# Former Wycombe district area – contaminated land inspection strategy





## CONTAMINATED LAND INSPECTION STRATEGY

### PART IIA OF THE ENVIRONMENTAL PROTECTION ACT 1990



CONTROL OF POLLUTION UNIT ENVIRONMENT SERVICE WYCOMBE DISTRICT COUNCIL (UPDATED MARCH 2018)

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#### Introduction

Section 57 of the Environment Act 1995 created Part 2A of the Environmental Protection Act 1990 ("Part 2A"), establishing a legal framework for dealing with contaminated land in England. It came into force on 1st April 2000.

To summarise, section 78B of Part 2A states that:

- (1) Every local authority shall cause its area to be inspected from time to time for the purpose:
- (a) of identifying contaminated land; and
- (b) of enabling the authority to decide whether any such land is land which is required to be designated as a special site.
- (2) In performing these functions, a local authority shall act in accordance with any guidance issued for the purpose by the Secretary of State.

Where we identify any Contaminated Land (as defined\*), we are required to give notice to those who own or occupy the land and anyone who appears to be the appropriate person for the purpose of any remediation. The Environment Agency will act as the enforcing authority for land which is designated as a "special site" or "radioactive contaminated land".

We are only able to use Part 2A where no alternative solution exists.

In accordance with all of the legislation and guidance, a Strategy was originally published and adopted by Wycombe District Council in 2001. Since that date, it has been subject to various officer reviews and updates. This Strategy has been produced to take into account the most recent Statutory Guidance (2012), as well as other changes to the regime.

#### Definition of contaminated land

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

- (a) significant harm is being caused or there is a significant possibility of such harm being caused; or
- (b) significant pollution of controlled waters is being caused, or there is a significant possibility of such pollution being caused.
- (c) For Radioactive Contaminated Land that:

- (i) harm is being caused; or
- (ii) there is a significant possibility of harm being caused.

#### **Key documents**

- Part 2A of the Environmental Protection Act 1990
- <u>Contaminated Land Statutory Guidance 2012</u>
   This explains how Councils should implement the regime, including:
  - 1. how we go about deciding whether land is contaminated land;
  - 2. the goals of remediation and its reasonableness;
  - 3. liability;
  - 4. the circumstances when we can recover the costs of remediation.
- The Contaminated Land (England) Regulations 2006
- Radioactive Contaminated Land Statutory Guidance

This Strategy has been produced to comply with all relevant documents (as they exist at the time of publication) and much of the text has been derived from them.

Please note that the Part 2A regime is extremely complex and in all cases it will be necessary to refer to the primary legislation and most current statutory guidance.

#### Objectives of the Part 2A regime

The UK has a considerable legacy of historical land contamination involving a very wide range of substances. On all land there are background (or "normal") levels of substances, either natural (owing to geology) or resulting from diffuse human pollution (such as atmospheric particles from fossil fuel combustion, use of fertilisers etc.). However, on some land there may be greater concentrations of contaminants. These are often associated with past uses of land, especially industrial or waste disposal uses, where regulatory controls may have been limited, or the health effects of certain pollutants not as well understood as they are today. In a minority of cases, there may be sufficient risk to health or the environment for such land to be considered contaminated land. Part 2A provides a means of dealing with unacceptable risks posed by land contamination to human health and the environment, and Wycombe District Council is required to both find and deal with such land.

Under Part 2A, the starting point assumption is that land is not contaminated land, unless there is reason to consider otherwise. Only land where unacceptable risks are clearly identified will meet the Part 2A definition of contaminated land.

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

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

Part 2A should only be used where no appropriate alternative solution exists.

It will not be used:

- When land is appropriately developed/redeveloped under planning or building control;
- Where action is taken independently by landowners; or

• Where other legislative regimes apply e.g. environmental permitting or the Environmental Damage (Prevention and Remediation) Regulations 2015.

Where decisions are not straightforward or there is unavoidable uncertainty underlying some of the facts of a case, we will use our judgement to strike a reasonable balance. We will take a precautionary approach to the risks raised by contamination, whilst avoiding being disproportionate, and will take into account the circumstances of each case. The aim will be to consider the various benefits and costs of taking action (and local circumstances), with a view to ensuring that the regime produces net benefits. All matters will be considered with reference to the legislation and statutory guidance.

#### The relationship between Part 2A and planning

Most land contamination is dealt with through the planning process. The approach has been set out in the National Planning Policy Framework (NPPF). Just because land is affected by contamination does not mean that it is contaminated land.

#### **Planning**

- Considers future use
- Considers "land affected by contamination"
- Must ensure that, after remediation, as a minimum, land should not be capable of being determined as "contaminated land" under Part 2A

#### The developer's role:

- Responsible for ensuring that a development is safe and that the land is suitable for the use intended, or can be made so through remediation.
- Ensure competent persons (as defined in Annex 2 of the NPPF) carry out adequate investigations, risk assessments, remediation and verification.

The Buckinghamshire Land Quality Forum has produced a technical guide for developers – please refer to Wycombe District Council's website.

#### Part 2A

- Considers current use
- Considers "contaminated land"
- Only considers contamination that is causing unacceptable risk to human health or the environment
- Applicable for sites where development is unlikely, or that have already been developed

#### Situations where the Part 2A regime does not apply

In addition to the planning regime (and dependent upon the nature of the contamination) other regimes may also be appropriate, for example:

- Environmental Damage (Prevention and Remediation) Regulations 2015 (as amended from 2009 to transpose Article 38 of the Offshore Safety Directive 2013) - requirements for "operators" of specific types of "activity" to respond to certain imminent threats and actual cases of environmental damage.
- Environmental Permitting (England and Wales) Regulations 2010 preventing or reducing emissions to air, water and land from prescribed industrial processes.
- Water Resources Act 1991, amended by the Water Resources Act (Amendment)(England and Wales) Regulations 2009 - pollution incident directly into a body of water where the land is no longer causing pollution.
- Health and Safety at Work etc. Act 1974 where there is a risk of harm to persons at work from land contamination.
- Control of Major Accident Hazard Regulations 1999, amended by the Control of Major Accident Hazards (Amendment) Regulations 2005 – for a major incident which has caused land contamination.
- Building Regulations 2010 ("Approved Document C Site preparation and resistance to contaminants and moisture", 2004 Edition incorporating 2010 and 2013 amendments) – requires precautions to avoid danger to health and safety caused by contaminants in ground to be covered by buildings and associated ground.
- Environmental Protection Act 1990, Part III (Statutory Nuisance) neither "Contaminated land" nor "land in a contaminated state" can be a Statutory Nuisance; however nuisance from odour can be considered.

We will seek to minimise unnecessary burdens on the taxpayer, businesses and individuals by encouraging voluntary action to deal with land contamination issues as far as reasonable and practicable.

#### **Wycombe District Council's inspection duties**

Part 2A requires that we inspect our area from time to time, for the purpose of identifying contaminated land and deciding whether any such land is a special site, and to do this in accordance with the Statutory Guidance. This written Strategy has been published in accordance with our inspection duties and to reflect local circumstances. The original Strategy was published and adopted in 2001 and has undergone intermittent officer review since then, the last in 2010. This Strategy has been updated to reflect the 2012 Statutory Guidance and other recent changes to the regime. This Strategy will be kept under periodic review to ensure that it remains up to date and we will aim to review our Strategy at least every five years. There are two types of inspection:

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



#### Strategic inspection

#### Our aims, objectives and priorities

Part 2A of the Environmental Protection Act 1990 compliments the Council's own corporate aims and objectives. The identification and safe use/re-use of land which is contaminated plays a key part in the sustainable development of the district.

The main objective of our Corporate Plan (to 2019) is to ensure that "Wycombe district is economically strong and the place to live work and visit". In order to achieve this we have prioritised the themes of "people, place and pounds" - the three Ps:

Place: regeneration and infrastructure

People: cohesive communities

Pounds: value for money services

The three Ps will be prioritised within our wider Sustainable Community Strategy (to 2031) which is structured upon the following views and needs of our residents:

- Thriving economy
- Sustainable environment
- Safe communities
- Health and wellbeing
- Community Involvement

In addition we have a corporate environmental policy designed to meet our national and international legislative obligations, to develop local sustainable communities, enhance the local environment, deliver environmentally-friendly services and enforce environmental legislation to help stem the depletion of the world's finite natural resources.

It is intended that land contamination will be dealt with in the main either through the planning and development control process or by way of voluntary remediation. The Council's Contaminated Land Strategy is available to address contamination which meets the statutory definition and which cannot be dealt with by any other means.

#### **Characteristics of the Wycombe District**

#### Geographical location

The Wycombe District occupies the south-west part of the County of Buckinghamshire, to the west of London. The District is bounded by the River Thames in the south, extends into the Chiltern Hills in the north, bounded by the County of Oxfordshire in the west, and falls just short of the commuter town of Beaconsfield in the east.

#### **Brief history/description**

The town of High Wycombe is one of the oldest boroughs in the country. The Wycombe District encompasses a variety of landscapes (rural and urban) which reflect the contrasting geography of the district. The north and west of the District comprises of the Chiltern Hills area of outstanding natural beauty and is rural in character, with scarp relief. The town of High Wycombe is the main urban centre and occupies the valley of the Wye. There is also the Thames-side town of Marlow, the rural settlements of Princes Risborough, Stokenchurch and Lane End, and many villages.

The history of the District can be traced to Roman times, and the town of High Wycombe is situated at the head of a pass to what was the major route to the Midlands. The District has been shaped by milling, mineral extraction, furniture manufacture and population movements.

#### Size

Wycombe District's boundaries encompass a much wider area than just the town of High Wycombe. The District covers an area of 125 square miles (32 458 hectares).

#### Population distribution

The 1996 estimate of population for the District was 163 870, with a forecast of zero growth up to 2011. Approximately 94 000 (58%) live in urban areas – High Wycombe, Marlow, and Princes Risborough.

#### Land owned by the Council

Wycombe District Council has limited land holdings and mainly comprises of open space (parks and recreation grounds), towpaths, and a very small amount of industrial land.

#### **Current land use characteristics**

The main land use in the District is agriculture and forestry, with 71% of the land area designated as an Area of Outstanding Natural Beauty. The economic base of the District is centred on High Wycombe and Marlow. The traditional industries of furniture and paper production have given way to service and high tech industries. However, agriculture is important in the local areas outside of the main towns.

#### **Protected locations**

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

- Five Nature Conservation Review sites (NCRs) Naphill Common, Ellesborough/Kimble Warren, Coombe Hill, Bradenham Park Woods, and Aston Rowant (also a National Nature Reserve).
- There are 23 biological Sites of Special Scientific Interest and two geological SSSIs in the Wycombe District.
- Four Local Nature Reserves (LNRs) Chairborough, Prestwood, Sands Bank, and Whiteleaf Hill.

#### Key property types

Wycombe District has a rich cultural heritage and historical environment. At present there are 42 Scheduled Ancient Monuments, 1215 Listed Buildings, 60 Conservation Areas, and 6 Parks and Gardens of Special Interest.

#### Key water resource/protection issues

Drinking water is supplied by Thames Water Utilities Limited and Three Valleys Water Services Plc.

Key issues include increasing demand for water, below average river water quality, increasing number of pollution incidents, the use of pesticides in agricultural areas, groundwater pollution from old waste disposal sites, and the threat to ecological diversity of water courses in the face of low flows, poor river quality, and increasing proportion of sewage effluent. A significant portion of the Wycombe District lies within Source Protection Zones for two major public water supplies. The Environment Agency will be fully consulted on such issues, as well as providing information on groundwater abstraction points, groundwater vulnerability, and Source Protection Zones.

#### Known information on contamination

Such information is now held by Wycombe District Council's Contaminated Land Officer in a historic electronic filing system, access-restricted GIS workspace, and current working files.

#### **Current and past industrial history**

Historically, the Wycombe District has been mainly agricultural, with a local industrial base of paper and corn mills in the town of High Wycombe. In the early 1900s furniture production became of increasing importance, and is still a major employer in the District. After the Second World War, the trend of industrial translocation from London led to the rapid expansion of light industry around High Wycombe. This was aided by the location of RAF and USAF headquarters within the District. This is still evident today, with the major employers being engineering services and, more recently, high technology and computer software/internet services.

#### Broad geological characteristics

The Wycombe District is characterised by a solid geology of upper and middle Chalk, which is orientated northeast to southwest. This Chalk forms the Chiltern Hills, and are characterised by steep scarp slopes and shallow Chalky soils (claywith-flints). This Chalk is very permeable, and water rapidly percolates downwards through the pore spaces, joints, and fractures. The Chalk outcrops are dissected by three valleys (Hamble Brook, River Wye, and the Hughenden Stream), which are infilled with valley gravels. The town of High Wycombe lies in such a valley, with pockets of sand, gravel, and clay. The south of the District, along the Thames (and including Marlow), is dominated by alluvial deposits of sand and gravel. This part of the Thames Valley had, until recently, been a rich extraction zone for sand and gravel.

#### **Broad hydrogeological characteristics**

As already mentioned, the Wycombe District is dominated by Chalk beds which are highly fractured. Thus the entire District is classed as a major aquifer and there is much abstraction from deep wells. In general this groundwater is of very high quality. However the shallow soils of the District offer very little attenuation to source pollutants and there is a potential for the pollution of the Chalk strata and of shallow groundwater. The fractured nature of the underlying geology has limited surface water to two minor Chalk streams – the River Wye and the Hamble Brook. These low flow streams are susceptible to pollution incidents and to surface runoff from areas of extensive development. The South of the Wycombe District is marked by the River Thames.

#### **Soil Contamination**

The Soil Survey and Land Research Centre undertook a national soil survey in 1995. This survey suggests that the soils of the Wycombe District are not naturally metal enriched, with low levels of lead, cadmium, and zinc. However, samples for this survey were collected at 5km grid square intervals, and localised soil contamination due to industrial and agricultural activities may not have been detected.

#### Our approach to strategic inspection

We have taken into account the characteristics of our area and used these to consider the risks posed to relevant receptors in the following manner:

#### Initial prioritisation

A database of historical land use was purchased from Landmark Information Group in 2003 and was incorporated into a Geographical Information System (GIS) mapping layer created. This data was ranked by Landmark Information Group into low, medium, and high risk sites based on the nature of former land use and thus a broad preliminary assessment of risk was created. This was in no way considered to be definitive, but did create a list of sites to consider in more detail, and in an order which seemed logical.

The sites identified have only the potential to be contaminated, since this assessment has been based on historical use alone (and their proximity to current uses). The aim was to produce an initial list which could then be looked at more closely, to ascertain whether or not any detailed investigation and ultimately, remediation, would be required. It does not necessarily mean that these sites are contaminated, as the previous use may not have caused any contamination, contamination may have been cleaned up but not recorded, or there may not be any contamination linkage to relevant receptors. Equally, there may be contaminative uses of land which have not been recorded by Wycombe District Council (owing to information shortages like the possession of incomplete historic map editions, incomplete evaluation of maps and records which are held, incidents that the Council are not aware of etc).

This initial assessment must be considered as a working document which is under continual review. It is also important to note that the risk categories established by this method are not to be confused with the categories introduced by the 2012 Statutory Guidance.

#### Prioritisation of detailed inspection activity

When we are carrying out detailed inspection of land in accordance with Part 2A, we will seek to give priority to particular areas of land that we consider most likely

to pose the greatest risk to human health or the environment. This will be directed by the initial scoring system described above. In some cases the process of strategic inspection, including prioritisation of detailed inspection activities, may give rise to property blight issues. We will seek to minimise or reduce such potential blight as far as we consider reasonable, including moves by the land owner or other interested party, provided we are satisfied with the robustness of the information.



#### **Detailed inspection**

If we identify land where we consider there is a reasonable possibility that a significant contaminant linkage (as defined) exists, we will inspect the land to obtain sufficient information to decide whether it is contaminated land. The timing of such inspection will be subject to our approach to prioritisation of detailed inspection. However, the rate at which these sites are inspected will be determined by the budgetary and council officer resources available at the time. For this reason, no timetable has been produced.

#### **Funding**

Local authorities are required to investigate potentially contaminated sites in accordance with the Statutory Guidance and, where necessary, at their own expense. Where sufficient evidence is obtained to conclude that sites are Contaminated Land, the "polluter pays" principle will apply, should more investigations, prevention or clean-up ("remediation") be necessary. Where the polluter cannot be found or is otherwise not liable, the current owner/occupier may become liable. Where no responsible person(s) can be found, the local authority may be required to undertake this work at their own expense. Prior to April 2014, local authorities were able to apply for Department for Environment, Food & Rural Affairs (DEFRA) funding from the Contaminated Land Capital Grants Scheme in such situations. However, funding has been reduced in recent years and DEFRA have now ceased supporting these costs altogether. DEFRA have advised that they now expect the vast majority of Contaminated Land to be remediated through the planning process, where (after remediation) as a minimum, land should not be capable of being determined as Contaminated Land under Part 2A. However, the Council still has a statutory duty to investigate and, where necessary, remediate Contaminated Land. Consequently, should any relevant sites now come to the Council's attention, and should investigation and/or remediation by the local authority be required under Part 2A, this will need to be funded entirely from the Council's existing budgets. We may be able to recover some or all of the costs of remediation from the polluter or current owner/occupier of the land, in accordance with the guidance, on a case by case basis and avoiding undue hardship.

We will minimise unnecessary burdens on the taxpayer, businesses and individuals by encouraging voluntary action to deal with land contamination issues as far as reasonable and practicable.

#### **Powers of entry**

We will consult the landowner before inspecting the land unless there is a particular reason why this is not possible. Where the owner refuses access, or the landowner cannot be found, we will consider using statutory powers of entry provided under section 108 of the Environment Act 1995. We will first be satisfied

that there is a reasonable possibility that a significant contaminant linkage may exist on the land. We will not use statutory powers of entry to undertake intrusive investigations, including the taking of sub-surface samples, if:

- We have already been provided with appropriate, detailed information on the condition of the land
- A relevant person offers to provide such information within a reasonable and specified time, and then provides such information within that time.

We will carry out any intrusive investigation in accordance with appropriate good practice and technical procedures for such investigations. Where the land is considered to meet the descriptions of a Special Site, we will, where necessary, authorise a person nominated by the Agency to exercise the powers of entry.

#### Ceasing inspection

If at any stage we consider, on the basis of information obtained from inspection activities, that there is no longer a reasonable possibility that a significant contaminant linkage exists on the land, we will not carry out any further inspection in relation to that linkage and will redirect our efforts to the inspection of other land, in line with our approach to prioritisation.

#### Special sites

Where the Environment Agency carries out an inspection on behalf of Wycombe District Council, our regulatory functions (including the inspection duty and the decision as to whether land is contaminated land) remain our sole responsibility. The Agency should advise us of its findings so that we can carry out these functions.

#### Risk assessment

Part 2A takes a risk-based approach to defining contaminated land. "Risk" means the combination of:

- The likelihood that harm, or pollution of water, will occur as a result of contaminants in, on or under the land; and
- The scale and seriousness of such harm or pollution if it did occur.

All soils contain substances that could be harmful to human or environmental receptors, although in the very large majority of cases the level of risk is likely to be very low. In conducting risk assessment under the Part 2A regime, we will aim to focus on land which might pose an unacceptable risk.

Risk assessments will be based on information which is:

- Scientifically-based;
- Authoritative;
- Relevant to the assessment of risks arising from the presence of contaminants in soil; and
- Appropriate to inform regulatory decisions in accordance with Part 2A and the Statutory Guidance.

#### Current use

Under Part 2A, risks will be considered only in relation to the current use of the land. This includes the future use carried out in accordance with any existing planning permission, when it will be assumed that any remediation which is the subject of a condition or planning obligation will be carried out.

#### **Contaminant linkages**

Under Part 2A, for a relevant risk to exist there needs to be one or more contaminant-pathway-receptor linkages – "contaminant linkage" – by which a relevant receptor might be affected by the contaminants. This means that for a risk to exist there must be contaminants present in, on or under the land in a form and quantity that poses a hazard, and one or more pathways by which they might significantly harm people, the environment, or property; or significantly pollute controlled waters.

- A "contaminant" is a substance which is in, on or under the land and which
  has the potential to cause significant harm to a relevant receptor, or to
  cause significant pollution of controlled waters.
- A "receptor" is something that could be adversely affected by a contaminant, for example a person, an organism, an ecosystem, property, or controlled waters.

 A "pathway" is a route by which a receptor is or might be affected by a contaminant.

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

#### CONTAMINANT → PATHWAY → RECEPTOR

(e.g. LANDFILL GAS → GROUND/STRATA → LOCAL HOUSES)

#### The term "significant"

- "Significant contaminant linkage" means a contaminant linkage which
  gives rise to a level of risk sufficient to justify a piece of land being
  determined as contaminated land.
- "Significant contaminant" means the contaminant which forms part of a significant contaminant linkage.

#### Groups of contaminants

Where we encounter land where risks are presented by groups of substances which are likely to behave in the same manner, we may treat such groups of contaminants as being in effect a single contaminant and multiple contaminant linkages as being in effect a single contaminant linkage. This approach will be scientific and stated clearly in relevant documentation.

#### The process of risk assessment

The process of risk assessment involves understanding the risks presented by land, and the associated uncertainties. This is usually developed and communicated in the form of a "conceptual model" in a staged approach to risk assessment. This often involves a preliminary risk assessment, informed by desk-based study, a site visit and walkover, a generic quantitative risk assessment and various stages of more detailed quantitative risk assessment. The process should normally continue until it is possible for us to decide:

- That there is insufficient evidence that the land might be contaminated land to justify further inspection and assessment; and/or
- Whether or not the land is contaminated land.

Risk assessment will be based on risks that are reasonably likely to exist, not what is hypothetically possible.

#### Using external expertise during risk assessment

In complex cases we may consider it necessary to bring in external expertise. When choosing specialist consultants, we will ensure that they are appropriately qualified and competent to undertake the work.

#### Normal presence of contaminants

The Part 2A regime was introduced to help identify and deal with land which poses unacceptable levels of risk. It is not intended to apply to land with levels of contaminants in soil that are commonplace and widespread (unless there is a particular reason to consider otherwise). Normal presence of contaminants could include those caused by low level diffuse pollution and common human activity other than specific industrial processes, e.g. pollution caused by historic use of leaded petrol and the presence of benzo(a)pyrene from vehicle exhausts, and the spreading of domestic ash in gardens at levels that might reasonably be considered typical.

Land that is at or close to normal levels of particular contaminants will not usually be considered further in relation to the Part 2A regime.

#### Use of generic assessment criteria and other technical tools

We may use appropriate and scientifically robust "generic assessment criteria" (GACs) and other technical tools as screening tools in generic quantitative human health risk assessment, to help us decide when land can be excluded from the need for further inspection and assessment, or when further work may be warranted.

#### Examples of GACs:

Soil Guideline Values (SGVs) produced by the Environment Agency.

Other published GACs produced on similar basis using the Environment Agency's Contaminated Land Exposure Assessment (CLEA) methodology:

- The LQM/CIEH S4ULs for Human Health Risk Assessment. Nathanial, C.P. et al, 2015
- Soil Generic Assessment Criteria for Human Health Risk Assessment. EIC/AGS/CL:AIRE, 2010

The statutory guidance advises us that new technical tools and advice may be developed and used to help us apply the Category 1 - 4 approach in relation to specific substances or situations with respect to human health. The government has also issued a set of guidance documents which the Council has used to aid

identification of industrial processes and potential contaminants - DoE Industry Profiles, 1995.

#### GACs:

- Cautious estimates of levels of contaminants in soil considered to be no or minimal risk to health
- Levels of contamination from which risks are generally well within Category 4
- Indicate when land is very unlikely to be defined as having Significant Possibility Of Serious Harm (SPOSH)
- Not direct indicators that SPOSH exists
- Not screening levels for the boundary between Categories 3 & 4
- Not indicators of levels of contamination above which detailed risk assessment would automatically be required
- Not generic remediation targets under Part 2A or Planning

#### Category 4 screening levels (C4SLs)

Since the publication of the Statutory Guidance, DEFRA have produced Development of Category 4 Screening Levels for Assessment of Land Affected by Contamination - SP1010, 2014. DEFRA consider these to be a simple test for deciding when land is suitable for use and definitely not contaminated land. The C4SLs are stated to be more pragmatic (whilst still strongly precautionary) when compared to existing generic screening levels and could be used as generic screening criteria as part of a Generic Quantitative Risk Assessment (GQRA). However, they do describe a higher level of risk than the currently or previously available SGVs. Only 6 substances (cadmium, benzo(a)pyrene, benzene, arsenic, lead and chromium VI) have been derived for different land uses: "Residential" (with and without home-grown produce), "Allotments", "Commercial" and two alternative types of "Public Open Space".

#### Recognising and dealing with uncertainty

All risk assessments of potentially contaminated land involve uncertainty, for example owing to scientific uncertainty over the effects of substances and the assumptions that lie behind predicting what might happen in the future. The uncertainty underlying risk assessments means there is unlikely to be any single "correct" conclusion on precisely what is the level of risk posed by land, and it is possible that different suitably qualified people could come to different conclusions when presented with the same information. Wycombe District Council will use our judgement to form a reasonable view of what we consider the risks to be on the basis of a robust assessment of available evidence.

#### **Definition of contaminated land**

Part 2A of the 1990 Act defines "contaminated land" and provides guidance on how we should determine which land is contaminated land and which is not.

Relevant sections of the Act include:

- Section 78A(2): "contaminated land" is any land which appears to the local authority in whose area it is situated to be in such a condition, by reason of substances in, on or under the land that (a) significant harm is being caused or there is a significant possibility of such harm being caused; or (b) significant pollution of controlled waters is being caused, or there is a significant possibility of such pollution being caused;
- Section 78A(4): "Harm" means harm to the health of living organisms or other interference with the ecological systems of which they form part and, in the case of man, includes harm to his property.
- Section 78A(5): The questions (a) what harm or pollution of controlled waters is to be regarded as "significant", and (b) whether the possibility of significant harm or of significant pollution of controlled waters being caused is "significant", shall be determined in accordance with guidance issued for the purpose by the Secretary of State.
- Section 78A(6): Provision for different degrees of possibility to be regarded as "significant" (or as not being "significant") in relation to different descriptions of significant harm or of significant pollution.

#### Significant harm to human health

In all cases the harm should be directly attributable to the effects of contaminants in, on or under the land on the body(ies) of the person(s) concerned. Conditions for determining that land is contaminated land on the basis that significant harm is being caused would exist where:

- We have carried out an appropriate, scientific and technical assessment of all the relevant and available evidence; and
- On the basis of that assessment, we are satisfied on the balance of probabilities that significant harm is being caused (i.e. that it is more likely than not that such harm is being caused) by a significant contaminant(s).

The following health effects should always be considered to constitute significant harm to human health: death, life threatening diseases (e.g. cancers), other diseases likely to have serious impacts on health, serious injury\*, birth defects and impairment of reproductive functions.

Other health effects may be considered to constitute significant harm. We will only conclude that harm is significant if we consider that treating the land as contaminated land would be in accordance with the broad objectives of the regime. If we decide that harm is occurring but it is not significant harm, we will consider whether such harm might be relevant to consideration of whether or not the land poses a significant possibility of significant harm (SPOSH).

#### Significant possibility of significant harm to human health

When deciding whether or not SPOSH to human health exists we will:

- 1. First understand the possibility of significant harm
- 2. Then decide whether or not the possibility of significant harm is significant

#### Possibility of significant harm to human health

In assessing the possibility of significant harm to human health from the land and associated issues, we will act in accordance with the Statutory Guidance.

#### This must include:

- The estimated likelihood that significant harm might occur, taking account
  of the current use of the land.
- The estimated impact if the significant harm did occur, i.e. the nature, seriousness and extent of the harm (how many people might suffer it).

## Deciding whether a possibility of significant harm is significant (human health)

In deciding whether the possibility of significant harm being caused is significant, we must decide whether the possibility of significant harm posed by contamination in, on or under the land is sufficiently high that regulatory action should be taken to reduce it, with all that that would entail.

In deciding whether or not land is contaminated land on grounds of significant possibility of significant harm to human health, we will use the categorisations described in the Statutory Guidance. Categories 1 and 2 encompass land which is capable of being determined as contaminated land on grounds of significant possibility of significant harm to human health. Categories 3 and 4 encompass land which is not capable of being determined on such grounds.

#### Category 1: Human health

We will assume that a significant possibility of significant harm exists in any case where we consider there is an unacceptably high probability, supported by robust

science-based evidence, that significant harm would occur if no action is taken to stop it. Land will be deemed to be a Category 1: Human Health case where:

- We are aware that similar land or situations are known, or are strongly suspected to have caused such harm before; or
- We are aware that similar degrees of exposure to the contaminant(s) are known or strongly suspected to have caused such harm before;
- We consider that significant harm may already have been caused by contaminants in, on or under the land, and that there is an unacceptable risk that it might continue or occur again if no action is taken.

#### Category 4: Human health

We will not assume that land poses a significant possibility of significant harm if we consider that there is no risk or that the level of risk posed is low.

We will decide that the land is a Category 4: Human Health case as soon as we consider we have the evidence (at any stage during risk assessment).

The following types of land will be placed into Category 4: Human Health:

- Land where no relevant contaminant linkage has been established.
- Land where there are only normal levels of contaminants in soil.
- Land that has been excluded from the need for further inspection and assessment because contaminant levels do not exceed relevant generic assessment criteria, or relevant technical tools or advice.
- Land where estimated levels of exposure to contaminants in soil are likely
  to form only a small proportion of what a receptor might be exposed to in
  the normal course of their lives.
- Land (other than the types described above) which after a detailed quantitative risk assessment, we are satisfied poses a sufficiently low level of risk.

#### Categories 2 and 3: Human health

For land that cannot be placed into Categories 1 or 4, we will decide whether the land should be placed into either: (a) Category 2: Human Health, in which case the land would be capable of being determined as contaminated land on grounds of significant possibility of significant harm to human health; or (b) Category 3: Human Health, in which case the land would not be capable of being determined on such grounds.

The decision is a positive legal test - the starting assumption will be that land does not pose a significant possibility of significant harm unless there is reason to consider otherwise.

- Category 2: Human Health if there is a strong case for considering that the risks from the land are of sufficient concern that the land poses a significant possibility of significant harm. This may include land where there is little or no direct evidence that similar land, situations or levels of exposure have caused harm before, but nonetheless we consider on the basis of the available evidence, including expert opinion, that there is a strong case for taking action under Part 2A on a precautionary basis.
- Category 3: Human Health the strong case does not exist, and therefore
  the legal test for significant possibility of significant harm is not met. This
  may include land where the risks are not low, but nonetheless we consider
  that regulatory intervention under Part 2A is not warranted. Placing land in
  Category 3 would not stop others, such as the owner or occupier of the
  land from taking action to reduce risks outside of the Part 2A regime if
  they choose. We will consider making available the results of our
  inspection and risk assessment to the owners/occupiers of Category 3
  land.

In making our decision on whether land falls into Category 2 or Category 3, we will first consider our assessment of the possibility of significant harm to human health, including the estimated likelihood of such harm, the estimated impact if it did occur, the timescale over which it might occur, and the levels of certainty attached to these estimates. If we consider, on the basis of this consideration alone, that the strong case does or does not exist, we will make our decision on whether the land falls into Category 2 or Category 3 on this basis, regardless of other factors.

If we cannot make a decision we will consider other relevant factors, including:

- The likely direct and indirect health benefits and impacts of regulatory intervention, e.g. benefits of reducing or removing the risk; risks from contaminants being mobilised during remediation; any indirect impacts such as stress-related health effects.
- Our initial estimate of what remediation would involve; how long it would take; what benefit it would be likely to bring; whether the benefits would outweigh the financial and economic costs; and any impacts on local society or the environment from taking action that we consider to be relevant.

If it is not clear to us that the health benefits of remediation would outweigh the health impacts, we will presume the land falls into Category 3 unless there is strong reason to consider otherwise.

In making our consideration we are not required to make a detailed assessment. For example, the consideration should not necessarily involve quantification of the impacts, particularly if we consider it is not possible or reasonable to do so,

and we are not expected to produce a detailed cost-benefit or sustainability analysis. Rather, we are expected to make a broad consideration of factors we consider relevant to achieving the aims.

If, having taken the above factors into account, we still cannot decide whether or not a significant possibility of significant harm exists, we will conclude that the legal test has not been met and the land will be placed in Category 3.

#### **Expert Panel**

A National Panel of Experts has been set up to support Local Authorities in making decisions on whether land is or is not contaminated within the meaning of Part 2A (i.e. borderline Category 2 or 3 sites). The Panel is made up of contaminated land experts including Local Authorities and the Environment Agency. They act in a voluntary capacity.

# Significant harm and significant possibility of such harm (non-human receptors)

In considering non-human receptors, we will only regard receptors and forms of harm described in Tables 1 and 2 of the Statutory Guidance. In making such decisions we will have close regard to the Statutory Guidance and will only consider determining land as contaminated land if we are satisfied it would be in accordance with the broad aims of the Statutory Guidance. In considering "ecological system effects", we will consult Natural England and have regard to their comments before deciding whether or not to make a determination.

# Significant pollution of controlled waters and significant possibility of such pollution

In establishing whether significant pollution of controlled waters is being caused (where controlled waters are the receptor, not the pathway in the contaminant linkage), or whether there is a significant possibility of such pollution being caused, we will have regard for any technical guidance issued by the Environment Agency. If we consider it likely that land might be contaminated land on such grounds, we will consult the Agency and have strong regard to the Agency's advice.

#### Pollution of controlled waters

Under section 78A(9) of Part 2A the term "pollution of controlled waters" means the entry into controlled waters of any poisonous, noxious or polluting matter or any solid waste matter. The term "controlled waters" in relation to England has the same meaning as in Part 3 of the Water Resources Act 1991, except that "ground waters" does not include waters contained in underground strata but above the saturation zone.

Given that the Part 2A regime seeks to identify and deal with significant pollution (rather than lesser levels of pollution), we will seek to focus on pollution which:

- May be harmful to human health or the quality of aquatic ecosystems or terrestrial ecosystems directly depending on aquatic ecosystems;
- May result in damage to material property; or
- May impair or interfere with amenities and other legitimate uses of the environment.

#### Significant pollution of controlled waters

The following types of pollution will be considered to constitute significant pollution of controlled waters:

- Pollution equivalent to "environmental damage" to surface water or groundwater as defined by The Environmental Damage (Prevention and Remediation) Regulations 2015, but which cannot be dealt with under those Regulations.
- Inputs resulting in deterioration of the quality of water abstracted, or intended to be used in the future, for human consumption such that additional treatment would be required to enable that use.
- A breach of a statutory surface water Environment Quality Standard.
- Input of a substance into groundwater resulting in a significant and sustained upward trend in concentration of contaminants (as defined in Article 2(3) of the Groundwater Daughter Directive (2006/118/EC)).

In some circumstances, we may consider that the following types of pollution may constitute significant pollution:

- Significant concentrations of hazardous substances or non-hazardous pollutants in groundwater; or
- Significant concentrations of priority hazardous substances, priority substances or other specific polluting substances in surface water; at an appropriate, risk-based compliance point. We will only conclude that pollution is significant if we consider that treating the land as contaminated land would be in accordance with the broad objectives of the regime. This will normally mean that we will conclude that less serious forms of pollution are not significant. In such cases we will consult the Environment Agency.

The following types of circumstance will not be considered to be contaminated land on water pollution grounds:

- The fact that substances are merely entering water and none of the conditions for considering that significant pollution is being caused set out above are being met.
- The fact that land is causing a discharge that is not discernible at a location immediately downstream or down-gradient of the land (when compared to upstream or up-gradient concentrations).
- Substances entering water in compliance with a discharge authorised under the Environmental Permitting Regulations.

#### Significant pollution of controlled waters is being caused

In deciding whether significant pollution of controlled waters is being caused, we will consider that this test is only met where we are satisfied that the substances in question are continuing to enter controlled waters; or that they have already entered the waters and are likely to do so again in such a manner that past and likely future entry in effect constitutes ongoing pollution.

Land will not be determined as contaminated land on grounds that significant pollution of controlled waters is being caused where:

- The relevant substance(s) are already present in controlled waters;
- Entry into controlled waters of the substance(s) from land has ceased; and
- It is not likely that further entry will take place.

#### Significant possibility of significant pollution of controlled waters

In deciding whether or not a significant possibility of significant pollution of controlled waters exists, we will first understand the possibility of significant pollution of controlled waters posed by the land, and the levels of certainty/uncertainty attached to that understanding, before we go on to decide whether or not that possibility is significant. The term "possibility of significant pollution of controlled waters" means the estimated likelihood that significant pollution of controlled waters might occur. In assessing the possibility of significant pollution of controlled waters from land, we will act in accordance with the advice on risk assessment in the Statutory Guidance.

To decide that the possibility of significant pollution of controlled waters is significant is a positive legal test - we reasonably need to believe that there is a significant possibility of such pollution, rather than to demonstrate that there is not.

Before making our decision on whether a given possibility of significant pollution of controlled waters is significant, we will consider:

- The estimated likelihood that the potential significant pollution of controlled waters would become manifest; the strength of evidence underlying the estimate; and the level of uncertainty underlying the estimate.
- The estimated impact of the potential significant pollution if it did occur.
   This should include consideration of whether the pollution would be likely to cause a breach of European water legislation, or make a major contribution to such a breach.
- The estimated timescale over which the significant pollution might become manifest.
- Our initial estimate of whether remediation is feasible, and if so what it
  would involve and the extent to which it might provide a solution to the
  problem; how long it would take; what benefit it would be likely to bring;
  and whether the benefits would outweigh the costs and any impacts on
  local society or the environment from taking action.

We will consider these factors in the context of the broad objectives of the regime. We will also consider how the factors interrelate (e.g. likelihood relative to impact). We will then decide which of the following categories the land falls into. Categories 1 and 2 would comprise cases where we consider that a significant possibility of significant pollution of controlled waters exists. Categories 3 and 4 would comprise cases where we will consider that a significant possibility of such pollution does not exist.

- Category 1 (Water) there is a strong and compelling case for considering that a significant possibility of significant pollution of controlled waters exists. In particular this would include cases where there is robust science-based evidence for considering that it is likely that high impact pollution would occur if nothing were done to stop it.
- Category 2 (Water) the strength of evidence to put the land into Category
  1 does not exist but, on the basis of the available scientific evidence and
  expert opinion, we consider that the risks posed by the land are of
  sufficient concern that the land should be considered to pose a significant
  possibility of significant pollution of controlled waters on a precautionary
  basis, with all that this might involve (e.g. likely remediation requirements,
  and the benefits, costs and other impacts of regulatory intervention).
- Category 3 (Water) the tests set out in Categories 1 and 2 are not met, and therefore regulatory intervention under Part 2A is not warranted. This

- category will include land where we consider that it is very unlikely that serious pollution would occur.
- Category 4 (Water) there is no risk, or that the level of risk posed is low.
   In particular, we will consider that this is the case where no contaminant linkage has been established, including water pollution similar to that which might be caused by "background" contamination.

#### Radioactive contamination of land

The regime was modified to include a duty to inspect for radioactive contaminated land (covered by separate Radioactive Contaminated Land Statutory Guidance). We are only required to inspect land for radioactive contamination where we have reasonable grounds (defined in the Statutory Guidance). Once we determine a site as radioactive contaminated land it becomes a 'special site' and the Environment Agency takes over as the



#### **Determination of contaminated land**

#### Deciding that land is not contaminated land - written statements

Where we inspect land that we then consider is not contaminated land (i.e. little or no evidence), we will issue a written statement to that effect (rather than coming to no formal conclusion) to minimise unwarranted blight. The statement will make clear that on the basis of our assessment, we have concluded that the land does not meet the definition of contaminated land under Part 2A. We may choose to qualify our statement (e.g. given that our Part 2A risk assessment may only be relevant to the current use of the land).

The nature of soil contamination means it is never possible to know the exact contamination status of any land with absolute certainty, and that scientific understanding of risks may evolve over time. However, such a lack of certainty will not stop us from deciding that land is not contaminated land. The starting assumption of Part 2A is that land is not contaminated land unless there is reason to consider otherwise.

We will keep a record of our reasons for deciding that land is not contaminated land. We will inform the owners of the land of our conclusion and give them a copy of the written statement. We will also consider informing other interested parties (for example occupiers of the land and owners and occupiers of neighbouring land) and whether to publish the statement. The statement will be issued within a timescale that we consider to be reasonable, having regard to the need to minimise unwarranted burdens to persons likely to be directly affected, in particular the landowner, and occupiers or users of the land where relevant.

#### Determining that land is contaminated land

We have the sole responsibility for determining whether any land appears to be contaminated land. However, in making such decisions we may rely on information or advice provided by another body such as the Environment Agency, or a suitably qualified experienced practitioner appointed for that purpose. Before making any determination, we will have identified one or more significant contaminant linkage(s), and carried out a robust, appropriate, scientific and technical assessment of all the relevant and available evidence. If we consider that conditions for considering land to be contaminated land do not exist we will not decide that the land is contaminated land. In the case of any land which, following determination as contaminated land, would be likely to meet one or more of the descriptions of a "Special Site" set out in the Contaminated Land Regulations 2006, we will consult the Environment Agency before deciding whether or not to determine the land, providing the Agency with a draft record of the determination that we are required to prepare. We will take the Agency's views into full consideration and will strive to ensure we have the Agency's

agreement to our decision (although the decision is for us to make subject to the provisions of Part 2A).

#### The Four Grounds for Determination

- Significant harm is being caused to a human, or relevant nonhuman, 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
- There is a significant possibility of significant pollution of controlled waters being caused

#### For Radioactive Contaminated Land:

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

Physical extent of land to be determined It is for Wycombe District Council to decide the physical extent of land that should be determined. It may not be clear precisely where the boundaries of the contamination lie. In such cases we will use our judgement on the extent of land we might reasonably consider to be contaminated land. We will review our decision on the physical extent of the land to be determined (or that has been determined) if at a later date we become aware of relevant further information. For example this may be the case if, during remediation, it becomes clear that the extent of contamination is significantly greater or less than was thought when the determination was made.

#### Sub-division of land for the purposes of determination

We may sub-divide the relevant land for the purposes of determination by issuing separate determinations for smaller areas of land which form part of a larger area of contaminated land. This will depend on the nature of the contamination, the degree of risk posed, and whether this varies across the land, the nature of the remediation which might be required, the ownership of the land and the likely identity of those who may bear responsibility for the remediation.

#### Making determinations in urgent cases

If we consider there is an urgent need to determine particular land, we will make the determination in a timescale we consider appropriate to the urgency of the situation.

#### Informing interested parties

Before making a determination, we will inform the owners and occupiers of the land and any other person who appears to us to be liable to pay for remediation of our intention to determine the land, unless we consider there is an overriding reason for not doing so. If we determine land as contaminated land, we will give notice of that fact to

- The Environment Agency
- The owner of the land
- Any person who appears to be in occupation of any part of the land
- Each person who appears to be an appropriate person for the purpose of any remediation at the time the determination is made.

#### Postponing determination

We may postpone determination of contaminated land if the land owner or some other person undertakes to deal with the problem without determination, and we are satisfied that the remediation will happen to an appropriate standard and timescale. If we choose to do this, any agreement we enter into will not affect our ability to determine the land in future (e.g. if the person fails to carry out the remediation as agreed). We may postpone determination of contaminated land if a significant contaminant linkage would only exist if the circumstances of the land were to change in the future within the bounds of the current use of the land e.g. if a more sensitive receptor were to move onto the land or a temporarily interrupted pathway were to be reactivated). If we choose to do this, we will keep the status of the land under review and take reasonable measures to ensure that the postponement does not create conditions under which significant risks could go unaddressed in future. Alternatively we may decide to determine the land but postpone remediation.

#### Written record of the determination of contaminated land

We will prepare a written record of any determination that land is contaminated land. The record will identify the location, boundaries and area of the land in question and will be made publicly available. The record will explain why the determination has been made, including: The risk summary - a relevant conceptual model comprising text, plans, cross sections, photographs and tables and a summary of the relevant assessment of this evidence. A summary of why we consider that the requirements of relevant sections of the Statutory Guidance have been satisfied. We will seek to ensure (as far as reasonable) that all aspects of the record of determination are understandable to non-specialists, including affected members of the public.

#### Reconsideration, revocation and variation of determinations

We will reconsider any determination that land is contaminated land if we become aware of further information which we consider significantly alters the basis for our original decision. In such cases we will decide whether to retain, vary or revoke the determination. We will reconsider any determination of contaminated land if remediation action has been taken which, in our view, stops the land being contaminated land. In such cases we will issue a statement to this effect. If we vary or revoke a determination, or issue a statement in accordance with the Statutory Guidance, we will record our reasons for doing so alongside the initial record of determination in a way that ensures the changed status of the land is made clear. If our reconsideration results in relevant documentation, such as a revised determination notice or a statement, copies of this documentation will also be recorded. We will ensure that interested parties are informed of our decisions and the reasons for them.



#### Remediation of contaminated land

Once land has been determined as contaminated land (and where Wycombe District Council is the enforcing authority), we will consider how it should be remediated and, where appropriate, we will issue a remediation notice to require such remediation. Relevant provisions of Part 2A include:

- Section 78A(7) Defines "remediation"
- Section 78E(1) Discusses service of a "remediation notice" on appropriate persons.
- Section 78E(4) Discusses what can reasonably be required by way of a remediation notice, having regard to costs and seriousness of the harm or pollution of controlled waters in question.

#### Remediation techniques

The broad aims of remediation are:

- To remove identified significant contaminant linkages, or permanently to disrupt them to ensure they are no longer significant and that risks are reduced to below an unacceptable level; and/or
- To take reasonable measures to remedy harm or pollution that has been caused by a significant contaminant linkage.

Remediation may involve a range of treatment, assessment and monitoring actions, sometimes with different remediation actions being used in combination or sequentially to secure the overall remediation of the land. In cases where the aim of remediation is to remove or permanently disrupt significant contaminant linkages, remediation treatment should involve demonstrable disruption or removal of the significant contaminant linkage(s) that led to land being determined as contaminated land, in order to reduce or remove unacceptable risks to receptors. This might involve one or more of the following:

- Reducing or treating the contaminant part of the linkage (e.g. physically removing contaminants, treating the soil or water to reduce levels of contaminants, altering the chemical or physical form of the contaminants).
- Breaking, removing or disrupting the pathway parts of the linkage (e.g. removing or reducing the chance of exposure of receptor to contaminants, for example by installing gas membranes, or by sealing land with clay or concrete).
- Protecting or removing the receptor (e.g. changing the land use or restricting access).

Assessment or monitoring actions may also be required as part of remediation.

#### Phased remediation

Remediation may require a phased approach, with different remediation actions being carried out at different times. In some cases it may not be possible or reasonable for a single remediation notice to specify all the remediation actions which might eventually be needed. In such cases we will specify in the notice the remediation action(s) which we consider to be appropriate at the time, and further remediation notices may need to be issued later regarding further phases of action. If a phased approach is taken to remediation, before serving any further remediation notice, we will be satisfied that previous action has not already achieved the remediation of the land (i.e. to a standard to which remediation can reasonably be required, having regard to the advice below), and that further action is still necessary to achieve the remediation of the land in question.

#### Remediation of multiple significant contaminant linkages

Where more than one significant contaminant linkage has been identified on the land, we will consider whether reasonable actions for addressing each linkage individually would result in the optimum approach for achieving the overall remediation of the land. If a combined approach would be more practicable and more cost effective whilst still delivering the same (or a better) overall standard of remediation we will generally favour this approach. However, in cases where more than one party has been found responsible for linkages, we will not impose an approach which is more costly for any responsible party than addressing the linkages separately.

#### Securing remediation without a remediation notice

We cannot serve a remediation notice if any of the following apply:

- There is nothing by way of remediation which could be specified in a remediation notice served on that person;
- We are satisfied that appropriate things are being, or will be, done by way
  of remediation without the service of a remediation notice on that person;
- The person on whom the notice would be served is Wycombe District Council; or
- Wycombe District Council has the power to undertake remediation itself.

We will assume that appropriate measures are being taken if:

- We are satisfied that steps are being taken that are likely to achieve a standard of remediation equal to, or better than, what we would otherwise have specified in a remediation notice.
- We are satisfied that the timescale in which remediation is planned to take place is appropriate.

We will actively consider the merits and likelihood of achieving remediation without recourse to a remediation notice before issuing a remediation notice.

#### Standard of remediation

We may only require (or undertake ourselves) actions in a remediation notice which are reasonable with regard to the cost and the seriousness of the pollution or harm. This requirement is in addition to the broader responsibility on us as a public regulator to act in a reasonable manner. In cases where the aim of remediation is to remove or permanently to disrupt significant contaminant linkages, we will aim to ensure that remediation achieves a standard sufficient to ensure the land no longer poses sufficient risk to qualify as contaminated land. In using powers under Part 2A, we will not require a higher standard of remediation. The appropriate person or some other person might choose to carry out remediation to a higher standard (e.g. to increase the value or utility of the land, or to prepare it for redevelopment) but it will not be required by us.

Where we consider that it is not practicable or reasonable to remediate land to a degree where it stops being contaminated land, we will consider whether it would be reasonable to require remediation to a lesser standard. The broad aim will be to manage or remediate the land in such a way that risks are minimised as far as is reasonably practicable. In cases where the purpose of remediation is to remedy harm or pollution that has already been caused, we will decide what is a suitable standard of remediation having regard to the guidance on reasonableness. In some cases it may be reasonable to require land or waters to be restored to their former state. In other cases it may not be practicable and/or reasonable to do this. In such cases we will consider whether it would be reasonable to require remediation to a lesser standard.

#### Reasonableness of remediation

We may only require remediation action in a remediation notice if we are satisfied that those actions are reasonable. In deciding this, we will consider various factors, having particular regard to:

- Practicability, effectiveness and durability
- Health and environmental impacts of the chosen remedial options
- Financial cost
- The benefits of remediation with regard to the seriousness of the harm or pollution of controlled waters in question

We will regard a remediation action as being reasonable if we are satisfied that the benefits of remediation are likely to outweigh the costs of remediation. In some cases it might be that there is more than one potential approach to remediation that would be reasonable. In such cases we will choose what we consider to be the "best practicable technique" having regard to the factors

above. Unless there are strong grounds to consider otherwise, the best practicable technique in such circumstances is likely to be the technique that achieves the required standard of remediation to the appropriate timescale, whilst imposing the least cost on the persons who will pay for the remediation.

#### Health and environmental impacts of remediation

In considering the costs of remediation and the seriousness of harm or pollution, we will also consider other costs and impacts that may, directly or indirectly, result from remediation. This will include consideration of potential health impacts and environmental impacts of remediation. In considering such impacts we will decide whether or not to describe such costs in terms of monetary value or whether to make a qualitative consideration.

#### Potential health impacts:

- Direct health effects, e.g. resulting from contaminants being mobilised during remediation, and worker safety
- Indirect health effects, e.g. stress-related effects that may be experienced by affected people, particularly local residents

In making this consideration we will also be mindful of the health benefits of remediation and the potential health impacts of not remediating the land. Environmental impacts must not:

- Cause significant risk to water, air, soil and plants and animals
- Cause nuisance through noise or odours
- Adversely affect countryside, places of special interest, buildings of special architectural or historic interest

We will strive to minimise impacts of remediation on health and the environment (and comply with any relevant regimes that might require this, for example the health and safety, planning and environmental permitting regimes). If we consider that health or environmental impacts of a particular remediation approach are likely to outweigh the likely benefits of dealing with the risk posed by the contamination, we will consider whether an alternative approach to remediation is preferable, even if it may deliver a lower standard of remediation than other techniques.

#### **Revision of remediation notices**

We will consider revising a remediation notice if we consider it is reasonable to do so. In particular this would apply to cases where new information comes to light which calls into question the reasonableness of an existing remediation notice. For example, this might be the case where information that comes to light during remediation shows that some remediation actions are no longer

necessary, or that additional or alternative actions are necessary. If we have issued a remediation notice but the person concerned later proposes an alternative remediation scheme, we will consider whether to amend or revoke the remediation notice. It is for us to decide the degree of consideration we give to such a proposal. If we decide to do this, we will be satisfied that the standard of remediation and the timescale in which it would take place are in line with the Statutory Guidance.

#### Verification

Any remedial treatment action should include appropriate verification measures. In arranging for such measures, we will ensure that the person responsible for verification is a suitably qualified experienced practitioner.

#### Liability

The main provisions for the establishment of liability are set out in Part 2A and the statutory guidance. To summarise:

#### Exclusion

Where two or more persons are liable to bear the responsibility for any particular thing by way of remediation, the Statutory Guidance deals with the questions of who should be excluded from liability, and how the cost of each remediation action should be apportioned between those who remain liable after any such exclusion (section 78F(6) and (7) of the 1990 Act).

#### Paying for remediation

We will identify persons responsible for paying for remediation actions. We first look for persons who caused or knowingly permitted each linkage ("Class A" persons). If no Class A persons can be found, we will identify the owners or occupiers of the land ("Class B" persons), although not for pollution of controlled waters where this is the only linkage.

#### Orphan linkage

If no Class A or Class B persons can be found liable for a linkage.

#### Financial circumstances and cost recovery decisions

The financial circumstances of those concerned have no bearing on the application of the procedures for exclusion, apportionment and attribution. The financial circumstances of those concerned are taken into account in the separate consideration under section 78P(2) on hardship and cost recovery. We are prevented from serving a remediation notice if we have the power to carry out remediation ourselves. Instead we would produce and publish a Remediation Statement. We may then either not seek to recover our costs, or seek to recover only a part of our costs.

We will have regard to the Statutory Guidance when making any cost recovery decision and will have regard to the circumstances of each individual case. However, we will have regard to the following general principles:

- We will 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.
- The "polluter pays" principle will be applied: where possible, the costs of remediating pollution will be borne by the polluter.

In general we will seek to recover all of our reasonable costs. However, we will waive or reduce the recovery of costs to the extent that we consider appropriate and reasonable, either:

- To avoid any undue hardship which the recovery may cause to the appropriate person.
- To reflect one or more of the specific considerations set out in the statutory guidance.

In making such decisions, we will bear in mind that recovery is not necessarily an "all or nothing" matter (i.e. where reasonable, appropriate persons will be made to pay part of our costs even if they cannot reasonably be made to pay all of the costs). In deciding how much of our costs we will recover, we will consider whether we could recover more of the costs by deferring recovery and securing them by a charge on the land in question. Such deferral may lead to payment from the appropriate person either in instalments or when the land is next sold. In general, we will expect anyone who is seeking a waiver or reduction in the recovery of remediation costs to present any information needed to support such a request.

In making any cost recovery decision, we will consider any relevant information provided by the appropriate person(s). We will also seek to obtain such information as is reasonable, having regard to:

- Accessibility of the information
- The cost (for any of the parties involved) of obtaining the information
- The likely significance of the information for any decision

We will, in all cases, inform the appropriate person of any cost recovery decisions taken, explaining the reasons for those decisions.

