport.

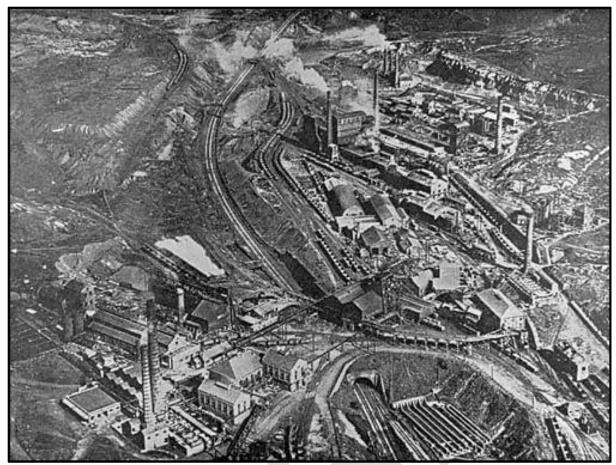


Photo 5 - Birchenwood By-Products and Gas Works circa 1925 © NuLBC

The Albion Works (Photo 4) in Kidsgrove is associated with the manufacture of cadmium-based pigments and currently operates under an IPPC permit.

5.2.4 CERAMICS

Brick and tile manufacturing, made possible by the local abundance of Etruria and Keele clay, is traditionally one of Newcastle's most important local industries, with three works still in operation at Chesterton and Keele.

A pottery manufacturer (long since demolished) was located at the White Hall Works (adjacent to the boundary with the City of Stoke-on-Trent). Whilst brick and tile manufacturers operated in the Borough, pottery was (almost) exclusively manufactured in Stoke-on-Trent.



Photo 6 - Chesterton Brickworks @ NuLBC

5.2.5 TEXTILES

From the 17th to the 19th centuries, Newcastle-under-Lyme had a flourishing felt hat manufacturing industry, which was probably at its peak in the 1820s when a third of the town's population were involved in the industry in over 20 factories; by 1892 only one manufacturer remained in the town.

In 1833 there were three silk mills, but by 1851 this was reduced to two (one in Friarswood Road, the other in Hempstalls Lane); a silk mill existed in Silverdale. A nylon mill was established in Butt Lane around the 1950's.

One of the older industries of the town was that of tanning; in the later 18th century there were three tanners in the town, varying between one and three tanners in the 19th century.

The manufacture of uniforms was carried out at the Enderley Mills in Liverpool Road, which was built in 1881.

5.2.6 OTHER INDUSTRIES

Other historic industries in the Borough included:

- The manufacture of paper at Holborn Paper Mill.
- The manufacture of glue and fertiliser at the Waterloo Works.
- The manufacture of silica in Sutton Street and at Rose Vale, Chesterton.
- The manufacture of tyres in Talke Road.

5.2.7 WORLD WAR 2

During the Second World War two large munitions factories were established in the Cross Heath area and after the war continued in industrial use.

One became the largest manufacturer of motor-car harnesses in the country and the largest producer of telephone and microphone cords, and was also engaged in the manufacture of fluorescent lighting equipment.

The other manufactured fractional h.p. motors, loom motors for the cotton industry, and electric lamps.

The Borough was the victim of (albeit limited) German air raids during World War 2.

5.2.8 TRANSPORT

Historic transport links which were developed in the Borough included a canal network (two main canals were constructed in the Borough and have since largely been infilled) and a well-developed railway network (including the Stoke to Market Drayton Line, constructed in 1850 and decommissioned in 1964).

Many rail lines and tramways were associated with historic industry in the Borough (specific lines on which raw materials and finished products were transported).

Petrol filling stations, many of which have closed, are associated with fuel storage tanks which may present an on-going source of contamination.

5.2.9 REDEVELOPMENT HISTORY

In recent years NuLBC has instigated a number of reclamation schemes for derelict land generally associated with waste disposal, mining and quarrying activities; examples include the reclamation and landscaping of the Apedale Country Park and Birchenwood.

A number of large residential estates have been developed on former opencast mine sites, including those at White Hill and Crackley.

5.3 GEOLOGY

5.3.1 SOLID GEOLOGY

Rock Types and Stratigraphy

The geology of Newcastle-under-Lyme Borough can be broadly split into two:

To the east, the solid geology is dominated by interbedded layers of mudstone, siltstone and sandstone of the Coal Measures and Etruria Formations. Found in and between these layers of bedrock (with the general exception of the Etruria Formation), particularly in the north and west of the Borough, are seams of coal and ironstone.

To the west and, particularly, the south, the geology is dominated by sandstones and conglomerates of the Cheshire Basin, which includes the Sherwood Sandstone Group.

Geological Structures

The rocks of the North Staffordshire coalfield are highly folded and faulted.

There are two major geological folds in the Borough:

- The Western Anticline this runs north-south along the western part of the Borough and has pushed older layers of rock to the surface.
- The Main Syncline This is where the older rocks have 'bowed' and are found at greater depth.

Local faulting is also of significance, particularly in Newcastle and Kidsgrove, where fault density is relatively high.

Subsidence associated with coal mining induced 'fault reactivation' has, in the past, necessitated the demolition of unsafe properties, particularly in Knutton and Chesterton.

Notable faults include:

- The Western Boundary Fault, which runs parallel to the west of the Western Anticline.
- The Apedale Fault, which runs to the east of the Main Syncline.
- The Newcastle Fault, which runs to the east of the Apedale Fault.

An overview of the physical geology of Newcastle-under-Lyme is presented as Figure 3.

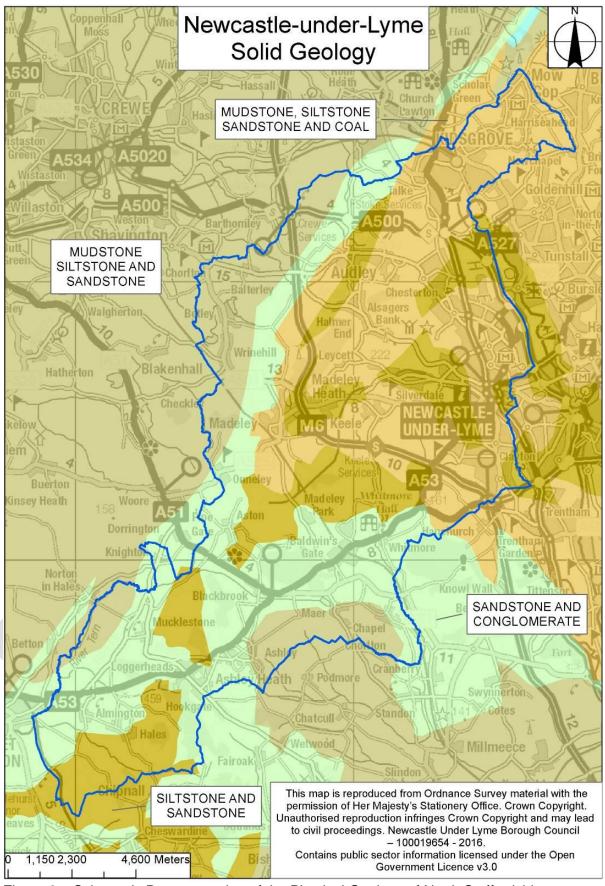


Figure 3 – Schematic Representation of the Physical Geology of North Staffordshire.

5.3.2 SUPERFICIAL GEOLOGY

NuLBC is partially covered by a variety of superficial deposits (these include unconsolidated deposits which have yet to be cemented into bedrock, and soil), which were largely formed by the actions of glaciers during the last ice age.

The area of the Coal Measures tends to be covered by deposits of diamicton – mainly clay, with some gravel of coal and other rocks.

Deposits of fluvioglacial sand and gravel are also evident within the Borough.

Where watercourses are present, superficial deposits tend to be formed of alluvium (river deposits), which consist of a range of clay, silt, sand and gravel.

5.3.3 MADE GROUND

Made ground (i.e. reworked natural and artificial deposits) is found throughout the district, from a diverse range of sources including:

- Colliery spoils.
- Filled mineral excavation pits (i.e. clay, sand and/or gravel pits).
- Relict foundations.
- Filled canals and railway cuttings.

Common made ground constituents include ceramic fragments, wood, glass, concrete/cement, plastic and metal (including slag).

Abandoned mineral workings, railway cuttings and other excavations were often used to landfill wastes such as:

- Colliery spoil.
- Domestic/municipal waste.
- Industrial wastes (generally from local industries).

5.4 WATER RESOURCES

5.4.1 HYDROGEOLOGY

Groundwater Distribution

Groundwater is present throughout the Borough, although it is not distributed evenly. Most of the relatively accessible groundwater is found in the sandstones associated with the Cheshire Basin, in the south and west of the Borough.

Whilst groundwater is found in the Coal Measures and Etruria Formations, it is not transmitted so easily though the mudstone dominated bedrock.

Groundwater Abstractions

Groundwater is utilised as a resource by two different groups: public water undertakers (Severn Trent Water) and private water supply owners.

Severn Trent Water obtain approximately one third of their water supply from groundwater. Seven of their boreholes draw on groundwater held within the Borough and it is important that the groundwater they draw on is protected from contamination.

There are also residents and businesses who draw drinking water directly from a private source, such as a borehole, well or spring; these water sources also require protection from contamination. Private water supplies are generally found in the south of the Borough.

Groundwater Sensitivity

The sandstones of the Cheshire Basin are classified by the EA as 'principal aquifers'. These are layers of rock that have high intergranular and/or fracture permeability - meaning they usually provide a high level of water storage. They may support water supply and/or river base flow on a strategic scale.

The interbedded mudstones and sandstones of the Coal Measures and Etruria Formations are of lesser importance and are classified by the EA as 'secondary aquifers' – meaning that they support water supplies at a local scale.

Groundwater Quality

Groundwater quality varies throughout the Borough, as a function of regional variations in contamination sources and groundwater vulnerability (how likely contamination is to reach groundwater).

Groundwater in the Coal Measures and Etruria Formations is locally at risk from acid rock drainage, and from land contamination associated with historic industries (particularly historic chemical works).

Acid rock drainage is a legacy of coal mining and is evident in several areas of the Borough, most notably in the Trent and Mersey Canal at Kidsgrove and at Parrots Drumble in Talke where surface waters are stained orange (Photo 7).

Whilst historic industry is largely absent in the Cheshire Basin, some local risks exist, for instance from closed landfills or from fuel storage tanks.



Photo 7 – The effects of acid rock drainage shown in a stream that flows through Parrots Drumble, a Staffordshire Wildlife Trust nature reserve.

5.4.2 HYDROLOGY

There are no major rivers within the Borough, although there are a number of streams and brooks.

5.5 ECOLOGY

5.5.1 SITES OF SPECIAL SCIENTIFIC INTEREST

Four (non-geological) sites of special scientific interest (SSSI) are found within the Borough:

- Maer Pool SSSI
- Bentley Mere SSSI
- Black Firs & Cranberry Bog SSSI

The Meres & Mosses of the North West Midlands form a nationally important series of open water and peatland sites. These have developed in natural depressions in the glacial drift left by the ice sheets which covered the Cheshire-Shropshire plain some 15,000 years ago. The majority lie in Cheshire and north Shropshire, with a small number of outlying sites in adjacent parts of Staffordshire and Clwyd.

Black Firs & Cranberry Bog is also designated as a Wetland of International Importance (Ramsar).

Burnt Wood SSSI

An area of semi-natural woodland, situated near Loggerheads, has been designated a SSSI as it represents the least-modified remnants of a formerly extensive tract of ancient broadleaved woodland. It contains representative examples of three types of oakwood on acidic soils derived from rocks of the Upper Coal Measures (Carboniferous) and Bunter Sandstone (Triassic). Such stands were formerly widespread in North Staffordshire but have been significantly reduced in area by reforestation and clearance. The site supports an outstanding terrestrial and freshwater fauna, with butterflies and moths *Lepidoptera* and caddis flies *Trichoptera* especially well represented.

5.5.2 LOCAL NATURE RESERVES

There are four local nature reserves in NuLBC, those areas are:

- Pool Dam Marshes.
- Bateswood.
- Bradwell Wood.
- Bathpool Park.

6 STRATEGIC INSPECTION

6.1 STATUTORY GUIDANCE

The Statutory Guidance directs NuLBC to take a strategic approach to carrying out its inspection duty under section 78B(1). This approach should be rational, ordered and efficient and it should reflect local circumstances.

The method for carrying out a strategic inspection of potentially contaminated land can be summarised thus:

- 1. Data collection.
- 2. Data processing (initial prioritisation).
- 3. Desk studies.
- 4. Secondary prioritisation.

These steps are described below and a flowchart outlining this approach is included as Appendix 1.

NuLBC will start with the assumption that land is not contaminated land unless there is reason to consider otherwise.

6.2 DATA COLLECTION

In order to carry out a strategic inspection of the Borough, it is necessary to obtain as much information on each potentially contaminated site as possible.

In order for land to be contaminated the following must be present:

- A source (of contamination).
- A receptor (something affected by contamination).
- A pathway (a way for the source to affect the receptor).

Relevant receptors are summarised in Table 2.

Type of Receptor	Definition	
Humans	Human health	
	Site of Special Scientific Interest (under section 28 of the Wildlife and Countryside Act 1981)	
	National Nature Reserve (under section 35 of the 1981 Act)	
	Marine Nature Reserve (under section 36 of the 1981 Act)	
	Area of Special Protection for Birds (under section 3 of the 1981 Act)	
Ecological System	'European Site' within the meaning of regulation 8 of the Conservation of Habitats and Species Regulations 2010	
	Any nature reserve established under section 21 of the National Parks and Access to the Countryside Act 1949	
	Any habitat or site accorded protection under paragraph 6 of Planning Policy Statement (PPS 9) on nature conservation (i.e. candidate Special Areas of Conservation, potential Special Protection Areas and listed Ramsar Sites)	
	Crops (including timber)	
	Produce grown domestically or on allotments for consumption	
	Livestock	
Property	Owned or domesticated animals	
	Wild animals which are subject to shooting or fishing rights	
	Buildings (any structure or erection and any part of a building including any part below ground level – does not include buried services such as sewers, water pipes or electricity cables)	
Controlled Waters	Part 3 of the Water Resources Act, except 'ground waters' does not include waters contained in underground strata but above the saturation zone	

Table 2 – Relevant Receptors under Part 2A

NuLBC uses a geographical information system (GIS) to carry out the initial prioritisation and as a tool when preparing desk studies. A GIS is a computer programme that can analyse data that has a spatial element to it (for example, an area of land that was a factory). As with any GIS, if robust conclusions are to be reached, the capture of high quality data is essential.

Some of the information that the council requires has been acquired from third parties, which includes (but is not limited to) historic mapping, geological mapping and aquifer classifications. The council has created other data for use in a GIS as necessary, such as petrol filling stations and potential sources of contamination.

Some of the data that the council has collected is used in the initial prioritisation, whilst some is considered when preparing desk studies. The data that the council has collated in GIS is summarised as Table 3.

Data Source	Source	Pathway	Receptor
Ordnance Survey mapping	✓	✓	✓
Aerial photography	✓	✓	✓
Current land use	✓	✓	✓
Geology	✓	✓	✓
Potential contaminant sources	✓		
Landfills	✓		
Environmental permits	✓		
Hazardous substances & COMAH sites	✓		
Petrol filling stations	✓		
Groundwater vulnerability		\checkmark	
Groundwater source protection zones		✓	✓
Private water supplies			✓
Aquifers			✓
Ecologically sensitive sites			✓
Scheduled Ancient Monuments			✓

Table 3 – Sources of Information

6.3 Data Processing – Initial Prioritisation

Once sufficient data has been obtained, it can be processed in order to screen the Borough for potentially contaminated sites.

The screening process involves identifying overlaps between areas with potential sources and areas with potential receptors, to obtain a list of potentially contaminated sites.

Further data processing is required in order to refine this list and obtain an initial prioritisation list. Data processing takes into account:

- The potential contamination source.
 - How likely contaminants are to have been used at the site.
 - How likely contaminants are to have escaped or migrated from containment or storage on the site.
 - How toxic or hazardous those contaminants might be.
- The receptor sensitivity.
 - Inherently, some receptors are considered to be more sensitive than others.

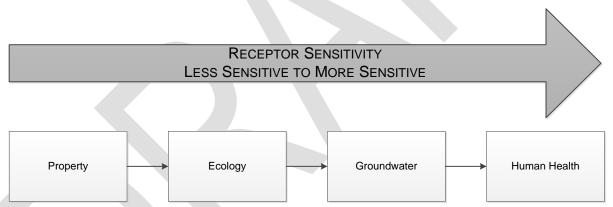


Figure 4 – Receptor Sensitivity for Prioritisation

Following the data processing, a prioritised list of potentially contaminated sites will be developed.

6.4 DESK STUDIES

Following initial prioritisation, a desk study report will be prepared for a manageable number of sites at which land contamination potentially poses a risk; sites where those risks are greatest will be prioritised.

The desk study is the first step when carrying out detailed consideration of whether land is contaminated or not and follows from good practice outlined by the Environment Agency¹⁴ and BS10175¹⁵.

¹⁴ Environment Agency, Land Contamination: Risk Management https://www.gov.uk/guidance/land-contamination-how-to-manage-the-risks

¹⁵ BSi, 'BS10175 Investigation of Potentially Contaminated Sites – Code of Practice', December 2017.

The first step in the preparation of a desk study is to collate all available information on the site. Such information will typically include:

- Historical mapping.
- Aerial photographs.
- Planning records.
- Archive information (such as that held within the Borough Museum, or by Staffordshire County Council).
- Geological information.
- Previous site investigations (if available).
- Coal Authority records (when appropriate).
- Groundwater and environmental designations.

A site walkover survey will usually be carried out to inspect the site for any visual evidence of contamination and to confirm the current (or likely) use of the site. However, this may not always be appropriate and therefore the need for a walkover survey will be considered on a case by case basis.

The landowner, or other relevant parties, may be approached in order to obtain any relevant information that they might hold on the site (where this is considered appropriate). However, such enquiries will be considered on a case by case basis, bearing in mind the desire of NuLBC to minimise public alarm and issues of possible property blight.

Once all the information has been gathered, a conceptual site model can be developed. The conceptual site model considers:

- What contamination may be present and where it may be found.
- What receptors are present (e.g. people living on the site).
- How the contaminants might impact the receptors (e.g. by people eating contaminated home grown produce).

The preliminary risk assessment follows the conceptual site model, by examining the likelihood the identified risks will come to pass.

It may be that the preliminary risk assessment does not consider there to be a significant risk from land contamination. In such instances, further investigation of that site will not be necessary.

6.5 OBTAINING FURTHER INFORMATION FROM RELEVANT PARTIES

It is reasonably possible that the information held by NuLBC on a site may be incomplete – for instance, where records have been lost, or were never submitted to NuLBC.

Such records may include site investigation reports, or details of remediation that was previously undertaken. Sometimes, copies of missing records may be held by third parties, such as the consultants who originally prepared the work, or building control agents (such as the National House Building Council).

During the preparation of a desk study, NuLBC will identify and contact relevant persons (if possible and appropriate) to request information that they may hold on the site. If necessary, enforcement powers will be used (as outlined in section 4.1.2).

6.6 POWERS OF ENTRY

Under Section 108 of the Environment Act 1995, NuLBC, or an authorised agent of NuLBC (such as an EA officer or appointed consultant), may exercise the following powers of entry when undertaking an investigation:

- a. Entry of premises;
- b. Entry with other authorised persons and with equipment or materials;
- c. Examination and Investigation;
- d. Direction that premises be left undisturbed;
- e. Taking measurements, photographs and recordings;
- f. Taking samples of air, water and land;
- g. Subjecting articles or substances suspected of being polluting to tests;
- h. Taking possession of and detaining such articles;
- i. Requiring persons to answer questions;
- Requiring production of records or the furnishing of extracts from computerised records;
- k. Requiring necessary facilities or assistance to be afforded; and
- I. Any other power conferred by the Regulations.

6.7 SECONDARY PRIORITISATION

At this stage, a number of desk studies will have been generated, each detailing the risks posed by land contamination.

The risks will be higher for some sites than others (e.g. where a previous site investigation identifies the presence of contamination). Sites with a higher risk will be prioritised for further investigation.

The secondary prioritisation relies on professional judgement and will inherently be subjective. Therefore, the decision-making process will periodically be documented (as a list) and justified.

The secondary prioritisation list will be reviewed periodically, as additional desk studies are completed.

7 DETAILED INSPECTION

7.1 OBTAINING FURTHER INFORMATION

Following the secondary prioritisation, NuLBC must determine whether there is a reasonable possibility that a significant contaminant linkage exists.

The process for obtaining additional information will continue until there is sufficient evidence for NuLBC to determine whether the land is contaminated or not.

If, at any stage, NuLBC considers that there is no longer a reasonable possibility that a significant contaminant linkage exists, NuLBC will not carry out any further inspection in relation to that linkage.

7.2 Intrusive Site Investigations

7.2.1 GENERAL APPROACH

Where evaluation of all available data suggests that there is a reasonable possibility that a significant contaminant linkage exists, it may be necessary to visit the site and carry out some form of on-site testing, or collect samples for analysis. In every case this will be carried out by a 'suitable person' who is qualified to undertake the work. Inspections will be conducted as quickly and with as little disruption as reasonably possible.

NuLBC will make reasonable efforts to consult the landowner before inspecting their land, unless there is a particular reason why this is not possible.

Should the owner refuse access, or cannot be found, NuLBC will consider using powers of entry as outlined in Section 6.6.

7.2.2 VOLUNTARY PROVISION OF INFORMATION

If a reasonable possibility of a contaminant linkage exists on a site, then NuLBC will consider undertaking an intrusive site inspection of the land in order to obtain sufficient information to determine whether it is contaminated land or not.

However, if a relevant person were to offer to provide such information within a reasonable and specified time, and does so, then NuLBC would not proceed with its own investigation.

7.2.3 POTENTIAL SPECIAL SITES

In the case of potential special sites (as set out in the Contaminated Land (England) Regulations 2006), NuLBC will liaise with the EA and, subject to their advice and agreement, authorise the EA to carry out an intrusive site inspection.

The definition of a special site is reproduced in Appendix 2.

Where the EA carries out an inspection on behalf of NuLBC, regulatory functions under section 78B and 78C of the 1990 Act (including the inspection duty and the decision as to whether land is contaminated land) remain the sole responsibility of NuLBC.

7.2.4 COUNCIL INSPECTIONS OF LAND

Intrusive investigations will be carried out by NuLBC in accordance with current standards of good practice.

Where appropriate, NuLBC may appoint third parties (such as a drilling contractor, consultant, or legal expert) to assist in the performance of its duties.

NuLBC will ensure, as far as possible, that third parties who undertake work on its behalf will be able to demonstrate an appropriate level of competency. The National Planning Policy Framework⁴ defines a competent person (to assess land contamination) as:

A person with a recognised relevant qualification, sufficient experience in dealing with the type(s) of pollution or land instability, and membership of a relevant professional organisation.

8 RISK ASSESSMENT

8.1 GROUNDS FOR DETERMINATION

There are six possible grounds for determining land to be contaminated:

- Significant harm is being caused.
- There is a significant possibility of significant harm being caused.
- Significant pollution of controlled waters is being caused.
- There is a significant possibility of significant pollution of controlled waters.

With respect to harm from radioactivity (which applies only to human health):

- Harm is being caused.
- There is a significant possibility of harm being caused.

In making any determination NuLBC will take all relevant information into account, carry out appropriate scientific assessments, and act in accordance with Statutory Guidance. The determination will identify all three elements of the contaminant linkage and explain their significance.

8.2 EVALUATION OF RISK

8.2.1 CURRENT USE

Under Part 2A, risks are evaluated in the context of the current use of the land. In this case, the current use is determined as:

- The current use of the land.
- Reasonably likely future use of the land which would not require planning permission.
- Any temporary use to which the land is put, or likely to be put, within the bounds of any current planning permission.
- Likely informal use of the land, whether authorised by the owners or occupiers, or not.

8.2.2 CONTAMINANT LINKAGE

For there to be a risk, an appropriate contaminant linkage must exist (as outlined in

- A 'contaminant' is a substance which is in, on, or under the land and which has a
 potential to cause significant harm to a relevant receptor, or to cause significant
 pollution of controlled waters.
- A 'receptor' is something that could be adversely affected by a contaminant namely, a person, ecology, property, or controlled waters (as defined in Table 2).
- A 'pathway' defines how a receptor is or might be exposed to a contaminant.

A contaminant linkage is the relationship between a contaminant, a pathway and a receptor. All three elements of a contaminant linkage must exist in relation to a particular site before it can be considered to be contaminated land under Part 2A, including evidence of the actual presence of contaminants.

NuLBC may encounter sites with multiple contaminant linkages, from a number of different contaminants, pathways and receptors. In such cases, NuLBC may treat contaminants with

similar properties as a single contaminant source, provided that there is a scientifically robust reason for doing so; NuLBC will document the reasons for adopting this approach where appropriate.

8.2.3 RISK ASSESSMENT

The process of risk assessment involves understanding the risks posed by land and the likelihood of those risks being realised.

As more information is obtained on a site, the understanding of the risks will increase and the uncertainties will decrease.

The collection of information continues until it is possible for NuLBC to decide whether or not the site is, or is likely to be, contaminated land.

In order to justify the collection of more information on a site, NuLBC must be satisfied that an unacceptable risk could reasonably exist.

8.2.4 EXTERNAL EXPERTISE

Contaminated land is a complex subject and requires skills in a number of different disciplines. It is possible that, if a site is particularly complex, NuLBC may not have the appropriate in-house expertise to be able to undertake a risk assessment.

Where appropriate, NuLBC may seek the assistance of external experts; such expertise may come from partner organisations or be privately contracted.

8.2.5 NORMAL PRESENCE OF CONTAMINANTS

In some circumstances, substances might be present in what would otherwise be considered 'elevated' concentrations naturally, for instance:

- The natural presence of contaminants that might reasonably be considered typical of an area and have not been shown to pose an unacceptable risk to health or the environment.
- The presence of contaminants from low level diffuse pollution and common human activity (for example, from historic use of leaded petrol and the spreading of ash from domestic coal fires in gardens and allotments that might have been considered typical).

NuLBC will not usually consider such land to be contaminated, unless there is a particular reason to consider that those contaminants might pose a significant risk.

8.2.6 RISK ASSESSMENT METHODOLOGY

There are a range of methodologies for assessing risks from different contaminants to different receptors.

Current methodologies which would typically be used by NuLBC are outlined below, although such use would depend on their specific relevance to the site being investigated. The use of alternative risk assessment methodologies will be considered if there are justifiable reasons for doing so.

Human Health – Soil Contamination

The Contaminated Land Exposure Assessment (CLEA) model¹⁶ would usually be used to assess the risks from land contamination to human health.

NuLBC may also consider:

- Category 4 Screening Values (C4SL)
- Soil Guideline Values (SGV)

C4SL and SGV are both published by the EA and were developed using the CLEA model and are used to identify land that clearly does not pose a 'significant risk of significant harm' to human health. Where a C4SL or SGV is not available, generic assessment criteria (GAC) may be used instead, such as the 'Suitable for Use Levels' 17

The use of screening values will only considered where the assumptions used to generate those values are appropriate.

Human Health – Ground Gas

When assessing risks from ground gas, NuLBC would consider guidance offered in BS8485¹⁸ and CIRIA C665¹⁹.

Human Health - Radioactivity

The risk assessment of potential radioactive contaminated land will be undertaken using the methodology outlined in the Radioactive Contaminated Land Exposure Assessment Model²⁰ (RCLEA).

Groundwater

Risk assessments for groundwater will be undertaken using the EA Remedial Targets Methodology²¹ where appropriate.

Ecology

Whon or

When considering risks to ecological systems, NuLBC would seek to follow the Ecological Risk Assessment²² (ERA) methodology set out by the EA.

¹⁶ EA, Updated Technical Background to the CLEA model – Science Report SC050021/SR3, 2009

¹⁷ Land Quality Press, The LQM/CIEH S4ULs for Human Health Risk Assessment, 2014

¹⁸ BSi, BS8485 Code of practice for the design of protective measures for methane and carbon dioxide ground gases for new buildings, 2019

 ¹⁹ CIRIA, CIRIA C665 Assessing Risks Posed by Hazardous Ground Gases to Buildings, 2007
 ²⁰ EA, Using RCLEA – the Radioactively Contaminated Land Exposure Assessment Methodology, 2011

²¹ EA, Remedial Targets Methodology – Hydrogeological Risk Assessment for Land Contamination, 2006

²² EA, An Ecological Risk Assessment Framework for Contaminants in Soil, 2008

8.2.7 CATEGORISATION OF RISK

Following each phase of risk assessment, land can be placed into one of four categories for human health or controlled water, as outlined in Table 4.

Category	Human Health	Controlled Water
1	A significant possibility of significant harm exists in any case where NuLBC considers there is an unacceptably high probability, supported by robust science based evidence that significant harm would occur if no action is taken to stop it.	There is a strong and compelling case for considering that a significant possibility of significant pollution of controlled waters exists.
2	There is a strong case for considering that the risks from the land are of sufficient concern, that the land poses a significant possibility of significant harm; on the basis of the available evidence, including expert opinion, there is a strong case for taking action under Part 2A on a precautionary basis.	The strength of evidence to put the land into Category 1 does not exist; but nonetheless, on the basis of the available scientific evidence and expert opinion, considers that the risks posed by the land are of sufficient concern that the land should be considered to pose a significant possibility of significant pollution of controlled waters on a precautionary basis.
3	The strong case described above does not exist, and therefore the legal test for significant possibility of significant harm is not met.	The risks are such that the tests set out above are not met, and therefore regulatory intervention under Part 2A is not warranted.
4	There is no risk or the level of risk posed is low.	There is no risk, or the level of risk posed is low.

Table 4 – Risk Categorisation for Human Health and Controlled Water

In the case of radioactive land contamination, harm is being caused where lasting exposure gives rise to a dose that exceeds at least one of the following:

- a. An effective dose of 3 millisieverts per annum.
- b. An equivalent dose to the lens of the eye of 15 millisieverts per annum.
- c. An equivalent dose to the skin of 50 millisieverts per annum (over any area of at least 1cm²).

Risk assessments for ecological systems and property are not categorised in the same way as above, but instead are considered as outlined in Table 5 and Table 6.

Harm which results in an irreversible adverse change, or in some other substantial adverse change, in the functioning of the ecological system within any substantial part of that location. Harm which significantly affects any species of special interest within that location and which endangers the long-term maintenance of the population of that species at that location. In the case of Furnment sites, berrowthich and a prome the

interest at the location in question that they would be beyond

any practicable possibility of restoration.

locations or species typically found there.

Table 5 – Risk Categorisation for Ecological Systems

In the case of European sites, harm which endangers the

favourable conservation status of natural habitats at such

	Significant Harm	Significant Possibility of Significant Harm
Crops, Produce, Livestock, Domestic Animals and Game	For crops, a substantial diminution in yield or other substantial loss in their value resulting from death, disease or other physical damage. Significant harm would be considered when a substantial proportion of the animals or crops are dead or otherwise no longer fit for their intended purpose. Food will be regarded as being no longer fit for purpose when it fails to comply with the provisions of the Food Safety Act 1990. Where a diminution in yield or loss in value is caused by a contaminant linkage, a diminution or loss of over 20% will be regarded a substantial diminution or loss. For domestic pets, death, serious disease or serious physical damage. For other property in this category, a substantial loss in its value resulting from death, disease or other serious physical damage.	Conditions would exist for considering that a significant possibility of significant harm exists to the relevant types of receptor where NuLBC considers that significant harm is more likely than not to result from the contaminant linkage in question, taking into account relevant information for that type of contaminant linkage, particularly in relation to the ecotoxicological effects of the contaminant.
Buildings	Structural failure, substantial damage or substantial interference with any right of occupation. Substantial damage or substantial interference as occurs when any part of the building ceases to be capable of being used for the purpose for which it is or was intended. In the case of a scheduled Ancient Monument, substantial damage will also be regarded as occurring when the damage significantly impairs the historic, architectural, traditional, artistic or archaeological interest by reason of which the monument was scheduled.	Conditions would exist for considering that a significant possibility of significant harm exists to the relevant types of receptor where NuLBC considers that significant harm is more likely than not to result from the contaminant linkage in question during the expected economic life of the building (or in the case of a scheduled Ancient Monument the foreseeable future), taking into account relevant information for that type of contaminant linkage.

Table 6 – Risk Categorisation for Property

9 DETERMINATION OF CONTAMINATED LAND

9.1 Pre-Determination

9.1.1 NOTIFICATION OF DECISIONS

Where NuLBC inspects land and determines that it is not contaminated land, NuLBC will prepare a written statement confirming that it does not consider the land to be contaminated land.

NuLBC will maintain records of its decisions, including the reasons for deciding that land is not contaminated land.

NuLBC will also provide a copy of the written statement to the owners of the land; NuLBC will consider providing the same to other interested parties as appropriate and with due regard to its legal obligations under the Freedom of Information Act 2000 and the Environmental Information Regulations 2004.

Where NuLBC considers that land meets the definition of contaminated land, it will inform the owners and occupiers of the land, as well as any other liable persons, of its intention to determine the land as contaminated land, unless there is an overriding reason not to do so.

NuLBC may consider representations from interested parties before making a formal determination.

9.1.2 RISK SUMMARY

In accordance with the Statutory Guidance, NuLBC will produce a risk summary for any land where it considers it likely that the land may be determined as contaminated.

The risk summary will explain how NuLBC understands the risks and other factors which are relevant in a way that is understandable to non-experts; this will be prepared before a determination is made.

The risk summary will include:

- A summary of NuLBC's understanding of risk, including a description of:
 - The contaminants involved.
 - The identified contaminant linkages or a summary of the linkages.
 - The potential impacts.
 - The estimated possibility that impacts may occur.
 - The timescale over which risks may become manifest.
- A description of how NuLBC understands the uncertainties behind the risk.
- A description of the risks put in context.

- Initial views on possible remediation. This will include:
 - What remediation might entail.
 - How long remediation might take.
 - The likely effects of remediation work on local people and businesses.
 - How much difference it might be expected to make to the risks posed by the contaminated land.
 - An assessment of whether remediation would be likely to produce a net benefit.

9.1.3 Physical Extent of Land to be Determined

NuLBC will identify the area of land that it is considering determining as contaminated land, based on the available information regarding historic land use boundaries and information from site investigations.

Large areas of contaminated land may be sub-divided into smaller plots, with separate determinations for each area, where appropriate. For instance, divisions may be based on the nature of the contaminant linkages which have been identified, historic and current land ownership, liability and the nature of any remediation which may be required.

9.1.4 VOLUNTARY REMEDIATION

NuLBC may decide not to determine the land, if there were an offer to deal with the contamination on a voluntary basis, although such a decision would be taken on a case by case basis, and would involve consideration of a number of factors including (but not limited to):

- Timescales.
- Technical acceptability.
- Proposed remediation standards.

9.2 DETERMINATION

If, following pre-determination consultation, there are no valid reasons to delay determination, NuLBC will formally determine land as contaminated land.

9.2.1 PUBLIC REGISTER

NuLBC maintains a public register of contaminated land, as prescribed by Section 78R of Part 2A (reproduced as Appendix 3).

Information on the public register may also be published on the NuLBC website.

9.2.2 SPECIAL SITES

Where a site is determined to be a special site (Appendix 2), the EA will formally assume the responsibilities of NuLBC with regards to the enforcement of Part 2A.

10 REMEDIATION

10.1 OUTLINE

Once land has been determined as contaminated land, NuLBC must consider how it should be remediated and, where appropriate, it must issue a remediation notice.

Remediation works by breaking the contaminant linkage, thus ensuring that the site no longer poses an unacceptable risk to any receptors; remediation may also involve taking reasonable steps to remedy harm or pollution that has been caused by a contaminant linkage.

10.2 REMEDIATION WORKS

10.2.1 REMEDIATION AIMS

The aim of remediation is to demonstrably address contaminant linkages. Such works may involve the following:

- Reducing or treating the contaminant part of the linkage (e.g. by physically removing contaminants or contaminated soil or water, or by altering the chemical or physical form of the contaminants).
- Breaking, removing or disrupting the pathway parts of the linkage (e.g. a pathway
 could be disrupted by removing or reducing the chance that receptors might be
 exposed to contaminants, for example by installing gas membranes in a property, or
 by sealing land with a material such as clay or concrete).
- Protecting or removing the receptor (e.g. by changing the land use or restricting access to land it may be possible to reduce risks to a more acceptable level).

Remediation may be completed in one operation, or split across several phases.

As well as carrying out remediation, further site investigation may be required in order to provide evidence that the remediation has been carried out to a satisfactory standard (known as verification), or to determine where further works may be required. Further investigations may involve site monitoring, especially where groundwater or ground gas are involved, over a prolonged period in order to obtain sufficient information on which to make a robust decision.

10.2.2 REMEDIATION STANDARDS AND REASONABLENESS

The overall aim of remediation works is to break the contaminant linkage that has been identified on a site. However, NuLBC will consider the reasonableness of the remediation requirements, taking into account the cost of remediation works and the seriousness of any harm that might be caused.

Where NuLBC considers that it is not practicable or reasonable to remediate land to a degree where it stops being contaminated land, it will consider instead whether it would be reasonable to require remediation to a lesser standard.

When considering what is reasonable, NuLBC will take into account:

- The practicability, effectiveness and durability of remediation.
- The health and environmental impacts of the chosen remedial options.
- The financial cost which is likely to be involved.
- The benefits of remediation with regard to the seriousness of the harm or pollution of controlled waters in question.

11 LIABILITY AND COSTS

Under Part 2A, NuLBC is responsible for identifying liable persons and apportioning liability amongst those groups; NuLBC may also recover its costs where it has had to carry out remediation. This section outlines the process that NuLBC will follow when doing so.

11.1 IDENTIFICATION OF LIABLE PERSONS

For each identified significant contaminant linkage, NuLBC will make reasonable enquiries to identify persons who caused or knowingly permitted that linkage. Those persons are classified as follows:

- Class A persons Generally the polluters and those who knowingly permit contamination; this includes developers who leave contamination on a site.
- Class B persons The current owners or occupiers of the land.

If no Class A persons can be identified for a given contaminant linkage, then liability may fall to Class B persons (with the exception of contaminant linkages that fall solely to controlled waters).

Once all of the liable persons have been identified, they are placed in a liability group, based on their class (i.e. a 'Class A liability group' or a 'Class B liability group').

If no liable persons can be established, that contaminant linkage becomes an orphan linkage; NuLBC has the power to carry out remediation of orphan linkages, at its own cost.

11.2 REMEDIATION

Following identification of the liable persons for each contaminant linkage, NuLBC will identify the remediation that is necessary for each contaminant linkage.

Where there is only one contaminant linkage on the contaminated land, all remediation actions will refer to that contaminant linkage. However, if there are two or more contaminant linkages, NuLBC will establish if that remediation action relates to a single contaminant linkage (a single linkage action) or multiple contaminant linkages (a shared action).

Where remediation is a shared action, NuLBC will establish whether the shared action is:

- A common action that which addresses contaminant linkages to which it is referable, and would have been part of the remediation works if each contaminant linkage had been addressed separately.
- A collective action that which addresses contaminant linkages to which it is referable, but would not have been part of the remediation for one or more of those contaminant linkages if they had been addressed separately.

This distinction may be important when considering how costs may be split between liable persons.

11.3 ATTRIBUTING LIABILITY

Where a liability group has been established for a contaminant linkage, that group will be responsible for carrying the cost of remediation.

NuLBC will determine specific liabilities (in terms of exemptions and or the apportionment of costs) in accordance with the requirements of Part 2A and Statutory Guidance.

11.4 RECOVERY OF COSTS

Under Part 2A, if NuLBC carries out remediation it is entitled to recover its reasonable costs for doing so.

11.4.1 Cost Recovery Decisions

When deciding on whether to pursue recovery of costs, NuLBC will have regards to the following principles:

- That the recovery of costs should be as fair and equitable as possible to all stakeholders, including the taxpayer.
- That the 'polluter pays principle' should apply.

NuLBC will seek to recover all of its reasonable costs for remediation; however, NuLBC may waive or reduce the recovery of its costs where it considers this appropriate and reasonable – for instance, in circumstances where:

- The recovery of costs would cause undue hardship to the appropriate person.
- There is a threat of business insolvency or closure.
- There could be adverse impacts on the activities of charities.
- There could be adverse impacts on registered social landlords.
- In the case of Class B persons (and where the presence of contamination was not known about or reasonably foreseeable), where recovering full costs appears to be unreasonable.

NuLBC may be willing to consider deferring the recovery of costs and instead secure them by a charge on the land in question.

When making decisions on the recovery of costs, NuLBC will require relevant information on that person's financial status; when making such requests, NuLBC will consider:

- Accessibility of the information.
- The cost of obtaining the information
- The likely significance of the information.

Any personal financial information obtained by NuLBC will be held in accordance with the requirements of the Data Protection Act 2018.

NuLBC will inform relevant persons of the outcome of cost recovery decisions, and the reasons for making those decisions.

12 MISCELLANEOUS PROVISIONS

12.1 Funding for Contaminated Land Strategy

NuLBC will seek to advance the Contaminated Land Strategy in line with its statutory duties, as budgetary constraints allow.

Where possible, NuLBC will seek funding for the investigation of potentially contaminated land from central government and the EA.

12.2 PROGRESS ON STRATEGY

Progress on addressing contaminated land will be reported on as a performance indicator, as required under the NuLBC Plan (Section 3.4). Progress will also be incorporated into an annual review.

The performance indicator will take into account remediation of potentially contaminated sites through the actions of the planning process, as well as through other means (such as Part 2A or the Environmental Damage Regulations 2015).

12.3 COUNCIL OWNED LAND

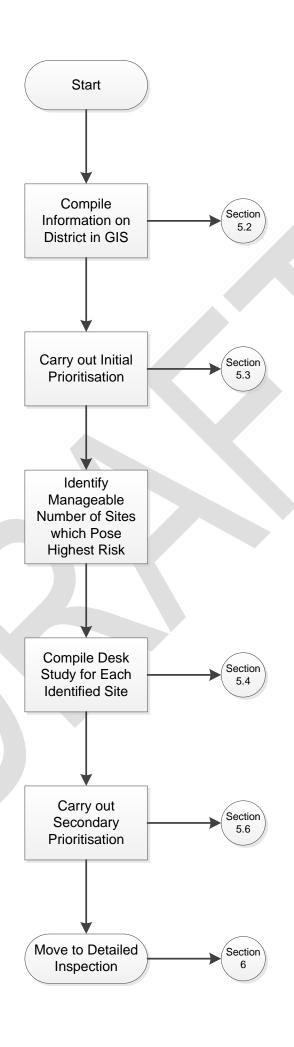
It may be the case that NuLBC may have some liability or other interest in land identified as potentially contaminated under this Strategy. This could occur for a number of reasons, including:

- Land identified as potentially contaminated is owned by NuLBC
- NuLBC has been identified as a potentially liable person (see Section 11).

NuLBC will treat its land on the same basis as privately owned land.

APPENDIX 1 - PRIORITISATION FLOW CHART





APPENDIX 2 - LEGAL DEFINITION OF SPECIAL SITE



The following is an extract from the Contaminated Land (England) Regulations 2006.

Land required to be designated as a special site

2.—

- (1) Contaminated land of the following descriptions is prescribed for the purposes of section 78C(8) as land required to be designated as a special site—
 - (a) land affecting controlled waters in the circumstances specified in regulation 3;
 - (b) land which is contaminated land by reason of waste acid tars in, on or under the land:
 - (c) land on which any of the following activities have been carried on at any time—
 - (i) the purification (including refining) of crude petroleum or of oil extracted from petroleum, shale or any other bituminous substance except coal; or
 - (ii) the manufacture or processing of explosives;
 - (d) land on which a prescribed process designated for central control has been or is being carried on under an authorisation, where the process does not solely consist of things being done which are required by way of remediation;
 - (e) land on which an activity has been or is being carried on in a Part A(1) installation or by means of Part A(1) mobile plant under a permit, where the activity does not solely consist of things being done which are required by way of remediation;
 - (f) land within a nuclear site;
 - (g) land owned or occupied by or on behalf of-
 - (i) the Secretary of State for Defence;
 - (ii) the Defence Council,
 - (iii) an international headquarters or defence organisation, or
 - (iv) the service authority of a visiting force, being land used for naval, military or air force purposes;
 - (h) land on which the manufacture, production or disposal of—
 - (I) chemical weapons,
 - (ii) any biological agent or toxin which falls within section 1(1)(a) of the Biological Weapons Act 1974(1) (restriction on development of biological agents and toxins), or

- (iii) any weapon, equipment or means of delivery which falls within section 1(1)(b) of that Act (restriction on development of biological weapons), has been carried on at any time;
- (i) land comprising premises which are or were designated by the Secretary of State by an order made under section 1(1) of the Atomic Weapons Establishment Act 1991(2) (arrangements for development etc of nuclear devices);
- (j) land to which section 30 of the Armed Forces Act 1996(3) (land held for the benefit of Greenwich Hospital) applies;
- (k) land which is contaminated land wholly or partly by virtue of any radioactivity possessed by any substance in, on or under that land; and
- (I) land which—
 - (i) is adjoining or adjacent to land of a description specified in any of sub–paragraphs (b) to (k); and
 - (ii) is contaminated land by virtue of substances which appear to have escaped from land of such a description.
- (2) For the purposes of paragraph (1)(b), 'waste acid tars' are tars which—
 - (a) contain sulphuric acid;
 - (b) were produced as a result of the refining of benzole, used lubricants or petroleum; and
 - (c) are or were stored on land used as a retention basin for the disposal of such tars.
- (3) In paragraph (1)(d), 'authorisation' and 'prescribed process' have the same meanings as in Part 1 of the 1990 Act (integrated pollution control and air pollution control by local authorities) and the reference to designation for central control is a reference to designation under section 2(4) (which provides for processes to be designated for central or local control).
- (4) In paragraph (1)(e), 'Part A(1) installation', 'Part A(1) mobile plant' and 'permit' have the same meanings as in the Pollution Prevention and Control (England and Wales) Regulations 2000(4).
- (5) In paragraph (1)(f), 'nuclear site' means—
 - (a) any site in respect of which, or part of which, a nuclear site licence is for the time being in force; or
 - (b) any site in respect of which, or part of which, after the revocation or surrender of a nuclear site licence, the period of responsibility of the licensee has not come to an end.
- (6) In paragraph (5), 'nuclear site licence', 'licensee' and 'period of responsibility' have the meanings given by the Nuclear Installations Act 1965(5).

- (7) For the purposes of paragraph (1)(g), land used for residential purposes or by the Navy, Army and Air Force Institutes must be treated as land used for naval, military or air force purposes only if the land forms part of a base occupied for naval, military or air force purposes.
- (8) In paragraph (1)(g)—
 - 'international headquarters' and 'defence organisation' mean, respectively, any international headquarters, and any defence organisation, designated for the purposes of the International Headquarters and Defence Organisations Act 1964(6);
 - 'service authority' and 'visiting force' have the same meanings as in Part 1 of the Visiting Forces Act 1952(7).
- (9) In paragraph (1)(h), 'chemical weapon' has the same meaning as in subsection (1) of section 1 of the Chemical Weapons Act 1996(8), disregarding subsection (2) of that section.

Pollution of controlled waters

- 3. The circumstances to which regulation 2(1)(a) refers are where—
 - (a) controlled waters which are, or are intended to be, used for the supply of drinking water for human consumption are being affected by the land and, as a result, require a treatment process or a change in such a process to be applied to those waters before use, so as to be regarded as wholesome within the meaning of Part 3 of the Water Industry Act 1991(1) (water supply);
 - (b) controlled waters are being affected by the land and, as a result, those waters do not meet or are not likely to meet the criterion for classification applying to the relevant description of waters specified in regulations made under section 82 of the Water Resources Act 1991(2) (classification of quality of waters); or
 - (c) controlled waters are being affected by the land and—
 - (i) any of the substances by reason of which the pollution of the waters is being or is likely to be caused falls within any of the families or groups of substances listed in paragraph 1 of Schedule 1 to these Regulations; and
 - (ii) the waters, or any part of the waters, are contained within underground strata which comprise wholly or partly any of the formations of rocks listed in paragraph 2 of Schedule 1 to these Regulations.

SCHEDULE 1

SPECIAL SITES

1. The families and groups of substances relevant for the purposes of regulation 3(c)(i) are—

organohalogen compounds and substances which may form such compounds in the aquatic environment;

organophosphorus compounds;

organotin compounds;

substances which possess carcinogenic, mutagenic or teratogenic properties in or via the aquatic environment;

mercury and its compounds;

cadmium and its compounds;

mineral oil and other hydrocarbons;

cyanides.

2. The formations of rocks relevant for the purposes of regulation 3(c)(ii) are—

Pleistocene Norwich Crag;

Upper Cretaceous Chalk;

Lower Cretaceous Sandstones;

Upper Jurassic Corallian;

Middle Jurassic Limestones;

Lower Jurassic Cotteswold Sands;

Permo—Triassic Sherwood Sandstone Group [this geological unit is found within the Borough];

Upper Permian Magnesian Limestone;

Lower Permian Penrith Sandstone;

Lower Permian Collyhurst Sandstone;

Lower Permian Basal Breccias, Conglomerates and Sandstones;

Lower Carboniferous Limestones.

APPENDIX 3 - PUBLIC REGISTER OF INFORMATION



The following is an extract from the Environmental Protection Act 1990 Part 2A.

78R Registers.

- (1) Every enforcing authority shall maintain a register containing prescribed particulars of or relating to—
 - (a) remediation notices served by that authority;
 - (b) appeals against any such remediation notices;
 - (c) remediation statements or remediation declarations prepared and published under section 78H above;
 - (d) in relation to an enforcing authority in England and Wales, appeals against charging notices served by that authority;
 - (e) notices under subsection (1)(b) or (5)(a) of section 78C above which have effect by virtue of subsection (7) of that section as the designation of any land as a special site;
 - (f) notices under subsection (4)(b) of section 78D above which have effect by virtue of subsection (6) of that section as the designation of any land as a special site;
 - (g) notices given by or to the enforcing authority under section 78Q(4) above terminating the designation of any land as a special site;
 - (h) notifications given to that authority by persons—
 - (i) on whom a remediation notice has been served, or
 - (ii) who are or were required by virtue of section 78H(8)(a) above to prepare and publish a remediation statement, of what they claim has been done by them by way of remediation;
 - (j) notifications given to that authority by owners or occupiers of land—
 - (i) in respect of which a remediation notice has been served, or
 - (ii) in respect of which a remediation statement has been prepared and published, of what they claim has been done on the land in question by way of remediation;
 - (k) convictions for such offences under section 78M above as may be prescribed;
 - (I) such other matters relating to contaminated land as may be prescribed; but that duty is subject to sections 78S and 78T below.
- (2) The form of, and the descriptions of information to be contained in, notifications for the purposes of subsection (1)(h) or (j) above may be prescribed by the Secretary of State.

- (3) No entry made in a register by virtue of subsection (1)(h) or (j) above constitutes a representation by the body maintaining the register or, in a case where the entry is made by virtue of subsection (6) below, the authority which sent the copy of the particulars in question pursuant to subsection (4) or (5) below—
 - (a) that what is stated in the entry to have been done has in fact been done; or
 - (b) as to the manner in which it has been done.
- (4) Where any particulars are entered on a register maintained under this section by the appropriate Agency, the appropriate Agency shall send a copy of those particulars to the local authority in whose area is situated the land to which the particulars relate.
- (5) In any case where—
 - (a) any land is treated by virtue of section 78X(2) below as situated in the area of a local authority other than the local authority in whose area it is in fact situated, and
 - (b) any particulars relating to that land are entered on the register maintained under this section by the local authority in whose area the land is so treated as situated, that authority shall send a copy of those particulars to the local authority in whose area the land is in fact situated.
- (6) Where a local authority receives a copy of any particulars sent to it pursuant to subsection (4) or (5) above, it shall enter those particulars on the register maintained by it under this section.
- (7) Where information of any description is excluded by virtue of section 78T below from any register maintained under this section, a statement shall be entered in the register indicating the existence of information of that description.
- (8) It shall be the duty of each enforcing authority—
 - (a) to secure that the registers maintained by it under this section are available, at all reasonable times, for inspection by the public free of charge; and
 - (b) to afford to members of the public facilities for obtaining copies of entries, on payment of reasonable charges; and, for the purposes of this subsection, places may be prescribed by the Secretary of State at which any such registers or facilities as are mentioned in paragraph (a) or (b) above are to be available or afforded to the public in pursuance of the paragraph in question.
- (9) Registers under this section may be kept in any form.

78S Exclusion from registers of information affecting national security.

(1) No information shall be included in a register maintained under section 78R above if and so long as, in the opinion of the Secretary of State, the inclusion in the register of that information, or information of that description, would be contrary to the interests of national security.

- (2) The Secretary of State may, for the purpose of securing the exclusion from registers of information to which subsection (1) above applies, give to enforcing authorities directions—
 - (a) specifying information, or descriptions of information, to be excluded from their registers; or
 - (b) specifying descriptions of information to be referred to the Secretary of State for his determination; and no information referred to the Secretary of State in pursuance of paragraph (b) above shall be included in any such register until the Secretary of State determines that it should be so included.
- (3) The enforcing authority shall notify the Secretary of State of any information which it excludes from the register in pursuance of directions under subsection (2) above.
- (4) A person may, as respects any information which appears to him to be information to which subsection (1) above may apply, give a notice to the Secretary of State specifying the information and indicating its apparent nature; and, if he does so—
 - (a) he shall notify the enforcing authority that he has done so; and
 - (b) no information so notified to the Secretary of State shall be included in any such register until the Secretary of State has determined that it should be so included.

78T Exclusion from registers of certain confidential information.

- (1) No information relating to the affairs of any individual or business shall be included in a register maintained under section 78R above, without the consent of that individual or the person for the time being carrying on that business, if and so long as the information—
 - (a) is, in relation to him, commercially confidential; and
 - (b) is not required to be included in the register in pursuance of directions under subsection (7) below; but information is not commercially confidential for the purposes of this section unless it is determined under this section to be so by the enforcing authority or, on appeal, by the Secretary of State.
- (2) Where it appears to an enforcing authority that any information which has been obtained by the authority under or by virtue of any provision of this Part might be commercially confidential, the authority shall—
 - (a) give to the person to whom or whose business it relates notice that that information is required to be included in the register unless excluded under this section; and
 - (b) give him a reasonable opportunity—
 - (i) of objecting to the inclusion of the information on the ground that it is commercially confidential; and

- (ii) of making representations to the authority for the purpose of justifying any such objection; and, if any representations are made, the enforcing authority shall, having taken the representations into account, determine whether the information is or is not commercially confidential.
- (3) Where, under subsection (2) above, an authority determines that information is not commercially confidential—
 - (a) the information shall not be entered in the register until the end of the period of twenty-one days beginning with the date on which the determination is notified to the person concerned;
 - (b) that person may appeal to the Secretary of State against the decision; and, where an appeal is brought in respect of any information, the information shall not be entered in the register until the end of the period of seven days following the day on which the appeal is finally determined or withdrawn.
- (4) An appeal under subsection (3) above shall, if either party to the appeal so requests or the Secretary of State so decides, take or continue in the form of a hearing (which must be held in private).
- (5) Subsection (10) of section 15 above shall apply in relation to an appeal under subsection (3) above as it applies in relation to an appeal under that section.
- (6) Subsection (3) above is subject to section 114 of the Environment Act 1995 (delegation or reference of appeals etc).
- (7) The Secretary of State may give to the enforcing authorities directions as to specified information, or descriptions of information, which the public interest requires to be included in registers maintained under section 78R above notwithstanding that the information may be commercially confidential.
- (8) Information excluded from a register shall be treated as ceasing to be commercially confidential for the purposes of this section at the expiry of the period of four years beginning with the date of the determination by virtue of which it was excluded; but the person who furnished it may apply to the authority for the information to remain excluded from the register on the ground that it is still commercially confidential and the authority shall determine whether or not that is the case.
- (9) Subsections (3) to (6) above shall apply in relation to a determination under subsection (8) above as they apply in relation to a determination under subsection (2) above.
- (10) Information is, for the purposes of any determination under this section, commercially confidential, in relation to any individual or person, if its being contained in the register would prejudice to an unreasonable degree the commercial interests of that individual or person.
- (11) For the purposes of subsection (10) above, there shall be disregarded any prejudice to the commercial interests of any individual or person so far as relating only to the value of the contaminated land in question or otherwise to the ownership or occupation of that land.