Forest of Dean
DISTRICT COUNCIL

2026-2031

Contaminated Land Inspection Strategy for the Forest of Dean

Update and Review

Forest of Dean District Council

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FINAL

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1 Introduction

In the United Kingdom there is a substantial legacy of land that is affected by contamination arising from a diverse industrial history as well as mining and waste disposal activities. A number of government regimes now exist to prevent any ongoing contamination from such activities and to deal with the legacy of historical contamination through redevelopment opportunities. However, there remains a need for intervention where historical land contamination poses unacceptable risks to human health and the environment where no alternative solution to address the risk exists.

Legislation relating to contamination has existed in England since April 2000, when Part 2A of the Environmental Protection Act 1990 ('Part 2A') came into force. This required local authorities to publish a strategy that sets out how it will deal with contaminated land and keep this under periodic review. Following an amendment to the statutory guidance in 2012, local authorities are required to revise the content of their strategies to take account of the changes.

This strategy replaces the Council's previous strategy (October 2016) and explains how Forest of Dean District Council (FoDDC) will implement the contaminated land regime over the period 2026-2031 as required by Part 2A and in accordance with the revised statutory guidance.

Part 2A should only be used where no appropriate alternative to address land contamination is available. This includes dealing with land contamination as part of the development process (planning and building control), voluntary action, or other regulatory regimes such as environmental permitting.

There is no formal approval process for local authority inspection strategies, however in preparing this strategy the following consultation process will be adopted:

i. Preparation of a draft strategy with inputs from the Council's Environmental Health and Senior Leadership team;
ii. Draft Strategy considered by the Cabinet Member for the Environment;
iii. Draft Strategy considered by Executive Leadership Team and the Cabinet Member for the Environment;
iv. Draft strategy considered by Cabinet;
v. Draft strategy released for external consultation, including other Contaminated Land Officers from the Gloucestershire Contaminated Land Officer's Group, the Environment Agency, Gloucestershire County Council, NHBC and UK Health Security Agency; and
vi. Final version of strategy to be approved by Cabinet before wider distribution.

1.1 General Policy of Forest of Dean District Council

The FoDDC's Plan is entitled '*Respond to the Climate and Nature Emergency for a Fairer, Greener Forest'*. The Council's vision is:

'*We strive to meet our current needs while taking into account the needs of the Forest's future generations*.' The plan will help outline a path to create thriving communities, decarbonising, protecting nature and fostering a sustainable local economy.

In accordance with the National Planning Policy Framework (NPPF), the Forest of Dean District Council Core Strategy[1], adopted in February 2012, has policies to deal with land contamination during the assessment of planning applications:

CSP. 1 Design, environmental protection and enhancement (strategic objective: providing quality environments).

- The impact of the development on any land contamination or risk to the development from ground instability including the mining legacy. Proposals must undertake appropriate remediation measures and verification works where contamination and/or stability issues are identified.

CSP.4 Development principles, development at settlements (strategic objectives: to promote thriving sustainable communities, facilitate regeneration)

- The use of greenfield land can be minimised first by the use of previously developed land where possible and then by careful selection of location.

1.2 Brownfield Land Register

The Town and Country Planning (Brownfield Land Register) Regulations 2017[2] require each planning authority responsible for determining applications for housing development to prepare, maintain and publish a register of previously developed land in their area which they consider appropriate for residential development.

The register is designed to provide transparent, up to date and consistent information about suitable and available brownfield sites in the local area, assessed as appropriate for housing.

FoDDC's register is available at: Local plan supporting information - Forest of Dean District Council

FoDDC has also produced a Developer's Guide for Planning Applications which is available here: developer-s-guide-fod-final-feb-2025.pdf

[1] Core Strategy Adopted Version
[2] The Town and Country Planning (Brownfield Land Register) Regulations 2017

1.3 Policy relating to Land Contamination

The UK has established a policy and legal framework aimed at minimising the future incidence of contaminated land. This will ensure appropriate action is taken to deal with existing contamination where it poses unacceptable risks to health and the environment and encourages the reclamation and recycling of 'brownfield' land for beneficial use.

In the context of sustainable development, environmental and economic policy areas are key considerations in developing this Strategy because they:

- ensure unacceptable risks to human health and the environment are evaluated, thus ensuring a cleaner and healthier environment for local people and wildlife;
- encourage the prudent use of land and social resources; and
- ensure that the cost burdens of undertaking remediation are proportionate, manageable and economically sustainable.

Land contamination can take a number of forms and occur in a variety of places. Many different people and organisations are, therefore, likely to take an interest in a contaminated site, whether contamination has been proven or is suspected.

FoDDC recognises that decisions about contaminated land are not made on a purely technical basis. There will be a variety of regulatory, commercial, financial, legal and societal factors, which also affect how particular contaminated land issues should be addressed. The Council also recognises that, as with its approach to local government in general, it is important that decisions about contaminated land are defensible and transparent.

This document was adopted on 11th June 2026 and is presented as FoDDC's Contaminated Land Inspection Strategy. It is available on the Council's website and is provided to all groups of people ('stakeholders') who have an interest in a contaminated land strategy for the district.

2 Legislative Background

The government's main policy statement on contaminated land is contained within a DEFRA guidance document: Environmental Protection Act 1990, Part 2A: Contaminated Land Statutory Guidance, April 2012 ('the Statutory Guidance')[3]. The principles of this have also been incorporated into the Ministry of Housing, Communities & Local Government's National Planning Policy Framework (NPPF, 2025)[4], first issued in March 2012 and last revised in February 2025. A consultation for further amendments to the NPPF has recently ended at the time of writing, so more changes are likely in the future.

UK policy on land contamination as set out in the Framework, as well as emphasising the government's commitment to the environmental principles of "sustainable development" and "the polluter pays", requires that existing contamination which poses a threat to health or to the environment is controlled and treated within the "suitable for use" approach.

The statutory basis of the regime is to be found in Part 2A of the Environmental Protection Act 1990[5] (which was inserted by the Environment Act 1995)[6].

2.1 Part 2A objectives

The overarching objectives of the Government's revised policy on contaminated land 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 principals of sustainable development.

2.2 The requirement for a strategic approach

All local authorities are required to take a strategic approach to the identification of land in their area that merits detailed individual inspection. The Statutory Guidance requires that the approach adopted should be rational, ordered and efficient and it should reflect local circumstances. The local authority should set out its approach as a written strategy, which it should formally adopt and publish and which should be reviewed periodically.

The Statutory Guidance details the elements which should be included in the strategy.

2.3 Definition of Contaminated Land

Section 78A(2) of the Environmental Protection Act defines contaminated land as follows:

[3] Environmental Protection Act 1990: Part 2A - Contaminated Land Statutory Guidance
[4] National Planning Policy Framework
[5] Environmental Protection Act 1990
[6] Environment Act 1995

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

-Significant harm is being caused or there is the significant possibility of such harm being caused; or

-Pollution of controlled waters is being, or is likely to be, caused.

With respect to controlled waters, the Water Act 2003[7] amended the second part of the definition so that it applies only where:

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

This change in the legislation became effective as of 6th April 2012.

The presence of a contaminant in land does not of itself mean that it is contaminated land within the meaning of Part 2A. The Statutory Guidance refers to Contaminant Linkages where one or more **contaminant > pathway > receptor** linkages exist. Receptors are defined as, *" … something that could be adversely affected by a contaminant, for example a person, an organism, an ecosystem, property, or controlled waters."* Detailed definitions of the types of receptors are set out in Section 4 of the Statutory Guidance. The Statutory Guidance also refers to "*significant contaminant linkages*", referring to those that give rise to a level of risk sufficient to justify a piece of land being determined as contaminated land.

The local authority has the sole responsibility for determining whether any land appears to be contaminated land within its area.

Since the enactment of the contaminated land legislation, significant progress has been made in many technical areas of assessment and remediation of contaminated land.

2.4 Categorisation of Contaminated Land

The Council will follow the system of categorisation in the Statutory Guidance when considering whether a significant possibility of significant harm (SPOSH) exists at a site. For each receptor, the guidance details four categories.

Categories 1 and 2 would encompass land that is capable of being determined as contaminated land on grounds of significant possibility of significant harm to human health. Categories 3 and 4 would encompass land which is not capable of being determined on such grounds.

Uncertainties arise in allocating land to categories 2 and 3. The government recognises that regulatory authorities may have difficulties in assigning land to categories 2 and 3 and had

[7] Water Act 2003

appointed, through DEFRA, a panel of experts from industry and local authorities to assist local authorities in making decisions with regard to these uncertainties. That panel is now disbanded but detailed decisions made by the panel in cases submitted to it have been made available.

Category 4 Screening Levels (C4SLs), which have been developed to help decide when land is suitable for use and definitely not contaminated land, were first published in 2014 for six contaminants, with more being developed in the last few years. Current Soil Guideline Values (SGVs) and other Generis Assessment Criteria (GACs) are well within Category 4 and present minimal risk. The C4SLs are set at the top of category 4 and although they would still be precautionary, their purpose is to speed up the decision making process for regulators. They are also very likely to act as a suitable remediation target for the development of brownfield land.

When considering whether significant harm is being caused, or there is a significant possibility of such harm being caused, to non-human receptors, Local Authorities pay regard to Tables 1 and 2 of the Statutory Guidance.

2.5 Development of the Strategy

This strategy has been reviewed with particular reference to the 2012 DEFRA guidance and FoDDC has adopted the following approach:

Environmental Health has been identified as the lead service within the Council for the purpose of the Strategy. The designated officer responsible for Contaminated Land (CLO) will work with and consult other services including Development Management, Planning Policy, Sustainability, Building Control, Assets and Legal Services, as appropriate. The CLO also has responsibility for liaising with, and providing information to, the Environment Agency, Natural England, DEFRA, landowners, agents and members of the public.

The Council's latest review and update of the Strategy was undertaken by the CLO in October 2016. This revised strategy has been written in accordance with the 2012 DEFRA guidance and other amended legislation.

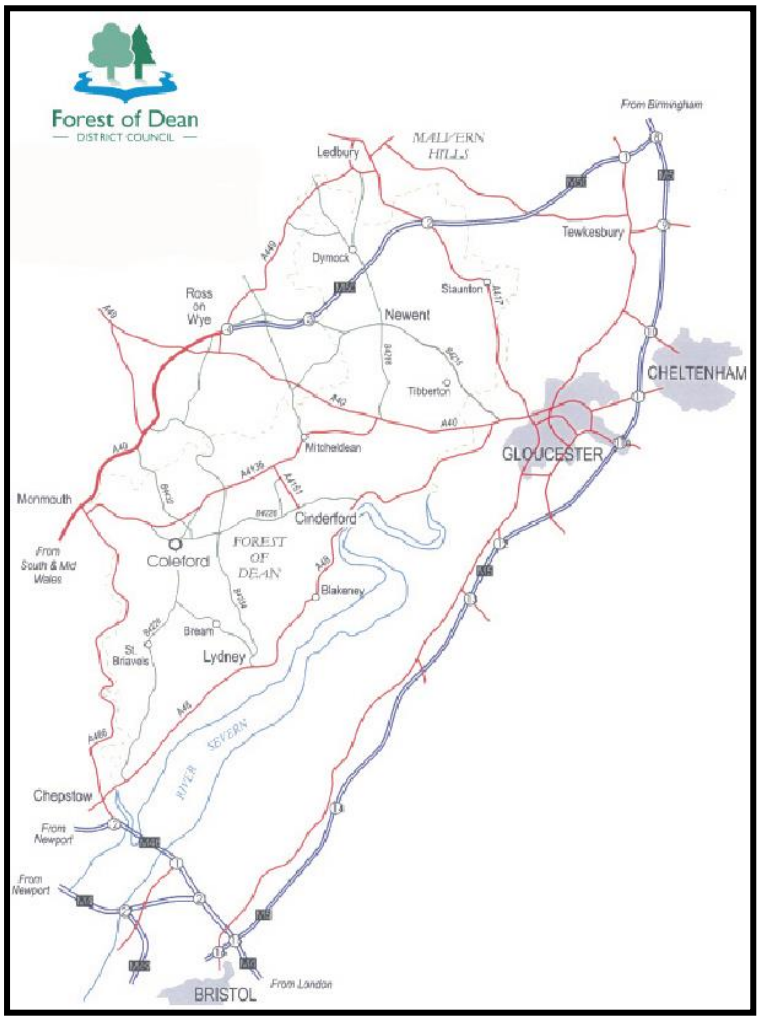
The CLO will ensure that, as far as possible, land contamination is dealt with through the planning system or by voluntary remediation on the part of the current landowner. To date all sites have been dealt with in this way.

The CLO will respond to complaints and enquiries from members of the public regarding potentially contaminated land.

3 Characteristics of the Forest of Dean District

3.1 Geographical Location

The Forest of Dean District lies on the boundary between England and Wales. It occupies the western part of Gloucestershire, bounded by the Malvern Hills in the north, the River Wye to the west and the River Severn to the south and east.



3.2 Brief Description/History

The character of the Forest of Dean District is inexorably linked to the character of its land. The District is a predominantly rural area with four main towns. The statutory Forest of Dean (the officially defined, legally protected core forest) forms the centre of the District lying on the Dean plateau in the south.

The District's inhabitants have historically exploited the rich natural resources of the area, particularly for timber, water, stone, coal, mineral ores and soils. Sites of historic heavy industrial use are scattered throughout the District, as are much smaller scale sites where stone, coal and minerals have been exploited.

3.3 Size of District

The District Council's boundaries encompass a much wider area than just the statutory Forest of Dean. The District covers an area of 526 square kilometres. Over 100 square kilometres of this is woodland managed by Forestry England.

3.4 Population Distribution

In 2021, the Forest of Dean district had a population of 87,000[8]. This district has four main towns and many smaller, rural settlements, where the majority (approximately 58%) of the population live. The four main towns are:

- Newent to the north, which is an attractive, lively market town;
- Coleford, which is located at the southern end of the district and is the administrative centre;
- Cinderford, which sits in the heart of the Forest, has a long industrial history and is currently the focus of a large regeneration programme; and
- Lydney, situated on the banks of the River Severn, which is the largest town in the Forest of Dean and designated as the major growth area for the district.

3.5 Land owned by the District Council

The District Council has limited land holdings in the District, mostly held and managed by the Council's Assets team. In specific instances, the Council may actively pursue the purchase of derelict land and redevelop this to improve the overall quality of an area.

At the time of writing, the Council's Land and Property department owns approximately 132 individual areas of land.

3.6 Current Land Use Characteristics

The main use of land in the District, other than for residential use, is for agriculture and forestry. Current industrial activity is generally restricted to a number of small-medium sized industrial estates with a handful of large manufacturing operations. The large-scale coal and mineral exploration of the past has run down in recent times and superseded in importance by the rock quarries operating in the area.

3.7 Regional Geology

The geological strata of the Forest of Dean lies like a nest of saucers with smaller ones resting on top of larger ones. The saucers are not all circular. At the northeast end, they appear to be pulled outwards, as they are to the west. Furthermore, to the west, the River Wye cuts down through some of the strata, exposing them as cliffs and beds.

Most of the rocks found in the Forest of Dean are carboniferous (or coal-bearing). The layers of coal are overlain by sandstone and mud layers. The sandstones make concentric

[8] Forest of Dean population change, Census 2021 – ONS

ridges in the Forest of Dean, whilst the thick mass of coal seams between them tends to form a valley. The coal measures produce poor soils and this is probably the reason why the Forest of Dean has never been extensively farmed.

Carboniferous limestone occurs beneath the coal measures. These layers contain no coal, but have a top band of sandstone (the Drybrook Sandstone) and are important because of their high iron content.

Old red sandstones lie beneath the limestone, giving rise to the deep red soils of Blakeney and Lydney.

Beneath the sandstone, lie banks of conglomerate – large pebbles in a sandstone matrix – which can be traced all around the edge of the Forest of Dean, except where it is buried by younger coal measures in the southeast and limestones in the southwest.

A simplified order of layers could be presented as:

Supra-pennant sandstones	
Thick belt of coal seams	
Pennant sandstones	
Coleford High Delf coal seam	**Carboniferous**
Trenchard Sandstones and shales	**Rocks**
A break in the succession occurs here	
Drybrook Sandstone	
Iron Limestones	

Thin Sandstones	**Devonian**
Conglomerate	**Rocks**
Old red sandstones, clays and marls	

The regional geology is detailed in the British Geological Survey Solid and Drift 1:50,000 scale maps 'Monmouth, Sheet 233', 'Gloucester, Sheet 234', 'Chepstow, Sheet 250' and 'Tewkesbury, Sheet 216'.

3.8 Hydrogeology

The Environment Agency Groundwater Vulnerability Maps provide information on the water beneath the land in the District. These indicate that there is a principal aquifer of high vulnerability running through the district from Staunton (south), south through Coleford and St Briavels down to the River Wye at Chepstow. The remainder of the District is classified as having secondary aquifers, but with high vulnerability.

Within the District a number of Source Protection Zones (SPZs) exist, as designated by the Environment Agency. These are sections of the aquifer which are considered to form catchments to public water supplies and certain other private abstractions.

There are five areas in the District comprising SPZs, located at Hewelsfield, Milkwall, Ruspidge, Oxenhall and Redmarley.

3.9 Hydrology

The Forest of Dean is sandwiched between two major rivers, the River Wye to the west and the Severn Estuary to the south and east. Cannop Brook and Cinderford Brook feed down into the lower Severn Estuary. The River Leadon runs through the north of the District, fed by Kempley Brook, Ell Brook, Glynch Brook, Colliers Brook and Red Brook.

From sampling carried out by the Environment Agency, the river quality of the Wye is predominantly categorised as 'Unfavourable-declining'. The protection of river quality from contamination is an objective of the inspection strategy.

3.10 Protected Locations

The biodiversity of the District is one of its major natural assets. The District boasts:

- Parts of two National Landscapes, the Wye Valley and the Malvern Hills;
- Two Ramsar sites (Wetlands sites of International Importance, designated under the Ramsar Convention), namely, Walmore Common and the Severn Estuary, which are also classified as Special Protection Areas (SPA) under the European Community Directive on the Conservation of Wild Birds;
- Four Special Areas of Conservation (SACs) under the EC Directive on the Conservation of Natural Habitats and of Wild Fauna and Flora – namely the Wye Valley Woodlands, the Wye Valley and Forest of Dean Bats Sites, the River Wye and the Severn Estuary;
- Three National Nature Reserves (NNRs) declared under National Parks and Access to the Countryside Act 1949 and the Wildlife and Countryside Act 1981 – namely Highbury Wood, The Hudnalls and part of Lady Park Wood; and
- Forty seven Sites of Special Scientific Interest (SSSIs).

In addition to these sites that have received statutory designations, Gloucestershire Wildlife Trust list over 60 nature reserves within the county, many of which are situated in the Forest of Dean. In Gloucestershire, there are also approximately 800 Key Wildlife Sites

(KWS), often referred to as non-statutory sites to distinguish them from SSSIs, many of which are in the District. There are also various Regionally Important Geological sites (RIGs) and a number of historical parks and gardens.

Natural England has previously expressed particular concern regarding the potential for contaminated land investigation and remediation to impact:

- The underground mine sites which are home to internationally important populations of greater and lesser horseshoe bats; and
- Important grassland habitats which have developed through natural colonisation of former industrial sites, particularly long-standing waste ground and spoil heaps.

They also recommend that regard is given to the Biodiversity Action Plan (BAP) habitat, Ancient Woodland, Soil and Agricultural Land Quality, Protected Species and Biodiversity enhancements.

Good levels of consultation have been established with Natural England in dealing with contamination problems in mine workings and it is envisaged that these will continue throughout this inspection process. The issue of rare species flourishing in contaminated areas (e.g. containing high levels of heavy metals) is not unique to this District and, in dealing with such sites, the Council will follow examples of good practice established in other parts of the UK.

3.11 Key Property Types

As well as its rich natural environment, the District has a rich historic environment, with 1,470 Listed Buildings, 93 Ancient Monuments and 27 designated Conservation Areas. The Forest of Dean Archaeological Survey currently lists 10,930 County Sites and Monuments Records (SMR) sites.

The industrial heritage of the area is particularly rich and there are a number of industrial buildings and conservation areas which enjoy statutory protection principally because of their past industrial use. However, investigation of past industrial use forms a key part of the contaminated land inspection strategy. It is recognised that investigation of a site which may include valuable historic assets will have to be tailored on a site-specific basis to minimise disruption and ensure that no new pathways are created by the investigation process itself. These factors will also need to be taken into account when designing any remedial work that may be required.

3.12 Key Water Resource/Protection Issues

The water companies that supply the majority of the District's drinking water are Severn Trent and Welsh Water.

The District Council is required to regularly inspect the quality of approximately 77 private drinking water supplies in its area. Of these, around 74 residences and 2 commercial premises are concentrated in the Aylburton area, supplied by the Aylburton Reservoir as

well as one large commercial entity also situated in Aylburton which is fed from a spring in the grounds of an estate.

Other private water supplies are scattered around the District, mainly in areas where mains water is not readily accessible.

3.13 Known Information on Contamination

During the extensive consultation process period, before the Part 2A regulations came into force, the Council worked closely with the Forestry Commission and the Environment Agency in correlating information on potentially contaminated sites within the statutory Forest. The information gathered provided an important information source.

The Council holds some information on contamination in the District, primarily submitted as part of the planning application process. If development is proposed on an area of land where past site use may have resulted in contamination, the Council will often request a site investigation as part of a planning condition. If development proceeds on these sites, remedial works will often be required to improve the site conditions to an acceptable level. Planning records form a valuable resource during the investigation process.

The Council currently holds over 250 site investigation and remediation reports on file. Although many of these are in hardcopy form only, the Council now makes electronic copies of all reports submitted to it.

The majority of this information is stored on a dedicated land condition database that is linked to the Council's mapping system. Hence, sites that are subject to planning and building control applications are now screened for potential land contamination issues.

In March 2000, the Council purchased a set of ordnance survey maps, in a digital format, along with a database of historic land uses from Landmark Information Group Ltd. These are also installed as part of the Council's mapping system.

Since then, additional appropriate GIS layers have been purchased or downloaded from various sources.

All available information has been considered during development of the Inspection Strategy and has proved significant when compiling the list of sites for prioritisation.

A public register of all regulatory action taken by the Council, in respect of remediation of contaminated land, has been set up. At the time of writing, there are no sites that have been formerly determined to be contaminated land, as defined in Section 2.3.

When the public register has entries, it will be made available to view at the Council's main office in Coleford, or online on the Council's website[9].

[9] Contaminated land - Forest of Dean District Council

3.14 Current and Past Industrial History

The Forest of Dean has a unique industrial history. A casual visitor to the area would probably be unaware that the Forest of Dean had been a centre of large-scale industrial activity in fairly recent history. Towns, such as Cinderford, have grown out of industries that have exploited the land resources. The past one hundred years has seen a decline in the traditional heavy industries of mining and manufacturing, replaced by smaller scale light industry. Tourism is now the basis of a large part of the local economy and many key tourist attractions are based on former industrial activity.

3.14.1 Coal Mining

Coal deposits underlie much of the core forest sandwiched between sandstone and clays. The seams lie close to the surface, outcropping in various locations and often running at shallow angles to the surface. Exploitation of these seams is believed to have occurred in the District on a small scale since Roman times and rose in importance during the 18th century.

In the early days of the industrial revolution, small pits proliferated and shafts were initially only of shallow depth or dug into the sides of hills (drift mining) as the coal seams (or 'delfs' as they were known locally) rose to the surface.

An individual known as 'The Gaveller' was responsible for leasing mining rights on behalf of the Crown. Specific areas of land allocated for mining within the Forest of Dean boundaries are known as 'gales'.

Larger pits became more common throughout the 19th century. In 1904, the Gaveller was authorised to amalgamate gales and forty-four were grouped into seven large areas to be exploited on a large scale. Deeper shafts were sunk and mined for steam coal but as depths increased so did the cost of pumping out groundwater from the mine workings. After the Second World War, the coalfield became less economically viable and the last big pit closed in 1965.

The majority of the coal reserves are now believed to have been worked out. Forestry England has taken on the role of the Gaveller in the area and the Deputy Gaveller deals with day-to-day mining issues. Free mining continues on a small scale with around a dozen small pits still being worked, generally as a part-time activity.

Typical contamination includes heavy metals (arsenic, mercury, lead and others), polycyclic aromatic hydrocarbons (from coal and coal waste) and mine gases (carbon dioxide, methane and hydrogen sulphide). These contaminants can enter groundwater through abandoned mine shafts.

3.14.2 Iron Ore Mining

Mining of iron ore is likely to have begun in the District as early as 500BC as the surface outcrops of ore bearing limestone would have allowed mining by hand. Evidence of iron working by the Romans has been uncovered in and around Lydney dating from around

300AD. In medieval times, the region was regarded as the largest iron-working district in Britain. The pits left on the surface from small-scale iron ore extraction are known as 'scowles'. Many of these scowles are alleged to have been infilled with various materials and this is an important issue when dealing with the Council's investigations.

During the 17th century, blast furnaces using charcoal from Forest of Dean timber operated at locations where water could be used to power the bellows. By the end of the century, eleven of the twenty-four furnaces working in England and Wales were located in the area.

The ore of the District did not easily lend itself to the coke-blast furnaces being introduced by 1800 leading to a downturn in the local iron industry. The problem was solved by the 1920s leading to large coke blast furnaces being built at Parkend and Cinderford. Deeper shafts were sunk and output rose rapidly to a peak in 1879. The industry eventually declined due to the gradual exhaustion of economically viable deposits and the importation of cheap foreign ores.

As well as the scowles on the surface of the land, extensive underground mines exist beneath the centre of the Forest of Dean, which support important populations of horseshoe bats (designated as SSSI's and SACs).

Typical contaminants from historic iron ore mining in the Forest of Dean include elevated iron and manganese, along with trace heavy metals such as chromium, zinc, nickel, copper, lead, cobalt, and cadmium. These contaminants arise from ore extraction, beneficiation waste, and ancient smelting cinder deposits.

3.14.3 Stone and Lime

The earliest use of stone in the District was probably for buildings and roads. The Old Red Sandstone, the Drybrook Sandstone and the lower beds of Pennant Sandstone in the coal measures provide building stone. Road stone is provided by carboniferous limestone occurring near the edge of the Forest of Dean.

Burning limestone with coal in kilns to produce quicklime and slaked lime was an important business before the introduction of cement and artificial fertilisers. As well as their agricultural use, these products were widely used for mortar and plaster. The kilns were located primarily around the limestone outcrop and around 150 sites are believed to have survived, often with several kilns together.

Quarrying remains an important activity in the District with large quarries recently operating in Clearwell, Stowefield and Drybrook. Wilderness Quarry and other smaller operations can also be found in the District.

Historic stone quarrying and lime burning in the Forest of Dean can lead to contamination issues including dust deposition, alkaline soil residues from lime production, altered drainage and groundwater impacts, increased sediment load, and potential imported-waste contamination from later quarry uses.

3.14.4 Other Heavy Industries

TINPLATE WORKS are known to have operated around Redbrook before the end of the 18th century at a site believed to have initially been a copper works. Other tinplate works were located at Hawkwell, Parkend, Lydbrook and Lydney.

Historic tinplate works in the Forest of Dean present contamination risks associated with acid pickling residues, tin and iron oxides, chromate-based passivation chemicals, solvent and coating wastes, and metalworking by-products. Acidic effluents and chromate residues represent the most significant environmental hazards, with additional risks from metal-contaminated sludges, inks, and process chemicals.

FOUNDRIES AND ENGINEERING WORKS supported the rail infrastructure of the local heavy industries. Historic foundries and engineering works in the District typically gave rise to contamination from heavy metals (Pb, Cr, Ni, Cu, Zn), spent foundry sands, hydrocarbons from oils and lubricants, solvent residues from degreasing, slag and furnace waste, and acidic or alkaline process effluents. These contaminants reflect the area's long industrial legacy and are recognised by the Council as contributors to localised land and groundwater risks.

Lydbrook is known to have had a CABLE WORKS factory where cable making occurred prior to the First World War. Likely contamination at the site includes lead and lead-alloy residues from tubing manufacture, metal fines and by-products from wire-drawing, and hydrocarbons from oils and lubricants used in cable production. Long-term industrial activity on the site also increases the potential for general metal-laden dusts and polymer/insulation-related waste.

CHEMICAL FACTORIES, where wood was distilled to form acids and alcohols, were widespread throughout the Forest of Dean. A large site at Cannop Crossroads may pose contamination risks from its historic production of pyroligneous acid, lead acetate, wood-tar, pitch, lamp-black, naphtha, and sulphuric acid. These processes likely resulted in acidic soils, lead contamination, and hydrocarbon-rich tar residues, creating a complex mixed-contaminant legacy typical of 19th-century chemical distillation sites.

CHARCOAL BURNING and TANNING have also occurred throughout the District at various times. Historic charcoal burning and oak-bark tanning in the Forest of Dean present contamination risks from carbon-rich ash, PAHs, acidic organic residues, and spent tannin-laden waste, reflecting the long association of forest timber with ironmaking and tanning industries.

RAILWAYS and TRAM ROADS once networked the District, providing an infrastructure to transport goods produced by the heavy industries. Only the Chepstow to Gloucester line (via Lydney) is currently operational and some of the old railway lines have been converted to cycle paths, particularly in the core Forest of Dean. The Dean Forest Railway is based in Norchard near Lydney, which runs between Parkend and Lydney and is run by volunteers. Their objective was to preserve the last remaining section of the Severn & Wye Railway.

Historic railway sites in the Forest of Dean present contamination risks from hydrocarbons (fuels, lubricants), coal and ash residues, heavy metals, creosote from sleepers, and bitumen or tar-based materials. These risks reflect the area's long use of railways for coal and iron-ore freight, extensive mineral handling, and supporting locomotive infrastructure.

3.15 Known Local Conditions

From assessment of submitted investigation reports, The Forest of Dean can be seen to have elevated heavy metal concentrations in various areas, including arsenic, copper, lead, nickel and zinc.

Arsenic is considered to be naturally occurring in the area and although arsenic is considered to be toxic, naturally occurring arsenic is likely to have limited bioavailability, which is the fraction of the substance that can be absorbed by the body. Therefore, in some areas, arsenic is unlikely to pose significant health concerns.

The Forest of Dean's industrial heritage has resulted in localised areas of contamination. In particular, lead and Polycyclic Aromatic Hydrocarbons (PAHs) may be elevated compared to non-industrial areas, however, they are frequently below the UK Soil Guideline Values (SGVs) or Generic Assessment Criteria (GACs).

3.16 Radioactive Contamination

The Radioactive Contaminated Land (Enabling Powers) (England) Regulations 2005 (SI 2005/3467) and the Radioactive Contaminated Land (modification of Enactments) (England) Regulations 2006 (S.I. 2006/1379)[10] make provision for Part 2A to be extended for the purpose of identification and remediation of radioactively contaminated land where this is causing harm to human health only.

The regime for radioactive sites was amended in 2010, which redefined the term "substance" for radioactive contaminated land, removing the exclusion for radon and its decay products. The change allows the regulator to take action where land is contaminated by radon or its decay products as a result of the after-effects of a radiological emergency or a past activity e.g. radioluminescent paint remnants. Naturally occurring radon gas continues to remain outside the scope of this regime and is instead managed by identifying whether a building is in a radon-affected area and applying appropriate protection. Existing homes with high levels use measures like improved ventilation or radon sumps.

[10] The Radioactive Contaminated Land (Modification of Enactments)(England) Regulations 2006

4 The Forest of Dean District Council Strategy: Overall Aims

This section sets out the Council's future aims and objectives.

4.1 Aims of the Strategy

In accordance with the requirements of a strategic approach set out in Section 2.2, a prioritised list of the Council's aims has been devised to aid decision-making in a cost effective manner.

The Council's priorities in dealing with contaminated land will be to:

- protect human health;
- protect controlled waters;
- protect designated ecosystems;
- prevent damage to property; livestock and crops, etc.;
- prevent further contamination of land;
- encourage voluntary remediation; and
- encourage the re-use of brownfield land.

Wherever possible, the strategy will look to achieve these priorities through voluntary remediation and the redevelopment or regeneration of sites.

4.2 Objectives, Milestones and Inspections

The Council has considered the following factors in determining its approach to complying with its obligations within the Contaminated Land Regime:

- The most likely polluting sites (based on information provided within the DOE Industry Profiles) have already been remediated or redeveloped, or are still in active industrial use. Many of the remaining brownfield sites have been, or are due to be, coming forward for development and are included in the Local Plan.
- A significant number of the original 1606 sites have been determined as very low risk but have been retained on the list as of interest only to existing and future landowners. Examples of this are smithies and small, private landfills.
- The number of sites to be investigated was reduced to 860, however, it is likely that most of the sites on the priority list will NOT be considered as 'Contaminated Land'.
- No land has been identified or reported where the Authority considers that there is a reasonable possibility that a significant contamination linkage exists (as defined in the 2012 DEFRA guidance).

If the Council becomes aware of land which should be inspected, the following procedures will be followed. The inspection strategy will use the contaminant-pathway-receptor model as an indication of significant contaminant linkages.

A map-based land categorisation and prioritisation method using a risk model will be used to enable the identification of minimum information requirements. These requirements are:

- current land use plans;
- locations of current and former landfills and other areas of filled ground;
- locations of groundwater abstraction wells, both public and private;
- current surface water condition based on the 'River basin management plans, updated 2022: current conditions and environmental objectives' (Updated December 2022)[11];
- current processes authorised by the Environment Agency or Local Authority under the Environmental Permitting regulations[12];
- location of statutory and non-statutory sites of ecological importance;
- potential sources of contamination based on the industries listed in the DOE Industry Profiles; and
- the current and historical locations of these industries.

The detailed procedures contained in the Statutory Guidance will be followed in all respects.

4.3 Part 2A inspections

Detailed inspection by intrusive site investigation works have occurred on two sites to date.

- Furnace Close, Cinderford (Council inspection)
- Watkins Engineering Site, Sling (voluntary remediation)

Furnace Close

Furnace Close was investigated due to its position in the FoDDC's prioritisation list. The site was formerly part of the Forest Vale Iron Works with associated tram lines. The site was developed for residential housing in the 1970's.

Soil sampling to the north and east had previously indicated the presence of heavy metals and Polyaromatic Hydrocarbons.

A comprehensive investigation was undertaken in 2010-11 to assess the condition of the soil and groundwater at the site.

Human health and groundwater risk assessments were undertaken and it was considered that no significant risks were posed to human health. Furthermore, the assessment results indicate that the site does not pose a pollution risk to controlled waters.

Watkins Engineering Site

[11] River basin management plans, updated 2022: current condition and environmental objectives - GOV.UK
[12] The Environmental Permitting (England and Wales) Regulations 2016

Historically, the site contained an old disused mine shaft which appears to have been used for the tipping of liquid wastes. The rest of the site contained buildings, warehouses, offices and sheds which were used to clean and renovate old boilers and manufacture tanks.

The site was then used for the storage of portable buildings and old tanks as well as the cleaning and renovation of old boilers. A small unit on site was used for a rally car workshop. A larger building was used by a drinks wholesaler. The other buildings on site comprised engineering workshops and stores. Visual evidence of surface spills of hydrocarbons was present at the site.

A site investigation and risk assessment was undertaken in 2004 which indicated localised hotspots of gross contamination with widespread contamination of hydrocarbons and heavy metals. Localised and limited occurrences of asbestos in soils were also identified in near surface soils. Carbon dioxide was also present within soils at the site.

Voluntary remedial works were completed in 2008, which included the excavation and removal of: former underground storage tanks, bitumen barrels in the north eastern area of the site, contaminated soils in the north east and east of the site, areas of surface heavy grade oil contamination and earth stockpiles in several locations at the site. Housekeeping in general was also improved at the site to prevent further contamination in the future.

The Validation Report was completed in 2015, which showed that the majority of the validation soil samples were below the remedial target concentrations set out in the Remedial Works Method Statement. It was considered that the site no longer posed significant risks of harm to human health or pollution of controlled waters.

4.4 Overlapping Regulatory Functions

Part 2A should only be used to secure remediation of contaminated land where no appropriate alternative solution exists. There are several regulatory functions that provide local authorities with legislative powers to deal with land contamination including development control, building control and Environmental Damage Regulations. Action under Part 2A may be precluded where action under these regimes results in a desirable outcome, however, these should be assessed on a case by case basis.

4.4.1 Inspection and remediation via the Planning Process

Potential contamination of any land subject to redevelopment is a material planning consideration. This means that the planning authority must consider the potential implications of contamination both when developing its local plan and when considering individual planning applications.

The National Planning Policy Framework (NPPF, 2025) includes the following:

125. Planning policies and decisions should:

(c)…give substantial weight to the value of using suitable brownfield land within settlements for homes and other identified needs, proposals of which should be approved unless substantial harm

would be caused, and support appropriate opportunities to remediate despoiled, degraded, derelict, contaminated and unstable land.

126. …should take a proactive role in identifying and helping to bring forward land that may be suitable for meeting development needs, including suitable sites on brownfield registers…

147 (a). …makes as much use as possible of suitable brownfield sites and underutilised land…

187. ...contribute to and enhance the natural and local environment by:

(e) preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution or land instability. Development should, wherever possible, help to improve local environmental conditions such as air and water quality, taking into account relevant information such as river basin management plans: and

(f) …by remediating and mitigating despoiled, degraded, derelict, contaminated and unstable land, where appropriate.

196. Planning policies and decisions should ensure that:

(a) 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);

(b) 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

c) adequate site investigation information, prepared by a competent person, is available to inform these assessments.

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

It should be noted that a consultation for a major reset of the framework closed on 10 March 2026, which seeks to significantly restructure the NPPF upon adoption, which is expected in the summer of 2026.

It is important therefore that the CLO maintains close liaison with the planning department to ensure that, where land affected by contamination is to be developed, site investigation and, where necessary, remediation is carried out to the appropriate standard. The CLO would provide technical assistance to the planning department in assessing planning applications and site investigation reports presented by developers.

The Council seeks to use the planning process to bring previously developed land into use as part of its sustainable development objectives. At the time of writing, a number of sites which had the potential to be contaminated land under the Part 2A legislation have been or

are being dealt with by the action of developers through the planning process, including the following:

- Commercial development at a business park and former petrol filling station in Longhope;
- Residential development of former depot sites in Cinderford and Woolaston;
- Numerous small infill developments on other former industrial sites in Drybrook, Cinderford, Berry Hill, Steam Mills and Clearwell;
- Large residential development in Lydney, Coleford and Cinderford;
- Commercial development of a former foundry in Lydney;
- Development of several former railway land sites for residential and commercial use;
- Residential development of sites in former mining and quarrying areas in Milkwall, Steam Mills and Clements End;
- Numerous barn conversions; and
- Development of several dwellings in former garden areas.

Over 100 site investigation and remediation reports have been received and reviewed by the Council in connection with planning and building control applications within the last five years.

4.4.2 Building Control

'The Building Regulations 2010 - The Merged Approved Documents - October 2024 compilation of individual approved documents' introduced the requirement for reasonable precautions to be taken to avoid danger to health and safety caused by contaminants on or in the ground covered, or to be covered by the building and any land associated with the building.

Approved Document C – Site preparation and resistance to contaminates and moisture (2004 edition incorporating 2010 and 2013 amendments), provides advice on site preparation and resistance to contaminants in order to mitigate the effects of contaminants, whilst recognising the connection between building control, planning and environmental protection. The responsibility for securing a safe development rests with the developer and/or landowner, who should be made aware that actions or omissions on their part could lead to liability being incurred under Part 2A.

The building control function has an increasingly important role in securing a safe development with the rising number of developments being constructed using permitted development rights that do not require planning permission. Where contamination potential exists, restrictions on building approvals should be used to ensure developers undertake appropriate site assessments and address any unacceptable risk to human health and safety as part of the development.

4.4.3 Water Resources Act 1991

This act gives the Environment Agency powers to prevent or remedy pollution of controlled waters using Works Notices and it is therefore possible for the two regulatory regimes to overlap. Consultation will be undertaken between the Environment Agency and the Local Authority to establish the best course of action.

4.4.4 Environmental Damage Regulations

The Environmental Damage (Prevention and Remediation) (England) Regulations 2015 ('EDR Regulations') (S.I. 2015/810) implement EU Directive 2004/35/EC and provide a mechanism to create incentives to minimise the number and severity of environmental damage. The regulations deal with environmental damage to land, water or ecosystems where this occurs to businesses after March 2009. They rely on the polluter pays principle requiring operators of commercial activity to have in place measures to prevent environmental damage and take remedial action if it does occur.

The term 'environmental damage' has a specific meaning in the regulations and is damage that adversely affects land, surface or groundwater, marine waters, protected species or natural habitats or a site of special scientific interest. The Local Authority has enforcement responsibilities in relation to damage to land where this results in a significant risk of adverse effects on human health. Enforcement responsibility for damage to water is held by the Environment Agency, whilst damage to natural habitats or protected species or sites of special scientific interest is enforced by Natural England.

4.4.5 Environmental Permitting

The Environmental Permitting Regulations (England and Wales) 2016 cover industrial processes, waste operations, water discharges, groundwater activities and radioactive substances and give the enforcing authority the ability to apply conditions to permits to control activities and discharges to land, air and water.

The aim of the legislation is to protect human health and the environment by combining multiple permitting systems into one framework by ensuring compliance with legal standards and best practices. Operators holding an environmental permit are financially liable for the prevention and remediation of environmental damage under the EPR Regulations.

4.4.6 Other regulatory functions

The examples of overlapping regulatory functions provided above may not be exhaustive. Furthermore, environmental legislation and regulatory responsibilities do not remain static. FoDDC will ensure the impact of any new legislation implemented following publication of this strategy is taken into consideration when implementing the contaminated land regime.

4.5 Other contaminated land activities

Regular external liaison takes place with a number of other bodies including the Environment Agency (EA), UK Health Security Agency (UKHSA) and the Health and Safety Executive (HSE).

A close working relationship is maintained with other Council departments, including other environmental health teams (Operations, Food, Health and Safety), Development Management, Building Control, Assets, Legal Services and ICT/GIS.

A large number of land quality enquiries have been received since the previous Strategy was produced, mainly by land search consultants and conveyancing solicitors. Many of these required a detailed written response. Furthermore, enquiries from the general public and local businesses were also regularly received, requesting advice and information. Work was undertaken in response to several urgent incident reports including the following examples:

- Several sewage spills in the District;
- Inspection of sites for asbestos contamination reported by members of the public;
- Investigation of potentially contaminated surface water features in Steam Mills and Milkwall; and
- Inspection of an oil spill from former fuel depot in Brockweir.

Guidance relating to general contaminated land matters has also been produced as follows:

- Land Contamination - Developers' Guide for planning application, February 2025[13]

[13] developer-s-guide-fod-final-feb-2025.pdf

5 Inspection Process

The inspection process thus far carried out by the Council has identified sites for urgent action. These sites have been researched, and where appropriate inspected, with funding through the Defra Capital Grants allocation. A number of potentially contaminated sites have been and are being inspected and remediated through the planning process. In many cases, this has been done by site developers where the use of the site has been changed to introduce a more sensitive receptor, as in the case of a change from industrial to residential with gardens, for example.

The inspection process must reflect the requirements of primary legislation and relevant statutory guidance and be capable of identifying contaminated land.

5.1 Inspection Stages

FoDDC has adopted a strategic approach to inspection as required by Government. This is broken down into five process steps:

Stage 1 – Strategic Inspection

The inspection strategy has two distinct stages. Firstly, a survey of the district during which information regarding potential contaminants, receptors and pathways is gathered. This is followed by prioritisation to identify firstly sites where a complete contaminant linkage exists and secondly to rank these sites to identify sites with the most pressing and serious risk so that these can be investigated first.

Stage 1a – District Survey

The purpose of this stage of the strategy is to gather information on potentially contaminative land uses, receptors and pathways from a variety of sources, including historical maps and records, data sets published from authoritative sources including the Environment Agency, British Geological Survey and information held on public record.

Whilst there is an ongoing need to maintain and update information for the district, this stage of the inspection process is effectively complete, allowing progression to Stage 1b.

Stage 1b – Prioritisation of sites for detailed inspection

There is a statutory requirement for a risk based approach in prioritising sites with the greatest potential to cause significant harm, although a methodology to achieve this has not been defined by Government. FoDDC have produced bespoke prioritisation methodology in line with systems used by other authorities but which makes use of existing corporate systems and data and is customisable to reflect local circumstances. This is shown in Appendix B.

Stage 2 – Detailed Inspection

Before proceeding to detailed inspection, a validation process must be completed to ensure the factors influencing the prioritisation of a site are accurate. Once this has been established and a potentially significant contaminant linkage has been identified, a detailed inspection is required to quantify the level of risk. A desk based study may be sufficient for this purpose or it may be necessary to undertake an intrusive investigation to assess ground conditions and associated contaminant concentrations. The output from this inspection stage should provide sufficient information to categorise the site as required by statutory guidance.

Stage 3 – Determination

The local authority is responsible for determining whether land is contaminated land and has a duty to do so where:

- Significant harm is being caused to a human or relevant non-human receptor;
- There is a significant possibility of significant harm being caused to a human or relevant non-human receptor;
- Significant pollution of controlled waters is being caused; or
- There is a significant possibility of significant pollution of controlled waters being caused.

In fulfilling this role, FoDDC will act in accordance with relevant statutory guidance, seeking expert advice, if required.

For sites that are determined as contaminated land, following a thorough risk assessment, the Council will produce a risk summary, in a simple and easy to understand format, and this will form part of the record.

Stage 4 – Remediation

When land is determined as contaminated land, the local authority must secure the remediation of that land. The Statutory Guidance will be followed to ensure the significant pollutant linkages identified by the inspection process are removed or disrupted to such a level that they no longer present a significant risk.

Further information including a detailed outline of the processes to be completed in each stage is provided in the following sections.

5.2 Inspection Programme

The legislation and statutory guidance is not prescriptive in terms of how quickly the work on contaminated land needs to be completed, however, each local authority is required to set out in its strategy the timescales for the inspection process.

Table 5.1 sets out the anticipated timetable for completion of each stage of the inspection process.

Table 5.1 Timetable for inspection process

Stage	Task summary	Target Completion Date
1	District survey	Completed
	Prioritisation	Completed
2	Detailed Inspection	Unknown, as urgent inspections arise
3	Determination	As required following detailed inspection
4	Remediation	Within 12 months of determination

5.3 Reactive investigation

If the Council is made aware of any site not already listed on the database of potentially contaminated land that has the potential to be contaminated land under the Part 2A definition, then a process of investigation will be carried out in the same way as those sites already on the Council's database of potentially contaminated land. The site would be subjected to the same process of prioritisation as sites already listed. If the risk based assessment of the site, based on available information, indicates urgent action should be taken, a detailed inspection would follow.

If the status of a known site should change, as in the case of the introduction of a new receptor for whatever reasons, then the site would be reassessed in terms of risk to those receptors. If it seems to the Council that the risks now posed by the site are such that a detailed inspection should be carried out by the Council then this will be done with due regard to current best practice and published guidance.

Once a detailed inspection of the land in question has been completed and sufficient information has been gathered to indicate that regulatory action is necessary, land likely to be in Category 1: Human Health or Water in the Statutory Guidance, a risk summary will be produced as required under Section 3 of the Statutory Guidance. This summary will be communicated to all identified stake holders.

5.4 Information requests and the Public Register.

The Council receives a steady flow of requests for information on contaminated land from consultants undertaking environmental assessments to property vendors and purchasers and their solicitors. It is important, therefore, to maintain the database of sites so that responses can be made to these queries on the basis of up-to-date information.

The Council is required under Section 78R of Part 2A to maintain a register containing prescribed particulars of actions taken by the Council in relation to the determination of contaminated land. The register should be available, at all reasonable times, for inspection by the public, free of charge. At the present time, there are no entries on the Council's public register.

5.5 Strategy Review

This strategy will be reviewed in 5 years unless changes in legislation, statutory guidance or other factors dictate that the strategy should be reviewed at an earlier date.

6 Determining Liability

Land may be declared contaminated upon the identification of one significant contaminant linkage. Full liability therefore, cannot be decided until all significant contaminant linkages have been identified. Only then can the procedure relating to the apportionment of liability commence. The apportionment of liability has five distinct stages as follows:

- Identifying potential appropriate persons and liability groups
- Characterising remediation actions
- Attributing responsibility to liability groups
- Excluding members of liability groups
- Apportioning liability between members of liability group

These procedures are complex and cumbersome and will be undertaken in accordance with the statutory guidance.

The Council is responsible for identifying relevant parties who are obligated to undertake remedial works.

All appropriate persons for any one linkage are a 'liability group'. These may be Class A or Class B persons.

Appropriate persons – Class A

These are generally the polluters who caused the contamination in the first place but also include persons who 'knowingly permitted' the contamination. This includes developers who leave contamination on a site which subsequently results in the land being determined as contaminated.

Appropriate persons – Class B

Where no Class A person has been identified, liability reverts to the owner or occupier of the land.

The Council will make all reasonable enquiries to identify the Class A persons before liability reverts to the current owner or occupier.

The matter of appropriate persons must be considered for each significant pollutant linkage. Therefore, where a site has had a series of contaminative uses over the years, each significant contaminant linkage will be identified separately and liability considered for each.

6.1 Orphan Sites and Orphan Linkages

A situation may arise where there is at least one significant contaminant linkage at a site and there is no Class A or Class B person found. This site would be considered as an 'orphan site' and the enforcing authority would bear responsibility for that site in carrying out remediation and bearing the cost of remediation. Similarly, if there are a number of significant contaminant linkages at a site and if there is no Class A or Class B appropriate

person for at least one of the linkages, such a linkage would be considered an orphan linkage and the enforcing authority would bear the responsibility of remediating that linkage.

6.2 Apportionment of costs

Usually the members of a liability group will have the total costs falling on the group as a whole apportioned between them. It may also be necessary to apportion the costs between liability groups. The Council will have regard to the Statutory Guidance in the application of the exclusion and apportionment tests.

6.3 Special Sites

The Council and the Environment Agency can both identify potential 'Special Sites' but a site cannot be designated a Special Site until the Council determines it as 'Contaminated Land'.

If the Council requests an inspection of a potential Special Site, the Environment Agency will prioritise this site alongside its other potential Special Site inspection requests.

Once the Council is satisfied that a site has been determined as Contaminated Land and designated a Special Site, the Council will notify the Environment Agency of this fact in writing. If the Agency disagrees on the designation, it must notify the Council of that fact in writing within 21 days and any disputes about regulatory roles are handled by the Secretary of State. If the Agency agrees or fails to inform the Council with 21 days, then the land will be designated a Special Site. The responsibility of securing remediation then passes to the Environment Agency although the Council must complete the formal notification process. This will involve the Council also notifying the owner, occupier and appropriate person with respect to that site or land.

7 Remediation

Once the land has been identified as contaminated land and the relevant persons have been notified, a process of consultation begins to determine what remediation is required on that land.

The aim of remediation is to remove or take measures to remedy the identified significant contaminant linkages, or permanently to disrupt them to ensure they are no longer significant and that risks are reduced to an acceptable level, where the land would no longer qualify as contaminated land. Where this is not achievable, consideration should be given to remediation to a lesser standard to minimise risks as far as possible.

7.1 Definition of remediation

Remediation is defined in s78A of the Environmental Protection Act 1990 as:

a) The doing of anything for the purpose of assessing the condition of –
    (i) The contaminated land in question;
    (ii) Any controlled waters affected by that land; or
    (iii) Any land adjoining or adjacent to that land;
b) The doing of any works, the carrying out of any operations or the taking of any steps in relation to any such land or waters for the purpose -
    (i) Of preventing, or minimising, or remedying or mitigating the effects of, any significant harm, or any pollution of controlled waters, by reason of which the contaminated land is such land; or
    (ii) Of restoring the land or waters to their former state; or
c) The making of subsequent inspections from time to time for the purpose of keeping under review the condition of the land or waters.

7.2 Remediation notices

Following determination of contaminated land in its area, FoDDC has a duty to serve a remediation notice on the appropriate person(s) following a three month consultation period unless there are no viable remedial options, voluntary remediation is being or will be undertaken without the need for a notice, or there is a need for urgent action where there is imminent risk of serious harm.

In considering whether the requirement to undertake the remediation is reasonable, FoDDC will consider:

a) The practicability, effectiveness and durability of remediation including whether it is feasible for the appropriate person to complete the remediation specified within the timescale given, and whether this will remain a robust and effective solution for a sufficient length of time;
b) The health and environmental impacts of the chosen remedial options including whether there are any direct or indirect health effects to workers or people affected

by the works, or potential for damage to the countryside, protected building and other sites of importance caused by the work;

c) The financial cost which is likely to be involved at all stages of the process including preparation, remediation, monitoring, maintenance and value of the land; and
d) The benefits of remediation with regard to the seriousness of the harm or pollution of controlled waters in question including increased land value following remediation and the likelihood of an occurrence or recurrence of pollution.

A remediation notice must specify what remediation is required and the timescales in which this must be done. When considering what remedial action is required, FoDDC will consult other regulatory bodies and have due regard for relevant technical guidance provided by regulatory, professional or technical organisations or act on the advice of a suitably qualified practitioner employed for that purpose.

A remediation declaration must be prepared in situations where FoDDC itself has caused or knowingly permitted the land to become contaminated land and is responsible for its remediation.

In accordance with the requirements of s78R of the Environmental Protection Act 1990, a copy of any remediation notices or remediation declarations prepared will be placed on the public register.

In the event that new information comes to light that alters the extent of remediation required or an alternative remediation scheme is proposed by the responsible person, it is possible to revise or revoke all or part of the notice.

7.3 Voluntary Remediation

FoDDC actively encourages voluntary remediation and will work with the appropriate person(s) during the consultation period to secure the informal remediation of contaminated land without the need for a formal notice.

Where voluntary remediation is considered appropriate, a remediation statement will be used in place of a notice to record the nature and extent of remediation required, the person responsible for the remediation and the delivery timescales. In accordance with the requirements of s78R of the Environmental Protection Act 1990, a copy of the remediation statement will be placed on a public register.

7.4 Financial Considerations

The cost of remediation of contaminated land can be considerable. It must be reasonable and proportionate to the seriousness of the harm or pollution to controlled waters. When considering the reasonableness of costs, FoDDC will take into consideration:

a) Preparation costs including feasibility studies, remedial design and management
b) Remediation costs including making good afterwards
c) Land management costs including on-going monitoring and maintenance

d) Relevant disruption costs
e) Financial value and utility of the land as a result of remediation and who this affects.

The identity or financial standing of the appropriate person are not relevant when considering the remediation actions, although they may be relevant in deciding whether the cost of remediation can be imposed on such persons.

In making any cost recovery decision, the Council will have regard to the following principles:

- The authority should aim for an overall result which is as fair and equitable as possible to all who may have to meet the costs of remediation, including national and local taxpayers; and
- The 'polluter pays' principle, by virtue of which the costs of remediating pollution are to be borne by the polluter. The local authority should therefore consider the degree and nature of responsibility of the Appropriate Person for creation, or continued existence, of the circumstances, which lead to the land in question being identified as contaminated land.

In general, this will mean that the Council will seek to recover, in full, its reasonable costs unless it waives or reduces the recovery of costs to:

- Avoid any hardship which the recovery may cause to the appropriate person; or
- To reflect one or more of the specific considerations set out in the Statutory Guidance.

7.5 Appeal Procedure

Remediation notices served by FoDDC will contain information on the right to appeal. The appeal period is twenty-one days from service of the notice and any appeals must be made to the Secretary of State who could quash the notice or confirm it with or without modification.

7.6 Offences

Any person failing to comply with the requirements of a remediation notice is guilty of an offence and may be fined following successful prosecution.

7.7 Remediation by the Local Authority

If the Council considers that serving a remediation notice would not result in remediation happening soon enough, it may decide to carry out the remediation itself, where:

- urgent action is required
- no appropriate person can be found ("orphan sites")
- where persons are excluded on the grounds of hardship
- where persons responsible are in default of a remediation notice

- where an arrangement has been made whereby the council carries out the remediation on behalf of appropriate persons.

Urgent remediation will occur where the Council is satisfied that there is imminent danger of serious harm or serious pollution of controlled waters or serious harm attributable to radioactivity being caused as a result a significant pollutant linkage that has been identified. In all appropriate cases the Council will seek to recover costs of remediation works it has completed.

8 Liaison and Communication

8.1 Internal communication

The Senior Officer (Business Leader) with responsibility for Environmental and Regulatory Services (Environmental Protection) has delegated powers to determine a site as contaminated land, as stated in Section 9.10 of the Constitution, under the technical guidance of the CLO. Relevant departments within the Council will be consulted for their views and a brief will be produced to inform senior management and Legal Services. Elected members, in whose area the site is located, will also be informed of the planned works.

Members of the Cabinet will also be informed at the earliest opportunity of any plans to determine Council owned land where the Council might be considered the Appropriate Person and liable for remediation costs.

8.2 Communication with other statutory bodies

As a local authority, the Council is the primary regulator for dealing with land which is affected by contamination. The Environment Agency, as the national environmental regulatory body, compliments this role and thus it is important for both organisations to exchange and rely on information from each other. The Council will provide information to the Environment Agency as necessary to fulfil its duties under the contaminated land regime.

The Council will also contact the Environment Agency on designation of a site as contaminated land and whenever a remediation notice, statement or declaration is issued or agreed.

The Environment Agency is also required to report annually to the Secretary of State on the state of contaminated land in England and Wales. This includes:

- A summary of local authority inspection strategies, including progress and effectiveness;
- The amount of identified contaminated land and the nature of contamination; and
- Measures taken to remediate contaminated land.

The Council will provide information, upon request, to the Environment Agency to allow it to fulfil its reporting obligations to the Secretary of State.

When considering determination of a potentially contaminated site, the Council will engage in consultation with any other organisations that might have an interest in the site or that might be able to provide help and assistance. Such organisations include other affected Local Authorities, the UKHSA, the Foods Standards Agency (FSA), Gloucestershire County Council, the HSE and DEFRA.

8.3 Cross Boundary Issues

Environmental Protection Officers work closely with their counterparts in all neighbouring local authorities. In practice, should such circumstances arise, the approach will be joint,

with enforcements action being taken by the most appropriate authority depending on the circumstances. In most cases, this is likely to be the authority where the pollution 'source' is located.

8.4 Communication with Stakeholders

The Council aims to proceed with the process of investigating sites in a transparent and open manner. It will act to keep interested parties informed and updated regarding progress with the site inspection, as required by the statutory guidance.

The Council is required to follow the procedures detailed in the statutory guidance when considering determination of a site as contaminated land. When requiring remediation of a contaminated site, the regulations provide an incentive for voluntary action. Voluntary remediation is also often more likely to achieve a higher level of improvement in comparison to the minimum that can be statutorily required.

The Council will, therefore, seek voluntary action wherever possible, only considering subsequent enforcement action if voluntary action is refused or considered unlikely to satisfactorily remediate the site.

8.5 Risk communication

Reference should be made to the publication *Communicating Understanding of Contaminated Land Risks - SNIFFER (May 2010)*. The Council will be involved in the assessment of risks associated with contaminated land and ensuring that unacceptable risks from contamination are appropriately managed.

Hence, there is a need to carefully assess how to anticipate and respond to the concerns, anxieties and expectations that may arise in response to land contamination. It is not possible or practical to eliminate each and every risk, i.e. it is not practical or financially viable to remove all risks from contamination, and in some cases it is not technically possible to do so. However, public perception and concerns are very real and should be addressed seriously and with sensitivity as part of the risk management programme.

Managing the potential conflict around the risk issues requires attention to the content of risk information, and to the appropriate procedures at relevant stages in the decision-making process. The procedures should address the following:

- The need for two-way communication;
- Transparency to create trust in the regulatory role; and
- Openness to enhance the legitimacy of the overall process to the stakeholder.

Risk communication should include the overall rationale and methods behind the assessment and management process. Risk communication for a site should be flexible in terms of procedures and reflect the content and history around a particular contaminated site.

8.6 Consultation on the Inspection Strategy

Consultation on the original 'Strategy for Contaminated Land Inspection (2001)' occurred with Council members, the Parish Councils, other Council departments, relevant organisations and the public. The Contaminated Land Strategy - Update and Review reports in 2010 and 2016 were revised to include consultation with the CLOs from the county of Gloucestershire and other external consultees.

This updated strategy has also been circulated for consultation and the revised list of consultees is listed in Appendix A.

Glossary

Appropriate Person	Defined in Section 78A(9) as 'Any person who is an appropriate person, determined in accordance with Section 78F, to bear responsibility for anything which is to be done by way of remediation in any particular case'.
Brownfield Register	A statutory register maintained by local planning authorities that identifies previously developed sites considered suitable for residential development. It is typically divided into two parts: ▪ **Part 1**: All brownfield sites deemed appropriate for housing ▪ **Part 2**: Sites granted "permission in principle" for residential development
Brownfield Site/Land	A site that has been generally abandoned or underused where redevelopment is complicated by actual or perceived environmental contamination. Only a small proportion of brownfield sites will meet the definition of 'Contaminated Land'.
Contaminated Land	Any land which appears to the Local Authority in whose area it is situated to be in such a condition, by reasons of substances in, on or under the land that: (a) significant harm is being caused or there is a significant possibility of significant harm being caused; or (b) pollution of controlled waters is being or is likely to be caused.
Controlled Waters	These include (a) inland waters (rivers, streams, underground streams, canals, lakes, reservoirs); (b) groundwaters (any water contained in underground strata, wells or boreholes); (c) territorial waters (the sea within three miles of a baseline); and (d) coastal waters (the sea within the baseline up to the line of highest tide, and tidal waters up to the freshwater limit).
GIS	Geographic Information Systems. A system of hardware and software used for storage, retrieval, mapping, and analysis of geographic data.
Part 2A	Part 2A of the Environmental Protection Act 1990.
Public Register	The register is kept by the enforcing Authority relating to contaminated land and details contaminated land that has been remediated as well as any enforcement action undertaken by the Authority.
Radioactive Contaminated Land	Elevated concentrations of radio-nuclides resulting in elevated levels of radiation above a certain level.

Remediation Notice	Defined by Section 78E(1) of the EPA 1990 as a notice specifying what an appropriate person is to do by way of remediation and the periods within which he is required to do each of the things specified.
Risk Assessment	The study of (a) the probability, or frequency, of a hazard occurring; and (b) the magnitude of the consequences.
Site investigation	The process of undertaking investigation on land to determine the condition of that land. The staged approach usually includes a desk study including a review of historical data and a site reconnaissance, and an intrusive investigation which includes trial pitting or drilling works, soil sampling, risk assessment and remediation works.
SGV	Soil Guideline Values (SGVs) are published by DEFRA and the EA and represent a minimal level of risk and depend on the current use of the land. They do not represent significant possibility of significant harm).
Special Site	Contaminated Land which meets one of the criteria laid out in the guidance for regulation by the EA.

Appendix A

List of Consultees

The following consultees were consulted on the draft of this Strategy.

Cheltenham Borough Council
Environmental Protection Team
Municipal Offices
Promenade
Cheltenham
Glos
GL50 1PP

Tel: 01242 264226
Email: ehbusinesssupport@cheltenham.gov.uk
Web: www.cheltenham.gov.uk

Cotswold District Council
Technical Pollution Services
Environmental and Regulatory Services
Trinity House
Cirencester
Glos
GL7 1PX

Tel: 01285 623000
Email: ERS.Pollution@cotswold.gov.uk
Web: www.cotswold.gov.uk

Environment Agency
Environment Agency
Riversmeet House
Newtown Industrial Estate
Northway Lane
Tewkesbury
Glos
GL20 8JG

Tel: 01684 864310
Email: enquiries@environment-agency.gov.uk
Web: www.gov.uk

Food Standards Agency
Food Standards Agency
Foss House
1-2 Peasholme Green
York
YO1 7PR

Tel: 0330 332 7149

Gloucester City Council
Eastgate Management Suite
Eastgate Street
Gloucester
GL1 1PA

Tel: 01562 738023
Email: heretohelp@gloucester.gov.uk
Web: www.gloucester.gov.uk

Gloucestershire Trading Standards
Shire Hall
Westgate Street
Gloucester
GL1 1TG

Tel: 01452 4260605
Email: tradingstandards@gloucestershire.gov.uk
Web: www.gloucestershire.gov.uk

UKHSA
South West HPT
UK Health Security Agency
Bristol
BS1 6EH

Tel: 0300 303 8162
Email: swhpt@ukhsa.gov.uk
Web: www.gov.uk

Herefordshire Council
Nick James
Herefordshire Council
Plough Lane
Hereford
HR4 0LE

Tel: 01432 261761
Email: njames@herefordshire.gov.uk
Web: www.herefordshire.gov.uk

Monmouthshire County Council
Paul White
Monmouthshire County Council
PO Box 106
Caldicot
Monmouthshire
NP26 9AD

Tel: 01873 735449
Email: paulwhite@monmouthshire.gov.uk
Web: www.monmouthsire.gov.uk

National House Builders Council (NHBC)
NHBC
NHBC House
Davy Avenue
Knowlhill
Milton Keynes
MK5 8FP

Tel: 0844 633 1000
Web: www.nhbc.co.uk

Natural England
Eastbrook
Shaftesbury Road
Cambridge
CB2 8DR

Tel: 0300 060 3900
Email: enquiries@naturalengland.org.uk
Web: www.gov.uk

South Gloucestershire Council
Environmental Protection
PO Box 1954
Bristol
BS37 0DD

Tel: 01454 868001
Email: environmental.protection@southglos.gov.uk
Web: www.southglos.gov.uk

Stroud District Council
Katie Larner
Ebley Mill
Westward Road
Stroud
Glos
GL5 4UB

Tel: 01453 754469
Email: katie.larner@stroud.gov.uk
Web: www.stroud.gov.uk

Tewkesbury Borough Council
Environmental Health
Tewkesbury Borough Council
Public Services Centre
Gloucester Road
Tewkesbury
Glos
GL20 5TT

Tel: 01684 295010
Email: ehenquiries@tewkesbury.gov.uk
Web: www.tewkesbury.gov.uk/environment

Appendix B

Prioritisation Methodology

Preliminary prioritisation was undertaken to assess sites for future inspection and was achieved through the use of a scoring system. Scores were given for highly contaminative land uses (Hazard scores) and for highly sensitive receptors (Vulnerability scores).

If a site has been under multiple uses, it is assigned to the highest risk class for which it qualifies. A generic Hazard score according to the risk class of the contaminative use (i.e. High, Medium or Low) is appointed.

The strategy will then be used to assess various receptors including human health, groundwater vulnerability and ecological systems to provide a Vulnerability score which reflects the sensitivity of the receptor to allow for the prioritisation of sites to be established.

An overall combined risk is then calculated by multiplying the Hazard score with the Vulnerability score using the information available to the Council at the time of writing.

The highest overall scores represent the highest potential risk to receptors and at this initial stage, no consideration is given to land ownership or liability issues or the number of receptors potentially affected. Council owned land will be included within this process and will not be treated differently to any other land.

If further information becomes available pertaining to the sites highlighted in the priority list, the scoring will be adjusted to reflect the changes in circumstances.

Table B.1 below sets out the complete criteria, with the Hazard and Vulnerability Scores given to establish prioritisation for investigation.

Table B.1 Site Categorisation - Criteria and Scoring

Hazard score (HS)		**Risk Ranking Score**
<u>High Risk Classes</u>		20
HS1	Airports	
HS2	Asbestos manufacturing works	
HS3	Chemical Works	
HS4	Coal mining	
HS5	Unknown filled ground (pit, reservoir, canal, well)	
HS6	Gas works, coke works and other coal carbonisation plants	
HS7	Metal works and processing	
HS8	Military land	
HS9	Oil refineries and bulk oil storage	
HS10	Paper mills and works	
HS11	Power stations	
HS12	Road vehicle refuelling, service and repair	
HS13	Sewage works	
HS14	Unknown filled ground	
<u>Medium risk classes</u>		10
HS15	Air shafts	
HS16	Animal and animal waste products	
HS17	Cement works, brick works, asphalt works	
HS18	Coal depot, charcoal works	
HS19	Dockyards	
HS20	Dry cleaners	
HS21	Engineering works	

HS22	Printing works	
HS23	Quarries	
HS24	Railway land	
HS25	Substations/transformers	
HS26	Textile and clothes manufacture	
HS27	Timber works	
HS28	Water treatment works	
Low risk classes		5
HS29	Food industries	
HS30	Air shafts, cemeteries, hospitals	

Vulnerability Score (VS)

VS1	Human receptors (on or within 50m of contaminative feature)	
	Residential with gardens	10
	Allotment gardens	7
	Schools/nurseries	7
	Residential without gardens	5
	Public open space and playing fields	4
	Vacant land	3
	Woodland	3
	Commercial/warehouses	2
	Industrial	1
VS2	Groundwater vulnerability	
	SPZ1/SPZ2	10
	SPZ3/Principal aquifer	8
	Secondary A aquifer	6
	Secondary B aquifer	4
	Secondary Undifferentiated	2
	Unproductive	1
VS3	Ecological receptors (spatially coincident with contaminative feature)	
	Ramsar/SAC/SPA/NNR/MNR	8
	SSSI (NB – geological SSSI's may be less vulnerable)	6
	SNCI/LNR	4

Site of Local Conservation Importance (SLCI)	2
SLCI (proposed)	1

Calculation of Risk Ranking Score

On completion of the assessment for Hazard and Vulnerability Scores, a Risk Ranking Score for the site is totalled.

There is a maximum score for each section and overall as a site can only be attributed to one criteria within each segment such as 'Human Receptors'. e.g.:

HS_{max} = 20

VS_{max} = 28

$Total_{max}$ = 48

Normalised Scores

The score of each section must be normalised using the maximum score of that section to provide even weighting of each of the three sections. The methodology for this calculation is set out below:

$HS_n = HS \times (48/2)/20$ i.e.multiplying factor of 1.2

$VS_n = (VS1 + VS2 + VS3) \times (48/2)/28$ i.e.multiplying factor of 0.86

Appendix C

Table A – Categories of Significant Harm

	Type of Receptor	Description of Harm to that Type of Receptor that is to be Regarded as Significant Harm
1	Human beings	Death, disease, serious injury, genetic mutation, birth defects or the impairment of reproductive functions. For these purposes, disease is to be taken to mean an unhealthy condition of the body or a part of it and can include, for example, cancer, liver dysfunction or extensive skin ailments. Mental dysfunction is included only insofar as it is attributable to the effects of a pollutant on the body of the person concerned. In this Chapter, this description of significant harm is referred to as a "human health effect".
2	Any ecological system, or living organism forming part of such a system, within a location which is: • an area notified as an area of special scientific interest (commonly called a Site of Special Scientific Interest - SSSI) under section 28 of the Wildlife and Countryside Act 1981; • any land declared a national nature reserve under section 35 of that Act; • any area designated as a marine nature reserve under section 36 of that Act; • an Area of Special Protection for Birds, established under section 3 of that Act; • any European Site within the meaning of regulation 10 of the Conservation (Natural Habitats etc) Regulations 1994 (ie Special Areas of Conservation and Special Protection Areas); • any candidate Special Areas of Conservation (see Scottish Office Circular 6/1995) or potential Special Protection Areas given equivalent protection; • any habitat or site afforded policy protection (i.e. candidate Special Areas of Conservation, potential Special	For any protected location: • 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; or • harm which 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 addition, in the case of a protected location which is a European Site (or a candidate Special Area of Conservation or a potential Special Protection Area), harm which is incompatible with the favourable conservation status of natural habitats at that location or species typically found there. In determining what constitutes such harm, the local authority should have regard to the advice of Scottish Natural Heritage and to the requirements of the Conservation (Natural Habitats etc) Regulations 1994. In this Chapter, this description of significant harm is referred to as an "ecological system effect".

	Protection Areas and listed Ramsar sites); • any nature reserve established under section 21 of the National Parks and Access to the Countryside Act 1949; or • any National Park designated under the National Parks (Scotland) Act 2000.	
3	Property in the form of: • crops, including timber; • produce grown domestically, or on allotments, for consumption; • livestock; • other owned or domesticated animals; • wild animals which are the subject of shooting or fishing rights.	For crops, a substantial diminution in yield or other substantial loss in their value resulting from death, disease or other physical damage. 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. The local authority should regard a substantial loss in value as occurring only when a substantial proportion of the animals or crops are dead or otherwise no longer fit for their intended purpose. Food should 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 pollutant linkage, a 20% diminution or loss should be regarded as a benchmark for what constitutes a substantial diminution or loss. In this Chapter, this description of significant harm is referred to as an "animal or crop effect".
4	Property in the form of buildings. For this purpose, "building" means "any structure or erection, and any part of a building including any part below ground level, but does not include plant or machinery comprised in a building".	Structural failure, substantial damage or substantial interference with any right of occupation. For this purpose, the local authority should regard substantial damage or substantial interference as occurring when any part of the building ceases to be capable of being used for the purpose for which it is or was intended. Additionally, in the case of a scheduled Ancient Monument, substantial damage should 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. In this Chapter, this description of significant harm is referred to as a "building effect".

Table B - Significant Possibility of Significant Harm

	Descriptions of Significant Harm (as Defined in Table A)	Conditions for there Being a Significant Possibility of Significant Harm
1	Human health effects arising from • the intake of a contaminant, or • other direct bodily contact with a contaminant (exposure).	If the amount of the pollutant in the pollutant linkage in question: • which a human receptor in that linkage might take in, or • to which such a human might otherwise be exposed, as a result of the pathway in that linkage, would represent an unacceptable intake or exposure, assessed on the basis of relevant information on the toxicological properties of that pollutant. Such an assessment should take into account: • the likely total intake of, or exposure to, the substance or substances which form the pollutant, from all sources including that from the pollutant linkage in question; • the relative contribution of the pollutant linkage in question to the likely aggregate intake of, or exposure to, the relevant substance or substances; and • the duration of intake or exposure resulting from the pollutant linkage in question. • The question of whether an intake or exposure is unacceptable is independent of the number of people who might experience or be affected by that intake or exposure. Toxicological properties should be taken to include carcinogenic, mutagenic, teratogenic, pathogenic, endocrine-disrupting and other similar properties.
2	All other human health effects (particularly by way of explosion or fire).	If the probability, or frequency, of occurrence of significant harm of that description is unacceptable, assessed on the basis of relevant information concerning: • that type of pollutant linkage, or • that type of significant harm arising from other causes.

		Such an assessment should take into account the levels of risk which have been judged unacceptable in other similar contexts.
3	All ecological system effects.	If significant harm of that description is more likely than not to result from the pollutant linkage in question, taking into account relevant information for that type of pollutant linkage, particularly in relation to the ecotoxicological effects of the pollutant.
4	All animal and crop effects.	If significant harm of that description is more likely than not to result from the pollutant linkage in question, taking into account relevant information for that type of pollutant linkage, particularly in relation to the ecotoxicological effects of the pollutant.
5	All building effects	If significant harm of that description is more likely than not to result from the pollutant 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 pollutant linkage.