Herefordshire Council

CONTAMINATED LAND STRATEGY

Review 2019

A Contaminated Land Strategy in accordance with Part IIA of the Environmental Protection Act 1990.

Introduction

Overview of the Part 2A regime.

England has, over the course of history, innovated, developed and utilised many industrial and other processes. In the past, some of these activities such as landfilling or the production of gas, generated substances which were disposed of or discarded in a way now known to be inappropriate. A number of these substances are considered to be potentially harmful to health and/or the environment and give rise to potential land contamination. Part 2A provides a way of dealing with unacceptable risks posed by this legacy.

Revised guidance was issued by the Secretary of State for Environment, Food and Rural Affairs in 2012 requiring Local Authorities to undertake a strategic approach to the inspection of land within its area. It includes three overarching principles when considering contaminated land and the Part 2A regime:

1. To identify and remove unacceptable risks to human health and the environment.

2. To seek to ensure contaminated land is made suitable for its current use.

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

The updated guidance requires each local authority to prepare, implement and review their contaminated land strategy with these objectives in mind.

Regulatory context

Part 2A of the Environmental Protection Act 1990 (EPA 1990) requires local authorities to inspect their areas with a view to identifying contaminated land. To explain to local authorities how the Part 2A regime should be carried out, updated statutory guidance was published by the Department for Environment, Food and Rural Affairs (DEFRA) in 2012.

The guidance advises that the regime should be used appropriately where no alternative solution exists. For example, development or redevelopment can provide an opportunity to address issues of contamination or issues can be dealt with voluntarily by land owners. Other, different legislative regimes or regulations may also be more appropriate such as building control regulations, environmental permitting and the Environmental Damage (prevention and remediation) Regulations 2009 amongst others.

It also recognises the need for the local authority to strike a reasonable balance between:

(a) dealing with risks raised by contaminants in land to remove or reduce those risks and;

(b) the potential impacts of regulatory intervention including financial costs, health and environmental impacts of taking action, property blight and burdens on affected people.

With the above in mind, local authorities are advised of the need to be precautionary about the risks raised by contamination without being disproportionate. The aim is to consider the various benefits and costs of taking action with a view to ensuring the regime provides net benefits, taking account of local circumstances.

When implementing the inspection strategy, the initial stance will be that the land is not contaminated land until such time as there is sufficient information to demonstrate that it is.

This is the revised contaminated land strategy for Herefordshire for 2019 and will be subject to review within five years.

The statutory guidance, together with more detail on its legislative context can be found at:

https://www.gov.uk/government/publications/contaminated-land-statutory-guidance

Provision is made within the above guidance for 'special sites', these are sites where certain industrial activities or particular uses have been carried out or where there is a particularly serious risk to water supplies or groundwater. Once it's decided that the site is a 'special site' it is regulated by the Environment Agency.

Radioactive contaminated land is considered its own right and as such has its own statutory guidance which is available here:

https://www.gov.uk/government/publications/statutory-guidance-covering-radioactive-contaminated-land

The definition of "contaminated land"

Section 78A(2) of the EPA 1990 defines "contaminated land" as any land which appears to the local authority in whose area it is situated to be in such condition, by reason of substances in, on or under the land that- (a) significant harm is being caused or there is a significant possibility of such harm being caused; or (b) significant pollution of controlled waters is being caused, or there is a significant possibility of such pollution being caused.

Under Part 2A, for a relevant risk to exist, there needs to be one or more "contaminant linkage". A contaminant linkage is comprised of three components. A "contaminant", a "receptor" and a "pathway". Where any of these parts are missing, the land cannot be designated as "contaminated land".

Where all components of the contaminant linkage are present, a risk based approach is taken through Part 2A. "risk" in this context has the particular meaning of a combination of (a) the likelihood that harm, or pollution of water, will occur as a result of contaminants in, on or under the land; and (b) the scale and seriousness of such harm or pollution if it did occur.

The process of risk assessment includes the development of a "conceptual model" of the land. This is developed through a staged approach of preliminary risk assessment, desk-based study; a site visit and walkover; a generic quantitative risk assessment and other stages of more detailed quantitative risk assessment if required. This is an iterative process which will be continued until such time as sufficient information is available to demonstrate whether or not the land meets the statutory definition of contaminated land.

Where the three components of a contaminant linkage exist, a risk assessment will be undertaken to determine the likelihood of harm being caused and the likely nature and extent of the harm being caused if the predicted event actually occurred. Part 2A is a systematic process based on Risk Assessment.

Risk Assessment

For the purpose of Part 2A guidance, "risk" means a combination of (a) the likelihood that harm, or pollution of water will occur as a result of contaminants in, on or under the land; and (b) the scale and seriousness of such harm or pollution if it did occur.

The risk assessments carried out under Part 2A are required to be (a) scientifically based; (b) authoritative; (c) relevant to the assessment of risks arising from the presence of contaminants in soil; and (d) appropriate to inform regulatory decisions in accordance with Part 2A and statutory guidance.

The approach to risk assessment under Part 2A is staged, often through phases of preliminary risk assessment (informed by a desk-based study), a

site visit and walkover; generic quantitative risk assessment; through various stages of more detailed quantitative risk assessment until it is possible for the local authority to decide: (a) that there is insufficient evidence that the land might be contaminated land to justify further inspection and assessment; and/or (b) whether or not the land is contaminated land.

Only where there is reasonable evidence that an unacceptable risk might exist should the next stage of risk assessment be carried out.

The process of risk assessment and understanding is normally developed and communicated through the use of a "conceptual model" identifying the risks.

A contaminant linkage is illustrated below and for a relevant risk to exist under Part 2A there needs to be at least one linkage present at the site being assessed.

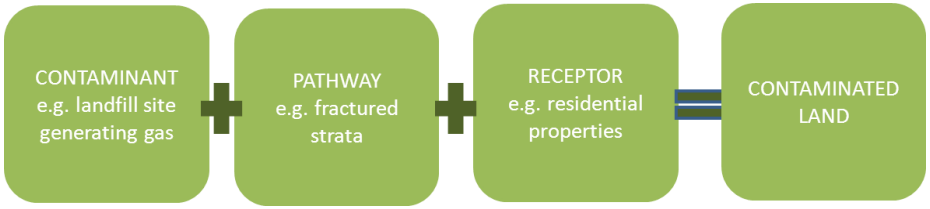

Figure 1.

Harm and Significant Possibility of Significant Harm

Part 2A of the Environmental Protection Act 1990 identifies "harm" as harm to the health of a living organism or other interference with the ecological systems of which they form a part and, in the case of man, includes harm to his property.

Information and definitions are included in the statutory guidance and https://www.gov.uk/guidance/land-contamination-how-to-manage-the-risks.

Herefordshire Councils Contaminated land inspection strategy

The statutory guidance mentions that there are two broad types of inspection that are likely to be carried out through the Part 2A regime by local authorities:

1. A **strategic inspection** which will make a broad assessment of land within Herefordshire. This will be used to identify priority areas requiring more investigation and assessment leading to;

2. A **detailed inspection** where ground conditions and risk assessment is carried out on a particular piece of land to gain further information about it.

This document details Herefordshire Councils written strategy for the inspection of potentially contaminated land in accordance with Part 2A.

The Local Authority Strategy: Overall aims

The overarching aims of Part 2A were identified in the earlier overview, and are reiterated below:

1. To identify and remove unacceptable risks to human health and the environment.

2. To seek to ensure contaminated land is made suitable for its current use.

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

Herefordshire Councils approach for ensuring the aims are achieved is detailed in the following sections.

Herefordshire Councils approach to strategic inspection

In accordance with Part 2A, Herefordshire Council has a duty to ensure that a strategic approach is adopted when carrying out its inspection duties. It is required to be rational, ordered and efficient and take into account local circumstances. The approach undertaken by Herefordshire Council to identify land which merits detailed inspection is set out by this document.

Aims

The aim of Herefordshire Councils inspection strategy is to;

'Take a strategic approach to the identification of land which merits detailed inspection'

Objectives

To demonstrate the aim of the Councils inspection strategy, several objectives need to be achieved. These are;

a) To ensure compliance with and enforcement of Statute.

b) To ensure that the Council approaches its duties in a rational, ordered and efficient manner.

c) To ensure the Council adopts a risk based approach to the identification and remediation of contaminated land and seeks to ensure that the most pressing and serious problems are identified first.

d) To ensure that adequate resources are provided and that these resources are concentrated in areas where the authority is most likely to identify contaminated land and that the authority efficiently identifies requirements for the detailed inspection of particular areas of land.

e) To ensure procedures are in place for the open provision of information to the public, developers and others.

f) To ensure that issues of contamination in relation to the Councils current and future land holdings are addressed.

g) To ensure that all stakeholders are aware of the authorities intentions in respect of contaminated land.

h) To provide the required information to the Environment Agency on contaminated land.

The approach to inspection will:

a) Be rational and ordered.

b) Be proportionate to the seriousness of any actual or potential risk.

c) Seek to ensure the most pressing and serious problems are located first.

d) Ensure that the resources are concentrated on investigating areas where the authority is most likely to identify contaminated land.

e) Ensure that the local authority efficiently identifies the requirements for the detailed inspection of particular areas of land.

f) Seek to minimise unnecessary burdens on the taxpayer, businesses and individuals.

Aspects of Herefordshire relevant to the inspection strategy

When assessing risks from land contamination, there are local factors which need to be considered to understand some of the characteristics of the area. Fifteen have been included for as part of the inspection strategy. These are:

1. Vision of Herefordshire Council.
2. Geographical location.
3. Size of Herefordshire.
4. History of Herefordshire.
5. Current and past industrial history.
6. Population and economy.
7. Authority ownership of land.
8. Current land use characteristics, biodiversity and geodiversity.
9. Protected locations.
10. Key property types.
11. Key water resource and protection issues/hydrological characteristics.
12. Geology, geomorphology and economic geology.
13. Redevelopment history and controls.
14. Known information on contamination.
15. Action already taken to deal with contamination.

Vision of Herefordshire Council

Herefordshire Councils vision is; "Herefordshire: a place where people, organisations and businesses work together within an outstanding natural environment, bringing about sustainable prosperity for all."

To bring about this vision, the council has a number of priorities centred around people and the economy. These include supporting economic growth and connectivity, supporting the improvement of quality of our natural and built environment and making sure people stay safe. The councils contaminated land strategy accords with these aims through both its proactive inspection of priority sites and through the planning regime and its core strategy.

The Government is committed to the concept of sustainable development which was set out by Resolution 42/187 of the United Nations General Assembly in 1987. It is defined as meeting the needs of the present without compromising the ability of future generations to meet their own needs. The National Planning Policy Framework 2018 (NPPF) is one of the tools which can be used to promote the principle and land contamination risks are included within this policy.

The core strategy for Herefordshire shapes the future development and sets the overall strategic framework for the county. Within it, it aims to encourage the re-use of brownfield land and ensure that proposals make efficient use of land – taking into account the local context and site characteristics, including land stability and contamination.

In addition to dealing with issues of contamination through the planning regime, Herefordshire Councils contaminated land strategy, this strategy, can be a mechanism for the investigation and assessment of sites which are unlikely to be subject to redevelopment.

For more on the Councils vision, go to https://www.herefordshire.gov.uk/about-your-council and follow the links.

Geographical location

Herefordshire is a predominantly rural county which lies along the Welsh borders. It is neighboured by the counties of Gloucestershire, Worcestershire, Shropshire, Powys and Gwent. The landscape is varied and comprises high hill ranges around much of the perimeter pierced by the principal rivers with low-lying plains in the centre. The main river crossing points have provided a natural focus for the development of settlements. The county town and dominant centre is the city of Hereford itself. There are the five market towns of Ross-on-Wye, Leominster, Kington, Ledbury and Bromyard which act as rural centres in the surrounding area. It has limited access to major communication links with access to the M5 and M50 being the nearest motorways. Major transport arteries through the county are the A49 which runs north to south and the A4103 which runs east to west, train stations are located at Hereford, Ledbury, Colwall and Leominster and many of the lines are single track. Herefordshire has two Areas of Outstanding Natural Beauty (AONB) being a section of the Malvern Hills and the Wye Valley, a number of listed buildings, nature parks and areas and sensitive land use areas.

Size of Herefordshire

The county spans about 50km east to west and some 60km north to south. Its total area covers 218,283ha, with 172, 246ha being farmed in 2010.

History of Herefordshire

As a landlocked county, Herefordshire was dependant on the Wye for its main means of communication with the outside world until the industrial revolution. The city served as a military port and border sentry post on the Celtic frontier with Mercia. This Marches identity and a north-south orientation were also reflected in the ancient Offa's Dyke, the chain of border castles and other historic features. Overlaid on this history are the ecclesiastical and administrative roles associated with a cathedral city and its hinterland. Herefordshire's associations are strongest with its neighbours Worcestershire and Shropshire and with Gloucestershire in the south west region. This is evident in the main transport axes.

Current and past industrial history

The industrial era has had a relatively limited impact on the county, with few major manufacturing enterprises developing. Due to the predominantly rural nature of the county, agriculture and primary industries such as mineral extraction dominated the industrial history of the county. And with its isolation from the industrial revolution, trades associated with agriculture and farming tended to dominate.

The following are industries which were common to the county:

Tanneries were quite widespread across the county and were often situated away from settlements (due to the smell) and near to a plentiful supply of water.

Textiles. The milling of textiles could be found in the county both along the Lugg and Wye rivers in the county and, for a time in the 17th century, gloves from Hereford had a reputation for quality.

The food and drink industry was an important source of employment by the 1930s with large jam making and bottling manufacturers in Hereford and Ledbury. Breweries were also prevalent due to the counties supply of hops and cider apples. During the 19th century there were some 58 brewers and maltsters recorded in Hereford and the surrounding market towns. Alongside the breweries, a major mineral water supplier developed in Colwall in the south east of the county, taking advantage of its proximity to the natural springs of the nearby Malvern Hills.

Brickworks and quarrying operations have historically been carried out on a greater or smaller scale throughout the county. Herefordshire's geology of glacial deposits has led to numerous sand and gravel quarries with clay extraction for brickwork and tileworks such as those at Holmer and Whitestone in Hereford.

Other industries of note and relevance are the former munitions work at Rotherwas, to the south of the city and a large nickel-alloy works to the north which pioneered the use of specialist alloys in the aircraft industry.

Population and economy

Herefordshire has around a population of around 183,600 (mid 2011). This is relatively low for a large county and is the 4th lowest population density in England. The population distribution is in a classic form. The main county town of Hereford has about 58,900 (2011) residents with the satellite market towns of Leominster (11,700), Ross (10,600), Ledbury (9,600), Bromyard (4,500) and Kington (3,200) being the other major settlements in the county. The rest of the population are scattered through the county with 25% living in 'very sparse' areas. The population of Hereford has grown by some 7% between 2001 and 2011 whilst the market towns have seen a more subdued growth of between 2 and 5%.

There has been a net growth of in-migration between 2001 and 2011 with estimates suggesting the majority of residents migrating to Herefordshire from outside of the UK. There have been fewer births than deaths over the period and as such net population growth can be entirely attributed to in-migration.

Herefordshire has a low economic output with contributions of each individual provider, industry or sector being lower than the national average with persistently low wages. Unemployment is low when compared with the rest of the west midlands with poverty affecting 1/5th of households (this is similar to the national and regional averages).

Sectors providing most employment in the county are those which tend to be associated with lower wages such as the wholesale and retail trade (18%), manufacturing (16%) and human health and social work (15%) together with agriculture (estimated at 8%). (All figures quoted are from 2011).The majority (65%) are employed in Hereford and the market towns, Hereford city accounts for 41% with Leominster (8%), Ross on Wye (8%) and Ledbury (6%) providing the main employment centres.

More useful details, statistics and definitions about Herefordshire and its residents can be found at http://factsandfigures.herefordshire.gov.uk.

Authority ownership of land

Herefordshire Council owns a wide variety of properties and other assets, some of which have been put to potentially contaminative uses such as waste disposal, engineering workshops and a former munitions works. There are also a large number of schools which are owned by the Council and would be considered a sensitive receptor to contamination.

Current land use characteristics, biodiversity and geodiversity

The topography, geology and rivers of Herefordshire have preserved many natural features and traditional land uses resulting in a county rich in biodiversity and natural assets. The counties geology, resultant soil types and the vegetation they support have shaped a landscape which is highly fertile, particularly on low lying land making food production an enduring primary activity.

The biodiversity and geodiversity resource of Herefordshire is rich and diverse with Areas of Outstanding Natural Beauty (AONB) designated along parts of the Wye Valley and the Malvern Hills to the east of the county. Other national designations include 4 Special Areas of Conservation (SACs) and 77 Sites of Special Scientific Interest (SSSI) sites together with 773 Local Wildlife Sites (LWS) which, between them, cover 9% of the County. There are also some 117 Local Geological Sites of which 21 have been afforded the SSSI status.

Further information on biodiversity and geodiversity can be found by following this link https://www.herefordshire.gov.uk/info/200177/conservation/224/ecology And https://www.herefordshire.gov.uk/info/200177/conservation/224/ecology/5

Key property types

English Heritage (http://www.english-heritage.org.uk) record 264 Scheduled Ancient Monuments (SAMs) in Herefordshire. One of these, Sutton Walls, is an old waste disposal site. There are also approximately 20,000 other sites which are not SAMs but have some protection through the planning regime.

Appropriate consideration will be given for listed buildings, world heritage sites, historic parks and gardens and other similar property types when looking at land through the Part 2A process.

Contact Herefordshire Councils SMR team for more information at http://htt.herefordshire.gov.uk.

Key water resource and protection issues/ Hydrological characteristics

Within Herefordshire, the river Wye is the principle river providing the main resource for drinking water abstraction. Water is abstracted for public supply at Broomy Hill Treatment Works, Hereford. The river Wye's major tributaries, the Lugg and Arrow, are the main rivers and form part of the Wye catchment whose quality is reviewed periodically by the Environment Agency. In 2009 the Wye catchment contained 136 river water bodies and 8 lakes. 35% of these achieved at least a good ecological status, 45% of those assessed (115 water bodies) were identified as having at least good biological status with 100% achieving at least good chemical quality (10 assessed). The Wye is one of the premier salmon rivers in England and Waler. The Wye and Lugg also support a wide variety of other species of fish, plants, invertebrates and mammals that are of European importance and have been designated Special Areas of Conservation (SAC). Additional information can be found through the Environment Agency web pages http://www.environment-agency.gov.uk.

Hydrogeology

Herefordshire is generally underlain by Devonian and Silurian sandstones which have been designated as Secondary A aquifers, with some secondary B aquifers to the East of the county. The sandstones are considered to have a low primary porosity with the predominant groundwater flow more likely to be through fractures. The majority of flow is expected from the upper 50 metres as fractures tend to close with depth.

Where groundwater is present in the superficial deposits, it is normally in hydraulic continuity with the local surface water regime and less frequently with the underlying solid geology (After Moreau et al, 2004).

A number of SSSI's depend to some extent on groundwater seepage and flow. Therefore contamination of the groundwater will have an impact not only on groundwater, but potentially surface water and protected locations.

Private water supplies

There are more than 3,000 private water supplies in Herefordshire. These are a mixture of springs, wells and boreholes. Many supply single domestic dwellings whilst others supply 2,000 to 3,000cu.m/day for food processing. There are also several bottled water companies in the county which produce some 80,000cu.m of bottled water per year.

The Private Water Supplies of Herefordshire provide a vital source of clean water where no public supply is available and are considered a sensitive receptor to contamination.

Herefordshire Councils Pollution team undertake monitoring of some private water supplies in the county and can be found at https://www.herefordshire.gov.uk/info/200145/business/135/water_supplies.

Geology, geomporphology and economic geology

Northern Herefordshire is predominantly underlain by the Devonian sands, silts and muds of the Old Red Sandstone Series (ORS). The hilly topography towards the north of the county and towards Bromyard, are formed from the more erosion resistant sands. Much of the ORS in the rest of the county is composed of the more silty and muddy rocks leading to the landscape being of a relatively more subdued nature. There is little exposure of pre-Devonian lithologies in the area apart from some localised Silurian limestones and siltstones towards the north. These rocks were laid down on a coastal floodplain some 417-354 million years ago.

Structurally, the River Lugg can be considered to divide the north of the county. To the west of the river the rocks dip at generally shallow angles of less than 10 degrees. To the east of the river the rocks are commonly found with faulting trending north east to south west and north west to south east with dipping at angles of more than 25 degrees.

Superficial glacial deposits and river terrace gravels overlie much of northern Herefordshire consisting of unconsolidated gravels, silts, sands and clay.

Towards the south of the region, the rocks of Herefordshire generally become younger with the Marly Lower ORS being succeeded by the younger, more sandy Lower and Upper ORS. Towards Ross-on-Wye the Devonian ORS is replaced by carboniferous limestones.

Geomorphology

Devensian glacial and periglacial erosion profoundly affects the geomorphology of the district. The advancing ice eroded the soft mudstone bedrock and widened the valleys and there were major diversions of the drainage patterns by the ice, most seriously affecting the rivers Wye and Lugg. The former river Wye ran on a course through Stretton Sugwas to Hereford along a line close to that of the present day Yazor brook before being blocked at Stretton Sugwas and diverted through Breinton gorge.

Economic geology

Herefordshire geology lends itself to being most extensively quarried for the gravels produced by the glaciations of the area although some brick and lime extraction has taken place in the past.
The silty mudstones of the Lower Old Red Sandstone have been the main source material for the brick and tile industries with numerous, early small pits scattered across the district. Larger operations were opened in the early 19th and 20th century such as those at Tupsely, Hampton Park and Barons cross.
The raw material of the lime burning industry was primarily the Bishops Frome limestone from the top of the Raglan mudstone formation and has been heavily exploited for aggregate or agricultural lime purposes. Much of its outcrop is now inundated with a large number of disused pits or quarries.

Because of its poor durability, the Old Red Sandstone found in the area has not been widely utilised as a building stone, it has only been used for local building or rough stone walling. Some underground working exists at Bishops Frome.

Hard stone beds have been exploited for road or rail construction with the basaltic intrusion at Bartestree having been largely quarried away by the beginning of the century. The Bishops Frome limestone has also been extracted for road building material, as has the Aymestry limestone at Perton quarry. One of the largest sand and gravel resources can be found to the west of Hereford with depths of up to 20 metres recorded in quarry faces near Stretton Sugwas. Large scale extraction of the newer glacial gravels has also been undertaken in the Lugg valley at Wellington and Bodenham.

Due to the relatively high water tables, a large proportion of the sand and gravel beds in the area have not been exploited to any great extent.

Redevelopment history and controls

Redevelopment of contaminated sites has been mainly carried out through the planning process. This is discussed further below. However, land that has a pre 1948 use would not have been through the planning process.

As discussed previously, other regulatory mechanisms and alternatives to Part 2A are contained within such Regulations as Voluntary works, Approved Document C Building Regulations, The Environmental Damage Regulations, Brownfield Registers. It is anticipated these are all fully explored prior to Part 2A.

Action taken to deal with contamination

A large number of sites have been dealt with through the planning process since 2001 and the publication of Herefordshire Councils previous contaminated land strategy. Many sites have been assessed through the planning regime to ensure their suitability for intended use. These include a wide range of sites such as gas works, military sites, dry cleaners, saw mills and railway land.

Contamination is a material consideration in the planning process and any site that passes through is required by the NPPF to be safe and suitable for its intended use. As such, this mechanism aims to ensure no sites are capable of being determined as contaminated land. Herefordshire Councils Core Strategy includes contamination in policy SD1. https://www.herefordshire.gov.uk/info/200185/local_plan/137/local_plan_-_core_strategy/2.

Sites Determined as Part 2A in Herefordshire

A single site has been determined under the Part 2A regime as contaminated land in Herefordshire. This is a former landfill site to the north of Hereford.

More information on determined sites in the county can be found at https://www.herefordshire.gov.uk/info/200145/business/146/contaminated_land.

Strategic Inspection and the prioritisation of potentially contaminated sites

A risk based approach has been used to prioritise areas for further investigation. Whilst recognising that each area of land must be dealt with on an individual basis, those which are identified as presenting an unacceptable risk to human health will be given priority by the Council. The Council will also take into account information provided by the Environment Agency (EA) on the vulnerability of controlled waters.

To prioritise the risk from potentially contaminated sites, the Council designed and implemented a bespoke Geographical Information System (GIS) based approach. This included, amongst other data, detail of potential source and receptor data based on previous and current use.

This provided a broad map based dataset of information used as a base for the prioritisation of sites. This was then augmented with other sources of information held by or known to the Council (such as historical knowledge landfill sites, petroleum records and similar) to enable progress of investigation and assessment.

The software was developed on the contaminant-pathway-receptor principle and as such is considered a rational and ordered mechanism and prioritisation tool.

Datasets of information were considered either a source of contamination or a potential receptor to it. Categories within each dataset were then assigned a score with weighting where appropriate. For example, human receptors were weighted more heavily than ecological. Then, by using bespoke GIS methodologies, a 10m square grid of the county was developed which provided a score on which priority was based.

The output of the prioritisation exercise resulted in the identification of more than 8000 potentially contaminated sites.

Detailed inspection, prioritisation and remediation of potentially contaminated sites.

The completion of the initial screening process which formed the strategic inspection enables informed judgements to be made for additional phases of detailed inspections. Detailed inspections are commenced where the local authority considers there is a reasonable possibility that a significant 'contaminant linkage' exists.

The Local Authority will consider contamination at priority sites owned by itself in the first instance where there is considered a potentially significant risk in accordance with guidance. This approach is adopted to demonstrate the Local Authorities commitment to its obligations under Part 2A and set a precedent for other land owners to encourage voluntary assessment and remediation.

Priority sites will be assessed through accepted good practice broadly described in BS10175:2017 amongst others and is not repeated here. In general terms the process can be described as phased, where each phase gathers and considers more detail and more information from a starting point of desk based which may be just an historic map or plan through phases of paper based and intrusive sampling to final risk assessment and remediation where necessary.

The risk assessments will be carried out in accordance with the most appropriate and up to date guidance available. Following a detailed inspection, the site will be allocated a category according to risk.

It is likely that specialist advice will be sought throughout the assessment process and in some instances, the Environment Agency will be the lead regulator. These sites are called special sites. The criteria for meeting the status of special site is defined in the Contaminated Land Regulations and their investigation and designation is carried out in close and detailed consultation with the Environment Agency.

Determination of Contaminated Land

On completion of the detailed inspection phase, an informed decision will be made on whether a site meets the criteria for determination as contaminated land or not. The Local Authority will allocate a category on the basis of significant possibility of significant harm in accordance with guidance. The categories range from category 1 to category 4 with decreasing risk. Category 1 sites are those where there is an unacceptably high probability that significant harm would occur if no action was taken to stop it. Category 4 sites are those where the risk is low with 2 and 3 being somewhere in between.

There are 4 possible grounds on which to determine land as contaminated (with regard to non-radioactive contamination). (a) that significant harm is being caused (b) there is a significant possibility of significant harm being caused (c) significant pollution of controlled waters is being caused or (d) there is a significant possibility of significant pollution of controlled waters being caused.

Category 1 or 2 are those sites which the criteria of contaminated land is met and 3 and 4 those where it's not.

Due to the complexities and range of expertise required, the Local Authority will seek expert advice from relevant industry and Public organisations such as the Environment Agency, Public Health England, English Heritage and any relevant to the assessment.

Remediation of Contaminated Land

Where sites are considered to be category 1 or 2, it is likely remediation will be required to mitigate the harm or possibility of harm. The aim of remediation is to reduce any harm to an acceptable level and is achieved by breaking the contaminated linkage. This can be achieved through removal of the contaminant source, the introduction of barriers or modification of the receptor for example.

Risk Summaries

Upon completion of a detailed inspection of the site and once the appropriate regulatory decisions have been made, the Local Authority shall produce a risk summary. This is a laypersons guide to the Authorities understanding of the risks, including uncertainties together with its views on possible remedial approaches. The risk summaries are only produced for those sites which have been determined as contaminated land (category 1 and 2) a risk summary will not be produced for those assessed but not determined (category 3 and 4).

Herefordshire Councils broad approach to contamination.

Redevelopment of previously developed land is a primary mechanism in the approach to dealing with contaminated land. It is through this process that many sites in the county have been assessed and remediated to ensure suitability for use. Voluntary action is also encouraged and welcomed and there are examples where owners of land affected by contamination have carried out their own assessments without the need for Part 2A to be used directly.

It is likely that both voluntary remediation and the planning regime will remain important contributors to dealing with contamination in the county.

Record of determination

The Local Authority is required to prepare a written record of any determination that land is contaminated land. This record will accurately record the location, boundaries and area of the land and is publically available.

The record will include the risk summary will include conceptual site models, plans, tables cross sections and descriptions to make the determination understandable to non-specialist and laypersons. It should also include a summary of how the site meets the criteria of determination as required by the Statutory Guidance.

Liability

Part 2A operates on the principle of polluter pays although this is not always possible or practicable. When considering liability, the Local Authority initially looks at those who caused or knowingly permitted the significant contaminant linkage. If none are found, the owners or occupiers of the land are usually sought.

The Statutory Guidance includes a number of exclusion tests when considering apportionment of liability to ensure responsibility is allocated appropriately.

In instances where responsibility cannot be established, the linkage becomes ‘orphan’ where the Local Authority can be responsible for costs of clean-up.

The statutory guidance provides a significant amount of detail about liability which can be reviewed here: https://www.gov.uk/contaminated-land.

Cost recovery

It's recognised that there will likely be wide variation in situations under Part 2A. However, there are principles within any cost recovery decision which the Local Authority has regard to including; that the overall result should be fair and equitable as possible to all that may have to meet the cost of remediation. This includes local and national taxpayers and that wherever possible the polluter pays principle should be applied.

The Local Authority will aim to recover all reasonable costs although there are circumstances where it may be appropriate and reasonable not to do so. Such as to avoid undue hardship. Costs may be also recovered in part where it may be unreasonable to recover all costs.

Progress to date

Two sites have been investigated and assessed through Part 2A to date. One of which was determined as contaminated land in 2001 but was more recently subject to reassessment to consider whether the initial determination remained valid.

A second site was subject to investigation in partnership with the Environment Agency between 2011 and 2014. This site was considered not to meet the criteria for determination as contaminated land.

Both sites were complex landfill sites with risks from ground gases and contaminated groundwater primary contaminant linkages under consideration.

In addition to the above, many sites have been subject to assessment through the planning regime. These have been remediated where necessary thereby negating the need for Part 2A involvement. With contamination remaining a material consideration within the planning process, it is likely this will be the primary mechanism for assessment and remediation of potentially contaminated sites in Herefordshire.

It is unlikely further significant proactive Part 2A investigations will be carried out in the foreseeable future given effective withdrawal of central funding and Local priorities and constraints.

Viewing the strategy

This strategy is available as a free download from the Council's website. Provision can also be made to view a paper if required.

Viewing the public register

The register of land determined as contaminated land is available upon request. Any enquiries should be made to https://www.herefordshire.gov.uk/contactus or telephoning 01432 261761.