Contamination, the environment and sustainability
Implications for chartered surveyors and their clients
RICS guidance note
3rd edition
Contamination, the environment and sustainability
Implications for chartered surveyors and their clients

RICS guidance note
3rd edition
# Contents

<table>
<thead>
<tr>
<th>Acknowledgements</th>
<th>v</th>
</tr>
</thead>
<tbody>
<tr>
<td>President's foreword</td>
<td>vi</td>
</tr>
<tr>
<td>RICS guidance notes</td>
<td>01</td>
</tr>
</tbody>
</table>

**Relevance of the Red Book and other RICS guidance**

- The Red Book                                          02
- Other RICS guidance                                   02

## 1 Introduction

1.1 The reader and the context                          03
1.2 The role of the chartered surveyor                  03
1.3 Reasons for this document                           04
1.4 Purpose of this document                            04
1.5 Basis                                               05
1.6 What is contamination?                             05
1.7 Professional indemnity insurance (PII)              05

## 2 Understanding the law

2.1 Introduction to environmental liability             07
2.2 European legislation                                08
2.3 ‘Contaminated land’ under Part 2A of the Environmental Protection Act 1990 08
2.4 Land causing a statutory nuisance                   12
2.5 Other environmental provisions relating to substances in land 13
2.6 Discharges from land and buildings into water      15
2.7 Discharges into air                                 15
2.8 Waste on land and its removal                       15
2.9 Land subject to nature conservation measures        19
2.10 Liability for contaminated land in common law      19
2.11 Understanding the law in respect of property transactions 21
2.12 General pollution insurance cover                  24
2.13 Site-specific environmental liability insurance cover 24

## 3 Identifying possible contamination and environmental features: the surveyor's role

3.1 Introduction                                        25
3.2 General points: contamination                       25
3.3 General points: environmental features              25
3.4 Inspections and property observation checklists      25
3.5 Making appropriate enquiries                        27
3.6 Recommending further investigations                 29
3.7 Reporting                                           29

## 4 Reflecting contaminated land

4.1 Introduction                                        31
4.2 The Red Book requirements                           31
5 Environmental factors that may affect valuations: a summary 34
5.1 Contaminated land 34
5.2 Asbestos 34
5.3 Invasive species 35
5.4 Flooding 35
5.5 High-voltage overhead transmission lines 42
5.6 Telecommunications base stations and telephone masts 43
5.7 Mineral working 43
5.8 Shallow mining subsidence 43
5.9 Natural subsidence risk 44
5.10 Radon-affected areas 44
5.11 Energy Performance Certificates and Display Energy Certificates 44
5.12 Environmental Liability Directive 45
5.13 Ozone-depleting substances (ODS) 45

6 Law of Property Act (LPA) receiverships 46

7 Building surveying 47

8 Commercial property agency 48
8.1 Introduction 48
8.2 Acquisitions 48
8.3 Sales 48
8.4 Precautions to be taken before acquiring ownership of land 49
8.5 Lettings 50

9 Property development 51

10 Property and estate management 52
10.1 Introduction 52
10.2 The leasing and management of industrial buildings 53

11 Risk assessment, site investigations and the services of other professionals 55
11.1 Professional roles 55
11.2 Appropriately qualified experts and their appointment 55
11.3 The examination and assessment of contaminated land: a summary 57
11.4 Risk assessment/further desk study 57
11.5 Site investigations 58
11.6 Site remediation 59
11.7 Land condition records 60
11.8 Land quality statements 61
11.9 Environmental screenings 62
11.10 Sustainability survey 63

12 Reflecting specialists’ reports 65
12.1 Effect on value 65
12.2 Reporting 65

Appendices 66
A Commercial property observation checklist 66
B Rural property observation checklist 68
C Residential property observation checklist 70
D Regulators and regulatory bodies 72
E Environment Agency notice 74
F Contaminated Land Warning Card 75
G Contaminated Land Leaflet 77
Acknowledgements

RICS would like to express sincere thanks to the following for their contributions to this guidance note.

**Lead Author**
Philip Wilbourn BSc C.Env FRICS, is a Chartered Environmental Surveyor formally chair of the Environmental Faculty. He has his own specialist environmental surveying practice covering the whole of the UK, Wilbourn Associates based in Sheffield.

**Contributors**
Anthony Wallis, Chesterton Humberts
Arthur Whatling, Red Book Editor
David Dalby, RICS
Martin Russell-Croucher, RICS
Michael Jayne, School of Property and Construction
Neil Gladwin, Forestry Commission, Scotland
Rebecca Mooney, RICS
Tim Elliott, Elliott Environmental Surveyors
Valerie Fogleman, Stevens & Bolton LLP

All images are © Crown Copyright 2009 unless otherwise stated.

Please note that all maps reproduced in Section 5 are for illustration only and should not be used or reproduced for any other purpose.
President’s foreword

The challenges presented by contaminated land and environmental issues, such as the flood risk caused by climate change, and the need to live in a more sustainable way mean that the demand for best advice has never been more important. Surveyors are uniquely placed to provide this advice to clients in all property sectors.

Contamination, the environment and sustainability – implications for chartered surveyors and their clients aims to support and guide the professional activities both of those who are already highly proficient in this area and also those who are less experienced. Nonetheless, all surveyors must be aware of their professional obligations to help clients with these challenges.

I am grateful for the commitment of those who have produced this guidance note, now in its third edition, which will continue to underpin professional practice. I commend it to both practitioners and clients.

Max Crofts
April 2010
This is an RICS guidance note. It provides advice to members of RICS on aspects of the profession. Where procedures are recommended for specific professional tasks, these are intended to embody ‘best practice’, that is, procedures which in the opinion of RICS meet a high standard of professional competence.

Members are not required to follow the advice and recommendations contained in this guidance note. They should, however, note the following points.

When an allegation of professional negligence is made against a surveyor, the court is likely to take account of the contents of any relevant guidance notes published by RICS in deciding whether or not the surveyor has acted with reasonable competence.

In the opinion of RICS, a member conforming to the practices recommended in this guidance note should have at least a partial defence to an allegation of negligence by virtue of having followed those practices. However, members have the responsibility of deciding when it is appropriate to follow the guidance. If it is followed in an inappropriate case, the member will not be exonerated merely because the recommendations were found in an RICS guidance note.

On the other hand, it does not follow that a member will be adjudged negligent if he or she has not followed the practices recommended in this guidance note. It is for each individual chartered surveyor to decide on the appropriate procedure to follow in any professional task. However, where members depart from the good practice recommended in this guidance note, they should do so only for good reason. In the event of litigation, the court may require them to explain why they decided not to adopt the recommended practice.

In addition, guidance notes are relevant to professional competence in that each surveyor should be up to date and should have informed him or herself of guidance notes within a reasonable time of their promulgation.
Relevance of the *Red Book* and other RICS guidance

**The Red Book**

Part 4 of this document includes references to the *RICS Valuation Standards* (the ‘*Red Book*’). These Standards contain practice statements, appendices and guidance notes.

RICS bye-law 19(5) requires its members to comply with all relevant practice statements approved and published by, or on behalf of, the Governing Council or a National Association. Compliance with the *Red Book* is therefore mandatory for members of RICS and also members of the Institute of Revenues, Rating and Valuation (IRRV).

The practice statements apply to valuations and to assessments of worth. They do not apply to valuations for certain defined purposes, which are: advice given during the course of litigation, arbitrations and similar disputes; advice given during negotiations; internal valuations; certain agency or brokerage work; and development schemes.

Where the valuer considers that there are special circumstances that make it inappropriate or impractical for a valuation to be made wholly in accordance with the relevant practice statements within the Standards, those circumstances must be confirmed and agreed with the client as specific departures before reporting, and a clear statement of any departures, together with details of, and reasons for them, and the client’s agreement, must be given in the report.

**Other RICS guidance**

This guidance note also makes reference to other RICS guidance notes and material. For information on the relevance of guidance notes to members, see the preceding section, entitled ‘RICS guidance notes’. It is important that the property professional understands the relevance of these notes, and of other material, in the context in which they are referred to.
1 Introduction

1.1 The reader and the context

1.1.1 Most chartered surveyors do not have the specialist skills required to investigate contamination. It is primarily these surveyors that this document is aimed at. Whether acting for clients, employers or in the public interest, surveyors cannot ignore the possible existence of contamination, the effects of contamination on value, the management of land and property, land use, development and the re-use of land and buildings; and the obligations on surveyors that arise from this duty.

1.1.2 This guidance note replaces earlier versions of ‘Contamination and environmental matters – their implications for property professionals’. It has been updated in response to the continuing evolution of environmental knowledge and legislation in the UK, together with the resultant changes to professional obligations placed upon surveyors. It has also been influenced by the recent revision of the RICS Valuation Standards (the ‘Red Book’) which includes UKGN1: Inspections and material considerations as part of the valuation process.

1.1.3 Awareness of how society’s activities impact on the environment has risen substantially since this guidance note was first published in 1997. Public policy increasingly reflects the view that today’s society has obligations to that of the future. The development of information technology, with much greater access to the internet, has fuelled this awareness, by allowing the public to obtain more information about where they live and the potential for contamination in their area, and how environmental impacts affect their lives.

1.1.4 Businesses are now more aware that new environmental laws and related regulation can impact on them. When they own, occupy, purchase, sell, let or carry out works on property, increasingly they are obliged to reflect environmental obligations within their business practices. The need to be environmentally aware has been augmented by the advent of the theme of corporate social responsibility among businesses. Furthermore, businesses want to know how environmental factors will affect their business in the future, for example where the cost of energy usage and the impact of flood risk associated with the availability of insurance may have an impact on business viability.

1.1.5 The professional institutions also recognise the need for consumers and businesses to have access to information about contamination, environmental matters, and energy performance when any transaction is contemplated.

1.1.6 In 2008, Parliament passed the Climate Change Act. This is ground breaking legislation, affecting business both large and small. The Act is designed to create a framework to reduce the greenhouse gas emissions of the United Kingdom in excess of the European Union agreed target of 20 per cent by 2020. The ambition of Government is to reduce the United Kingdom’s emissions by 34 per cent by 2020 and by 80 per cent by 2050. The first stage in this process is the introduction of the Carbon Reduction Committee (CRC) which is effective from 1 April 2010. This has significant ramifications for landlords, tenants and the investment market. The operational elements of the CRC are yet to be fully appraised and will be included in subsequent editions of this guidance note.

1.1.7 In summary, transactions, land and property values, the returns offered by developments, and investments, can all be affected by contamination, environmental matters, and energy performance.

1.2 The role of the chartered surveyor

1.2.1 Most chartered surveyors will not have the competence (or the professional indemnity insurance (PII cover)) to undertake all aspects of investigation testing analysis involved in assessment of contaminated land and other environmental matters. The added value of the chartered surveyor in this type of situation is his or her ability to co-ordinate, draw upon advice provided by other experts and apply this to a property activity. RICS has acknowledged that there are surveyors with sufficient experience and expertise and they are known as chartered environmental surveyors.

1.2.2 In June 2007 RICS published Surveying sustainably, which is aimed at surveyors both in practice and in training to show how the overarching concept of sustainability relates to the entire range of practice disciplines that make up the surveying profession. Although it is not comprehensive or legally binding guidance, it is nonetheless an important point of reference that provides further sources of information.
1.2.3 Contamination and environmental considerations form only part of the three pillar model of sustainability. Nonetheless, legislation will increasingly require surveyors to consider sustainability. There will also be increasing demand for developers to match demand for sustainability from the end consumer. This guidance note should be seen as a valuable contribution to delivering sustainable development, and as such the surveyor should:

- be aware of the environmental interactions between humans, animals, plants, air, soil, water, property and buildings;
- use the assessment of environmental risk as an aid to professional judgment, advising the client to seek specialist advice where appropriate and, possibly, pointing them to that source of advice, where known;
- seek to achieve the best practical environmental results, whilst maximising commercial outcomes;
- keep up-to-date with continuing professional education and training, to ensure awareness of current and potential criminal and civil law relating to the environment, and a potential impact of this on property advice; and
- be aware as to how environmental matters interact within the government’s core strategy areas of sustainable consumption and production, preventing climate change, promoting the protection of our valuable natural resources and ensuring that we live in sustainable communities.

1.3 Reasons for this document

1.3.1 Advice is needed by all types of owners, occupiers, lenders, investors, and public and private bodies as to:

- their environmental duties and liabilities;
- how to determine and quantify liability;
- the implications for asset management arising from any actual or potential liabilities;
- who to look to for advice and how advisors should be appointed;
- the steps to take to minimise or eliminate liability; and
- the likelihood of ongoing, new or potential liability.

1.3.2 Surveyors are constantly approached for advice in this area and are frequently involved in decisions on these issues. They need to have an understanding of the interaction of the various influences on the environment, as well as a sound knowledge of the economic realities of managing, developing and carrying out transactions in property.

1.4 Purpose of this document

1.4.1 This document is intended to provide guidance, information and assistance to the majority of chartered surveyors – those who are not specialists in the investigation of contamination and environmental matters or in the preparation of land quality statements, environmental screenings, sustainability surveys or other reports (see Section 11.8 onwards). Its aims are to:

- define the professional responsibilities of surveyors (where not defined by specific instructions), having regard to the current law and the limitations of professional indemnity insurance (PII);
- provide a guide to the identification of possible contamination and environmental matters, and to the investigations appropriate to this;
- identify aspects of the relevant legal duties arising from contamination and environmental matters;
- outline the roles of other professionals, and assist surveyors to brief (or help their clients to brief or instruct) chartered environmental surveyors or environmental specialists to undertake appropriate investigations;
- help surveyors to consider specialists’ reports, and to appreciate the respective risk categories; and
- recommend standard reporting phrases for use by surveyors in particular circumstances.

1.5 Basis

1.5.1 This document is written on the basis of the law in England and Wales, and other information and circumstances, as at March 2010. However, regional differences have been included in the narrative. This document supersedes all earlier editions of this guidance note.
1.6 What is contamination?

1.6.1 Man-made contamination is usually the result of industrial activity that has resulted in spillage, leaks or deposits from air emissions and wastes. Activities that may cause significant contamination include those carried out in gasworks, chemical plants, oil refineries, tanneries and scrapyards, and in other industrial, processing and disposal activities. Such contamination may result from poor business practices and procedures.

1.6.2 Agricultural operations are a frequent, although less obvious, source of contamination. Almost all business activity has the potential to cause contamination to some degree. The built environment consumes significant amounts of carbon, but the rural environment is nevertheless a major user of fossil fuels.

1.6.3 It is important to note that contamination can also occur naturally in soil, in the form of heavy metals (which can become concentrated as a result of weathering), naturally occurring high levels of chemicals, radon gas (primarily in granite areas), and methane gas (caused by organic decay).

1.6.4 Contamination may spread from other land by seepage or through groundwater, or by subterranean and surface activities, for example the actions of wild animals and birds.

1.6.5 In its simplest definition, contaminated land is synonymous with polluted land. Such land may contravene environmental law in a number of ways. It may, for instance:

- give rise to a statutory nuisance;
- contain unlawfully deposited, regulated waste;
- cause pollution of controlled waters;
- contravene other environmental regulations;
- give rise to private nuisances at common law.

1.6.6 The law regarding contaminated land is dealt with in Part 2 of this guidance.

1.6.7 For the purposes of professional practice, contaminated land can be considered to be land that has substances in, on or under the land that are causing or may cause harm, pollution, nuisance, or interference with the rights of other persons, leading to a reasonable possibility that expenditure or criminal penalties may be imposed on the owner or occupier (including possibly former owners or occupiers of that land), or which may limit the potential range of uses of that land, or, where relevant, may increase the cost of developing that land for particular purposes.

1.7 Professional indemnity insurance (PII)

1.7.1 Early in 1992, as a consequence of claims arising from environmental damage in the US, insurers and underwriters in the British market became alarmed at the possible extent of their exposure to environmental losses. Their alarm was aggravated by uncertainties concerning allocation of ultimate responsibility for the remediation of contaminated land, the lack of environmental standards and the possibility of further legislative proposals from the European Commission. Whilst environmental standards now exist they continue to tighten and legislation from the European Commission continues to develop.

1.7.2 As a result, most professional insurance policy wordings were amended to exclude liability for losses arising from pollution or contamination. In view of the ‘claims made’ nature of professional indemnity insurance (PII), the effect was immediate and applied to claims notified subsequently, notwithstanding that work may have been performed before the removal of cover. A ‘pollution exclusion’ was incorporated in the RICS PII policy wording on 1 January 1994 and became effective for renewals after that date.

1.7.3 Since 1 January 1986 RICS has required its members to maintain PII for claims arising from both breaches of contract and professional duties. RICS sets down minimum requirements for the level of indemnity, maximum limits of uninsured excess and requirements for the quality of cover. It also prescribes policy wording, which sets a standard for the insurance market and which is adopted verbatim by many insurers and underwriters.
1.7.4 The extent of the pollution and contamination exclusion in the RICS policy wording is wide. It reads:

‘Any CLAIM arising directly or indirectly from POLLUTION. Subject to the provisos below, this exclusion shall not apply to any such CLAIM caused by a negligent act, negligent error or negligent omission in the conduct of PROFESSIONAL BUSINESS.

Provided always that

19.1 such CLAIM is

a. first made against the INSURED and/or

b. arises out of any CIRCUMSTANCE(S) which the INSURED shall first notify during the POLICY PERIOD.

19.2 INSURERS shall not be liable for any such CLAIM directly or indirectly resulting from ENVIRONMENTAL AUDITS carried out by the INSURED

19.3 Save as set out at clause 19.4 of this Section, the maximum amount payable in the aggregate in the POLICY PERIOD by INSURERS in respect of any such CLAIMS, any claimant’s costs and any DEFENCE COSTS shall not exceed the INDEMNITY LIMIT FOR POLLUTION. The INDEMNITY LIMIT FOR POLLUTION is not additional to and shall not increase the INDEMNITY LIMIT FOR CLAIMS.

19.4 Where such CLAIM arises from the INSURED’S negligent structural design or specification or failure to report a structural defect in a property and relates solely to the cost of re-designing, re-specifying, remedying and/or rectifying the defective structure then the maximum indemnity available to the INSURED in respect of each CLAIM or any SERIES OF CLAIMS shall not exceed the INDEMNITY LIMIT FOR CLAIMS.

For the purposes of this exclusion only asbestos is deemed not to be a contaminant or a pollutant.’

1.7.5 As PII is arranged on a ‘claims made’ basis, claims to be met must be made against the policy in force in the insurance year when the claim is made or in which a circumstance that could lead to a claim is notified. Surveyors must insure for their own protection, as well as to meet RICS’ bye-law and regulation requirements. They must also ensure that work undertaken by them, which may relate to contaminated land and/or environmental matters, falls within the scope of their PII policies. If this is not the case, they should either adopt the recommended appropriate caveats or decline to carry out the work.

1.7.6 However, RICS does not consider that resort to caveats intended completely to exclude compliance with professional duties is likely to be a wholly reliable (or indeed professionally acceptable) method of avoiding claims that may fall within the policy wording of the pollution exclusion.

1.7.7 The situation is not entirely negative. Underwriters and insurers remain willing to consider cover on a broader basis in respect of pollution and contamination-related claims for surveyors who can demonstrate special skills and expertise. Nevertheless, this cover remains limited and is subject to an aggregate level of indemnity, high excesses and additional premiums.

1.7.8 Following the implementation of the contaminated land provisions contained in Part 2A of the Environmental Protection Act 1990 and other environmental legislation (see Part 2 of this guidance note), RICS has taken a lead in seeking to persuade underwriters and insurers to adopt a more positive attitude towards providing professional cover against claims arising from environmental liability. It is hoped that the issue of this guidance and information may help this cause, by providing a means of defining professional obligations by reference to clear and simple procedures, considered to be within the reasonable competence of surveyors and to be achievable in the course of normal professional engagements.

1.7.9 While uncertainty remains and PII cover is restricted, surveyors should consider taking steps to limit their exposure to pollution and contamination claims by agreeing, after taking legal advice, on fixed monetary limits to claims arising from this source in their terms of engagement and contracts.

1.7.10 It should be remembered that legal liabilities are imposed upon surveyors in respect of environmental matters, irrespective of the wording of their PII cover. These include liabilities in tort as well as certain aspects covered in Part 2 of this note, which follows.

1.7.11 Overall, surveyors are reminded of the need to comply with current RICS professional requirements and guidance dealing with areas of work where pollution or contamination issues may arise.
2 Understanding the law

2.1 Introduction to environmental liability

2.1.1 There is increasing awareness in business and generally of the considerable scope of current and likely future legislation designed to protect people and the environment. With this comes recognition of the greater potential liability to which businesses at large are exposed. These liabilities may arise, for example, from the processes carried out by landowners or occupiers, or may relate to an integral part of a building’s structure, or may occur because of historic pollution in, on or under land.

2.1.2 Environmental law has developed rapidly and has moved far beyond its origins in public health and nuisance, to a wide-ranging concern for the quality of the environmental media of air, water and land, and for the protection of animal and plant species. Land is a major repository for many pollutants within the larger environment, and it is essential that those concerned with property are aware of the impact of environmental law and the measures the legislation requires to be taken.

2.1.3 The legal system of the UK derives from legislation by Parliament and common law established by the courts in individual cases. Each branch of the law influences and affects the others. For instance, the interpretation of legislation often depends on rulings by the courts, while statute law may replace parts of common law. Although current environmental law is largely a product of legislation, the common law still plays an important role.

2.1.4 In general, environmental law operates either by imposing specific duties on operators of particular activities and processes, generally as the terms and conditions of environmental permits, or by providing certain powers to regulatory authorities. Legal obligations may also arise contractually through agreements between private parties and such parties and planning authorities.

2.1.5 The application of environmental law gives rise to liabilities for the owners or occupiers of property, which may be:

- punitive – fines or imprisonment as a result of breaches of environmental legislation; or
- financial – liability for costs or damages or for environmental remediation.

2.1.6 Where an environmental liability exists, it may:

- require urgent remediation at considerable cost;
- have effects on business and efficiency;
- expose the present and past owner or occupier to criminal and/or civil proceedings;
- affect the underlying asset value of a property, including that used for loan security and balance-sheet purposes;
- prejudice the use of the site for some new purpose or increase the development costs; or
- give rise to concern for the health and welfare of on-site staff, contractors, visitors and neighbours.

2.1.7 Environmental law also gives rise to liabilities for property professionals advising owners or occupiers of property, particularly in the event that the advice results in an offence, through damage to the environment, for which they may find themselves personally liable.
2.1.8 In January 2003 the Environment Agency successfully prosecuted a surveyor under s. 33 of the Environmental Protection Act 1990. His actions had given rise to the illegal depositing of asbestos waste in the ground without a waste management licence. The surveyor pleaded guilty and was ordered to pay a total of £3,000 in fines and costs. The following information was placed on the Environment Agency’s website in February 2003:

‘The crime came to light when the Environment Agency received a complaint from an anonymous witness that a considerable amount of asbestos roofing had been buried under rubble to form a hardstanding area on the estate during a refurbishment of some of the buildings.

Samples were taken by Agency officers in the hardstanding area. Two of five samples contained 100 times the legal limit for white or blue asbestos; the remaining three held ten times the legal threshold for the substance.

The court was told of the dangers associated with exposure to all types of asbestos, and in particular how blue asbestos can cause mesothelioma, a fatal form of cancer.

[The surveyor] admitted that he had made the decision to bury the asbestos material against his better judgment due to the pressure he had been feeling at work. He also stated that he had not believed the roofing material contained asbestos when he gave instructions for it to be buried…

[The surveyor] was fined £1500 for disposing of the asbestos and ordered to pay the Agency £1500 in costs. The court gave credit to the defendant for his guilty plea and cooperation with the Agency throughout its investigation.’

(Copyright © Environment Agency)

2.2 European legislation

2.2.1 The vast majority of the most significant environmental legislation introduced in the UK over the last 20 years has resulted from European Union directives. The general method of introducing EU environmental legislation is for Defra (or another government department) to propose secondary legislation that is then, after public consultation, laid before Parliament for enactment under the negative resolution procedure. Under the European Communities Act 1972, the UK government can enact such legislation without enacting statutes to introduce the legislation into domestic law, provided that the legislation does not go beyond the extent of the Directive. Well over 80 per cent of environmental law in the UK is now derived from EU law.

2.3 ‘Contaminated land’ under Part 2A of the Environmental Protection Act 1990

2.3.2 Part 2A of the 1990 Act sets out for the first time a statutory definition of ‘contaminated land’. It is defined in s. 78A(2) as being:

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

a. significant harm is being caused or there is a significant possibility of such harm being caused; or

b. pollution of controlled waters is being, or is likely to be, caused.’

In respect of radioactive contamination (to which Part 2A has applied since 2006), ‘contaminated land’ is defined by s. 78A(2) (as modified by the Radioactive Contaminated Land (Modification of Enactments) (England) Regulations 2006 (SI 2006/1379, as amended) to mean:

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

a. harm is being caused; or

b. there is a significant possibility of such harm being caused’.

2.3.3 The key issue in determining whether contaminated land is present is whether ‘harm’ is being caused. This is defined in s. 78A(4) of the Environmental Protection Act 1990 as being:

‘harm to the health of living organisms or other interference with ecological systems of which they form part and, in the case of man, includes harm to his property’.

2.3.4 The definition of ‘contaminated land’ includes the notion of the ‘significant possibility’ of ‘significant harm’ being caused. There is a ‘significant possibility’ of such harm occurring if the following occur:

• effects to human health through ingestion of a contaminant, resulting in an unacceptable intake, with such risk to be assessed on the basis of the toxicological property of that pollutant;

• all other effects to human health (particularly by way of explosion or fire) if the probability of the occurrence of such harm is unacceptable, based on the type of pollutant linkage (see below) or the type of significant harm;

• all defects in the ecological system, if significant harm is more likely than not to result from the pollution linkage, or there is the reasonable possibility of such harm being caused, and, if this harm occurred, if it would result in damage to features of special interest;

• all effects to animals and crops;

• all effects to buildings, if the significant harm is more likely than not to occur during the expected economic life of the building, where the building is affected in whole or parts.

2.3.5 This definition establishes the principle of a ‘pollutant linkage’. The three elements of this are the source, pathway and receptor (or target). Where there is such a linkage, the contaminant in question is called a ‘pollutant’.

2.3.6 The ‘source’ is the contaminant or potential pollutant (i.e., a substance that is potentially hazardous). Such substances include hazardous gases, various compounds in liquid or solid form, and the by-products of radioactive decay. Harm generally occurs where such substances encounter vulnerable ‘receivers’ as a result of ingestion, inhalation, or skin contact in the case of humans.

2.3.7 Many contaminants or pollutants have the potential to cause harm, depending upon the precise circumstances in which the source is found. For instance acids, carefully stored with controlled access, have a low potential risk, but a high potential for harm in less secure environments. Conversely, water, under high pressure or temperature, has a high potential for harm, yet the same substance in its natural state offers little potential for harm.

2.3.8 The term ‘receiver’ (or ‘target’) is used for a subject vulnerable to contamination. Annex 3 of the statutory guidance sets out the receptors as: human beings, designated ecological systems, property in the form of crops, produce, livestock, other owned or domesticated animals, wild animals that are the subject of shooting or fishing rights, and buildings; and ‘controlled water’, that is, surface water, coastal water and groundwater. For most risk assessments, there may be a number of potential receptors: for example, in the case of a building development, buildings and their human inhabitants may each constitute receptors – with a need to protect both of these.
2.3.9 The ‘pathway’ is the route or routes by which a contaminant can affect a receptor. This may be through air, water or the ground. Whether a particular substance is able to reach a receptor depends on the characteristics of the pathway. Site-specific characteristics influence the potential for the migration of contaminants in a site, whether through soil or air. Clay substrata, for example, may prevent migration of a potentially harmful substance to a water abstraction borehole. Elsewhere, the acidity of a particular soil may affect the solubility of contaminating substances, and therefore the potential for them to reach a receptor. The ability of a contaminating substance to migrate will therefore differ from site to site. Note also that a substance with the potential to contaminate need not follow a standard route, to cause harm.

2.3.10 Examples of hazards, pathways and receptors are shown in Figure 1. The figure shows that on occasions, the direction of ‘travel’ is sometimes reversed: harm may equally occur as a result of a receptor travelling to a source, as opposed to the contaminant finding its way — for example, when a person disturbs a contaminant in land.

2.3.11 Local authorities are required to undertake investigations of their areas to ascertain whether or not land is ‘contaminated land’. They are required to take into account:

- the types of receptor to which ‘significant harm’ may be caused;
- the degree or nature of harm to each of these receptors that might constitute significant harm; and
- for each receptor, what would constitute a ‘significant possibility’ of the significant harm being caused.

![Figure 1: Examples of hazards, pathways and receptors](source: Contaminated Land, Investigation, assessment and remediation (Institution of Civil Engineers, London, 1994))
2.3.12 Where a local authority makes a determination that land is ‘contaminated land’ according to Part 2A of the 1990 Act, it has a statutory duty to ensure that it is remediated. Part 2A defines remediation in s. 78A(7) as:

\[ a. \] the doing of anything for the purpose of assessing the condition of:

\[ i. \] the contaminated land in question;
\[ ii. \] any controlled waters affected by that land; or
\[ iii. \] any land adjoining or adjacent to that land;

\[ b. \] the doing of any works, the carrying out of any operations, or the taking of any steps in relation to any such land or waters for the purpose

\[ i. \] of preventing or minimising or remedying or mitigating the effects of any significant harm, or any pollution of controlled waters, by reason of which the contaminated land is such land; or
\[ ii. \] of restoring the land or waters to their former state; or
\[ iii. \] the making of subsequent inspections from time to time for the purpose of keeping under review the condition of the land or waters…

2.3.13 Legal and financial responsibility for the remediation of land which, in the opinion of the local authority, is contaminated, falls either on a ‘Class A’ appropriate person or a ‘Class B’ appropriate person. A ‘Class A’ person under Part 2A of the 1990 Act is a person who has ‘caused or knowingly permitted the pollution to be in, on or under the land’. A key principle of both EU and UK law is that the ‘polluter pays’. The purpose of defining a ‘Class A’ appropriate person is to ensure that those who are responsible for environmental damage are held liable for any clean-up of the land.

2.3.14 However, as the UK is the oldest industrialised society in the world, it may not always be possible, after ‘reasonable’ inquiry, to find the polluter. In these instances, the ‘owner’ or ‘occupier’ of the land will be the person liable. He or she will be known as a ‘Class B’ person, under Part 2A of the 1990 Act. An ‘owner’ in this instance is defined in s. 78A(9) of the Act in the following terms:

‘a person (other than a mortgagee not in possession) who, whether in his own right or as trustee for any other person, is entitled to receive the rack rent of the land or, where the land is not let at a rack rent, would be so entitled if it were so let…’

2.3.15 Banks, provided that they are not a mortgagee in possession, are excluded from liability as an ‘owner’ under Part 2A. However many financial institutions, including banks, and notably pension funds, executors of estates, and charities, act as ‘trustees’. In these circumstances, they will be treated as ‘owners’ for the purposes of the 1990 Act. Surveyors should be aware of these important distinctions when valuing the interests of the respective parties in land and buildings. Furthermore, a trustee will have wider obligations to protect the beneficiaries of any trust, and more, not less, investigation will be demanded of the chartered surveyor who is retained as an advisor.

2.3.16 Part 2A of the 1990 Act, together with the regulations and statutory guidance are complex. A series of six exclusion tests (discussed below) is applied to exclude various Class A persons from liability; one exclusion test applies to Class B persons. Attribution, apportionment and hardship criteria may also apply.

2.3.17 The application of Part 2A was illustrated in the case of Circular Facilities (London) Ltd v Sevenoaks District Council [2005] EWHC 865. Land containing decaying organic matter approximately three metres below ground level had been developed for housing, with the result that there was a significant possibility of significant harm to residents of asphyxiation from carbon dioxide, and a significant possibility of significant harm to the houses due to the explosive properties of methane. The magistrates’ court concluded that the developer had ‘knowingly permitted’ the continued presence of the decaying matter and was thus a Class A person, even though a previous owner of the land had placed the matter in the pits. The court had applied the sixth exclusion test to exclude the former owner, due to the developer having introduced the houses and people to the site. The High Court ordered a retrial as to whether the developer had, in fact, known about the presence of the decaying matter. The case settled shortly before a hearing in the Court of Appeal.

2.3.18 A landmark case on Part 2A is R. (on the application of National Grid Gas PLC formerly Transco) v the Environment Agency [2006] EWHC 1083, which concerned whether National Grid Gas was liable for the acts of former gas companies in Bawtry, a small village south of Doncaster in South Yorkshire.
2.3.19 The Bawtry and District Gas Company had purchased land in South Yorkshire in 1912 and constructed a gasworks on it. That company was amalgamated with South Yorkshire and Derbyshire Gas Company in 1931. Although it was not possible to be absolutely certain when the pollution occurred, these two private companies apparently polluted the site. The production of coal gas leaves residues, including coal tar, that must be disposed of. The main means of disposal in the past was burying the coal tar in containers. One place where it was buried was at a property in Bawtry, which now comprises of 11 residential dwelling houses. In the opinion of the Environment Agency the presence of the coal tar beneath these properties gave rise to a significant possibility of significant harm to human health. It was as a result, the Environment Agency carried out works to remove the contamination, at a cost of approximately £66,000 per house. The Agency then sought to recover these costs from the appropriate person within the meaning of s. 78F of the Environmental Protection Act 1990.

2.3.20 The Environment Agency’s argument was that the successor in title of the Bawtry and District Gas Company, National Grid Gas PLC, was an appropriate person who caused or knowingly permitted the substances, by reason of which the land in question was contaminated, by virtue of substances in on or under that land. The Environment Agency argued that there was a direct link between the activities of the Bawtry and District Gas Company and its modern corporate privatised utilities.

2.3.21 Their Lordships dismissed both arguments since, in their opinion, the first ‘port of call’ for the Environment Agency should be to seek to recover remedial costs from the original polluter, i.e. the person who originally caused the pollution. If that was not possible, then those who knowingly permitted the pollution to remain on site would be liable. National Grid was described as an entity that ‘neither caused nor knowingly permitted the coal tar to be buried at the Bawtry site’. Indeed, ‘very careful statutory language would be needed to impose on a company innocent of any polluting activity liable to pay for works to remediate pollution caused by others to land they had never owned or had an interest in it’. Lord Neuberger described the Environment Agency’s arguments as giving a ‘very indeed artificially, extended meaning’ to the concept of a ‘polluter’ under the 1990 Act. The Bawtry site had been sold for residential property development long before the privatisation of the gas industry.

2.3.22 The implications for property developers will be of concern, since they may find themselves liable for the whole burden of liabilities in cases where the original polluters cannot be found because, for example, the company was dissolved many years before. The further implication is that there are significant ramifications for owners and occupiers as being potentially appropriate persons under the Act. The National Grid Gas judgment clarifies those who may be responsible for remediating contamination in the future. It may well be that the burden has to be borne by ‘innocent parties’ such as homeowners or business occupiers. The Environment Agency had decided that it would not require the owners of the 11 houses to bear the costs of remediating the land, on the basis of hardship. Surveyors should note that the interpretation of the Environment Agency, the Scottish Environmental Protection Agency or other public bodies cannot necessarily be relied upon.

2.4 Land causing a statutory nuisance

2.4.1 Statutory nuisances are defined in s. 79 of the Environmental Protection Act 1990 under a number of heads, including:

‘(1) Any premises in such a state as to be prejudicial to health or a nuisance.’

2.4.2 Section 79 covers a multitude of environmental problems, including noise, the emission of dust and gases, and general nuisance arising from site operations. Land containing contaminants that are a danger to health, or that cause odours or other unacceptable effects, will give rise to a potential statutory nuisance.

2.4.3 Statutory nuisances are normally investigated by local authority environmental health officers, who have powers of entry and acquisition of information. Where the local authority is satisfied that a statutory nuisance exists, or is likely to recur, it is under a duty to serve an abatement notice on the owner or occupier of the premises. There is no residual discretion to ignore the problem, for political or other reasons. An abatement notice may require the execution of works or other action to prevent or restrict the occurrence of the nuisance. The 1990 Act does not define the word ‘owner’ in the context of the service of an abatement notice on the owner or occupier of premises. Non-compliance with an abatement notice is a criminal offence. Alternatively, enforcement action may take place by way of injunction.
2.4.4 Under s. 82(1) of the *Environmental Protection Act* 1990, private individuals with a sufficient interest may take action in the court to obtain an abatement order in respect of a statutory nuisance, usually in cases where the local authority has refused to act.

2.4.5 The use of statutory nuisance powers under ss. 79–82 of the *Environmental Protection Act* 1990 was replaced in respect of remediating contaminated land by the new contaminated land provisions of s. 57 of the *Environment Act* 1995 (inserted into the 1990 Act as Part 3).

2.4.6 Schedule 22 (paragraph 89) of the 1995 Act provides that nothing can be a statutory nuisance if it consists of land in a ‘contaminated state’. It should be noted that this definition is wider than the definition of ‘contaminated land’ under Part 2A referred to above.

2.5 Other environmental provisions relating to substances in land

2.5.1 Other legislation may be relevant with regard to specific environmental hazards found on land. Examples include:

- The *Radioactive Substances Act* 1993, which controls the keeping, use, accumulation and disposal of radioactive materials and waste, and sets out a system for authorisation and registration administered by the Environment Agency. Breaches of the provisions of the Act carry summary maximum penalties of a £20,000 fine and/or six months’ imprisonment or up to five years’ imprisonment and/or an unlimited fine on indictment;

- The *Control of Asbestos Regulations* 2006 (CAR) (SI 2006/2739) which updated the *Control of Asbestos at Work Regulations* 2002 (SI 2002/2675) is the key piece of legislation in respect of works associated with or involving ‘asbestos-containing materials’. RICS has published a guidance note entitled *Asbestos and its implications for members and their clients*, which should be read in conjunction with this guidance note. If the presence of asbestos materials is suspected, this should be recorded using the property observation checklists set out in Appendices A-C of this document, and the client should be immediately alerted.

- Regulation 21 ‘Standards for analysis’ states that the analysis of samples of materials to determine whether they contain asbestos may only be undertaken by a person accredited as complying with ISO 17025 by the United Kingdom Accreditation Service (UKAS);

- Regulation 20 ‘Standards for air testing and site clearance certification’ requires that such a certificate is issued by a person accredited and complying with ISO 17025 by the UKAS;

- Regulation 4 requires every ‘dutyholder’ to manage the risk from asbestos in non-domestic premises. This will require a suitable and sufficient assessment as to whether asbestos is or is liable to be present in the premises unless data exists to show that the premises do not contain asbestos.

- The *Dangerous Substances (Notification and Marking of Sites) Regulations* 1990 (SI 1990/304), which cover sites containing 25 tons (25,400 kg) or more of dangerous substances, establish a system for authorisation and registration administered by the Health and Safety Executive.

2.6 Discharges from land and buildings into water

2.6.1 Part 1 of the *Environmental Protection Act* 1990 introduced a system of integrated pollution control (IPC) as part of its purpose to ‘make provision for the improved control of pollution arising from certain industrial and other processes’. Under this system was designed to provide a framework for pollution control by ensuring that, emissions to air, water and land from certain specified industrial processes are permitted by a single authorisation.

2.6.2 In 1999 the *Integrated Pollution and Prevention Control Directive* (now Directive 2008/1/EC) was transposed into UK law by the *Pollution Prevention and Control Act* 1999, which was, in effect, enabling legislation for the *Pollution Prevention and Control Regulations* 2000 in respect of England, Wales and Scotland. The IPPC Directive will be superseded by the Directive on Industrial Emissions, when this is enacted.

2.6.3 On 6 April 2008, the *Environmental Permitting (England and Wales) Regulations* 2007 (SI 2007/3538), replaced the PPC Regulations. In England and Wales the integrated pollution control system was also repealed.
2.6.4 The new environmental permitting system consolidated existing PPC permitting and waste management licensing legislation in a single legislative instrument. In order to phase in the new system of environmental permits, existing pollution prevention control permits were deemed to be environmental permitting permits at the relevant date, and accordingly, under normal circumstances — the facility working within its operational limits, with no plans to increase any volumes — there were no immediate compliance issues for operators. However, it is important to emphasise that the essential requirements under the environmental permitting regulations are that the operators of ‘regulative facilities’ must hold an ‘environmental permit’ (EP) for the facility and that they must comply with the conditions of that permit. The environmental permitting system is being expanded with a view to including discharge consenting, groundwater authorisations, water abstraction and impoundment, radioactive substances regulation and licensing of some waste carriers and brokers.

2.6.5 Pollutants contained in water discharging from land or buildings may give rise to liability in a number of ways. Firstly, effluent from land may cause a statutory nuisance (see Section 2.4) (R. v Carrick District Council ex p. Shelley & another [1996] Env LR 273).

2.6.6 Section 85(1) of the Water Resources Act 1991 (the 1991 Act) makes it an offence to ‘cause or knowingly permit’ any poisonous, noxious or polluting matter or any solid waste matter to enter ‘controlled waters’. The interpretation of ‘cause or knowingly permit’ is very wide and covers any discharge that a person may in any way have caused or allowed. ‘Controlled waters’ include surface and ground water, estuaries and coastal waters. The same wide meaning with regard to ‘cause or knowingly permit’ applies with respect to other environmental legislation.

2.6.7 Discharge into controlled waters may take place by seepage through soil, surface flow or by direct means through a pipe or conduit. The Environment Agency considers the entry of pollutants into groundwater from a contaminated site to constitute a breach of s. 85(1) of the 1991 Act. The Agency uses its powers of prosecution under the section in cases where an owner or occupier of land may have wilfully ignored possible dangers arising from seepage.

2.6.8 The discharge of trade effluents from premises into drains or sewers is permitted by the Water Industry Act 1991 as amended by the Water Act 2003, subject to the conditions stipulated by the authorisation obtained from the sewerage undertaker. However, an offence is committed if a person causes or knowingly permits any matter, other than trade or sewage effluent, to enter controlled waters through discharge from a drain or sewer in contravention of a prohibition imposed by the Environment Agency. This may constitute an offence by virtue of s. 85(2) of the Water Resources Act 1991.

2.6.9 The Environment Act 1995 added new ss. 161A–161D to the 1991 Act, giving the then National Rivers Authority (now the Environment Agency) the power to require a person causing or knowingly permitting the entry of poisonous or polluting matter into controlled waters to carry out anti-pollution remedial measures, at that person’s cost. Section 161 also gives the Environment Agency the power to enter land itself and carry out remedial works to prevent pollution of controlled waters, and to charge the cost to the person who caused or knowingly permitted the pollution to take place. These provisions are known as Anti-Pollution Works notices and are contained in the Anti-Pollution Works Regulations 1999 (SI 1999/1006).

2.6.10 Note that the migration of pollutants in water may also cause damage to the interests of neighbouring owners. Reference is made below to common law remedies with regard to this (see Section 2.10).
2.7 Discharges into air

2.7.1 Pollution that is discharged into air, for instance in the form of dust, vapour or smoke, may give rise to a statutory nuisance under s. 79 of the Environmental Protection Act 1990.

2.7.2 The Air Quality (England) Regulations 2000 (SI 2000/928) revoke and replace the previous Air Quality Regulations 1997 (in so far as they relate to England). The regulations follow from Part 4 of the Environment Act 1995, which require local authorities to ‘review the quality of air within their area’. The reviews have to consider the quality for the time being and the likely future quality during the “relevant period”. The regulations prescribe the relevant period and set out air quality objectives to be achieved by the end of that period for seven types of pollutant. The relevant period runs from a date before the Regulations were implemented, to an end date ranging from 31 December 2003 to 31 December 2008. The seven pollutants are benzene, 1,3-butadiene, carbon monoxide, lead, nitrogen dioxide, PM10 and sulphur dioxide. The Air Quality Standards Regulations 2007 (SI 2007/64) fulfil the function of transposing the fourth daughter directive made under the Air Quality Framework Directive (96/62/EC) in relation to arsenic, lead, mercury, nickel and polyaromatic hydrocarbons in ambient air.

2.7.3 The 2007 Regulations provide for a limit and target values to cover the attainment of air quality values, the maintenance of air quality standards and action plans, the assessment of air quality including background monitoring, and public information and participation.

2.7.4 It is very important to consider the impact that the above legislation has on the primary law regarding the climate change levy introduced in Part 2 of the Finance Act 2000. This is a levy on the use of energy in industry commerce and the public sector, with offsetting cuts in employers’ National Insurance contributions and additional support for energy efficiency schemes and renewable sources for energy.

2.8 Waste on land and its removal

2.8.1 Any waste has the potential to cause environmental damage if it is not managed correctly. From the national perspective, the waste legislation adopts a ‘cradle to grave’ approach. This ensures that legal controls are exercised over waste from its production up to and including its final disposal.

2.8.2 Increasingly, the concept of ‘producer responsibility’ is fundamentally changing the way in which products are designed and manufactured, with a view to enhancing their ability to be reused or recycled at the end of their lives. Dealing with soil is no different, because there is a greater need to ensure that there is appropriate treatment, preferably reuse, recycling or recovery at the regeneration phase, as opposed to resorting to landfill. Negotiations should be held with the local authority and the Environment Agency to clarify what the site specific requirements are for licensing as part of any planning application.

2.8.3 Differentiating between different forms of waste may have important cost implications when cleaning up contaminated land. This is because the solution for remediation of any land is site-specific. This can significantly affect the viability of development if materials have to be excavated and removed from site.

2.8.4 All businesses are subject to legal requirements regarding waste. For example, the disposal of cooking oil from restaurants, waste paper from offices, fluorescent light bulbs, and any other waste stream from business premises. The waste management regulations require sound practices and strict record keeping. Section 34 of the Environmental Protection Act 1990 imposes a duty of care regarding waste. More stringent controls apply to hazardous waste, such as fluorescent tubes and waste oil.

2.8.5 Legislation and policy are increasingly encouraging waste minimisation, recycling and reuse. The move away from landfilling will continue, as will increases in the cost of landfilling, Landfill tax relief has been removed and the cost of removing waste to landfill will only increase with increase with strict regulation as to what waste can go where. Waste legislation has developed extensively in recent years and continues to evolve. Waste management licensing and related exemptions have, with effect from 6 April 2008, been subsumed within the unified environmental permitting framework established under the Environmental Permitting (England and Wales) Regulations 2007 (SI 2007/3538), as amended.
2.8.6 ‘Waste’ is defined by Article 1 of Directive 2006/12/EC of the European Parliament and of the Council on waste as ‘any substance or object in the categories set out in Annex I which the holder discards or intends or is required to discard.’ Annex I lists 16 categories, the last of which is stated to be: ‘Any materials, substances or products which are not contained in the above-mentioned categories’. Section 75 and Sch. 2B of the Environmental Protection Act 1990 set out the English law on the meaning of ‘waste’ pursuant to the 2006 Directive. The Environment Agency is the competent authority for the enforcement of waste management controls in England and Wales; the Scottish Environment Protection Agency is responsible for similar functions in Scotland.

2.8.7 Determining when a substance or material is waste and when it ceases to be waste is complex. The European Court of Justice (ECJ) has issued many judgments on the issues involved. The judgments handed down by the ECJ are binding on member states and, of course, their competent authorities.

2.8.7 In summary, waste is any substance or object in a category set out in Sch. 2B of the Environmental Protection Act 1990 the holder of which discards or intends or is required to discard when it is no longer part of the normal commercial cycle or part of the chain of utility.

**Controlled waste**

2.8.8 ‘Controlled waste’ is essentially a nationally established definition, set out in s. 75(4) of the Environmental Protection Act 1990 to mean ‘household, industrial and commercial waste or any such waste’. As the meaning of ‘waste’ has been determined by judgments by the European Court of Justice and the national courts, the scope of waste that is ‘controlled waste’ has been affected. Under s. 33 of the 1990 Act, it is an offence to deposit, treat, keep or dispose of controlled waste unless the activity is carried out under and in accordance with an environmental permit. There are very few exemptions from this obligation.

2.8.9 In 2009, Defra issued a consultation on the ‘duty of care’ under s. 34 of the 1990 Act for all those people producing or dealing with waste. Defra has yet to publish the revised code of practice to the duty of care.

As a general rule, producers must, among other things, ensure that:

a. Non-hazardous waste is disposed of by a registered waste carrier and is accompanied by a transfer note containing a detailed written description and central information for its handling, treatment and disposal. Copies of the transfer note must be retained by the producer.

b. Hazardous waste must only be consigned to registered waste carriers. The details to be completed on consignment notes, together with other requirements, are more stringent than for non-hazardous waste.

c. The waste must be contained in such a way as to prevent it escaping into the environment at the premises before it is transferred or consigned, respectively.

d. Measures must be in place to ensure that others involved with the handling and disposal of waste do so in accordance with the law.

There are limited exemptions from the above. For example, domestic waste is collected by council waste collectors without the need for transfer or consignment notes.

2.8.10 Part 3 of the Environment Protection Act 1990 gives local authorities the power to inspect and act upon a wide range of statutory nuisances, including ‘any accumulation or deposit which is prejudicial to health or a nuisance’.

2.8.11 Surveyors should be aware of legislation relating to waste, as they may advise in connection with land on which excavated materials may have been deposited. If valuation using the residual method is considered, guidance is found in the RICS Valuation Information Paper *Valuation of Development Land*. 

---

**Contamination, the environment and sustainability**

Effective from 1 April 2010
Hazardous waste

2.8.12 At one time, hazardous waste was defined as special waste, but this was changed as a result of the Hazardous Waste (England and Wales) Regulations 2005, as amended. These regulations, which came into force on 16 July 2005 and apply to England and Wales, set out a new regime for controlling and tracking the movements of hazardous waste as required by the Hazardous Waste Directive (91/689/EC). Hazardous waste to which the regulations apply is listed in the List of Wastes (England) Regulations 2005 (SI 2005/895). The Special Waste Amendment (Scotland) Regulations 2004 (SSI 2004/112), as amended, apply in Scotland.

2.8.13 Regulation 6 of the Hazardous Waste (England and Wales) Regulations 2005 defines waste as ‘hazardous waste’ if it is:

- listed as a hazardous waste in the List of Wastes (see paragraph 2.8.16);
- listed in regulations made under s. 62A(1) of the Environmental Protection Act 1990;
- a specific batch of waste which is determined pursuant to reg. 8 to be a hazardous waste.

2.8.14 The Secretary of State has the power to determine under reg. 8 that a specific batch of waste is to be treated as either hazardous or non-hazardous. Part 4 of the Hazardous Waste Regulations prohibits the mixing of any waste which has been recovered or produced. There is an exemption if the establishment is authorised to do so.

2.8.15 There are also stringent obligations to record information concerning the waste, and for this information to be submitted to the Environment Agency in respect of each consignment of hazardous waste as noted above.

2.8.16 The List of Wastes is set out in the following statutory instruments:

- List of Wastes (Wales) Regulations 2005 (SI 2005/1820);

Waste management – regulatory enforcements

2.8.17 The Environment Agency (for England and Wales; in Scotland the Scottish Environment Protection Agency) and to a lesser extent local authorities, enforce the waste legislation. In 2008, the Environment Agency, which has created a National Environmental Crime Team, prosecuted 454 waste cases resulting in a total of £3,156,427 in fines, over twice the amount in 2004. The courts also handed down prison sentences.

2.8.18 The Regulatory Enforcement and Sanctions Act 2008 is changing the way in which offences are assessed and treated by the Environment Agency (and other governmental enforcement bodies). A proportion of the cases will be dealt with by the Environment Agency itself, with appeals handled by a tribunal and only the more serious cases going to the criminal courts. Defra issued a consultation on the application of the Regulatory Enforcement and Sanctions Act 2008 to the Environment Agency and English Nature on 21 July 2009.

2.8.19 Fly-tipping incidents are a particular problem, with 2.6 million incidents reported in 2007. In 2007-08, local authorities prosecuted 1,871 incidents, achieving convictions in 95%. The UK government spent £73.8 million in clearing the tipped waste in 2007-08.

Other waste legislation

2.8.20 Legislation applies to certain goods and products from the time they are created, in order to ensure their proper recycling, reuse or disposal.

Examples of relevant European directives that have been transposed into UK law include:

- Directive 94/62/EC on packaging and packaging waste, as amended;
- Directive 2002/96/EC on waste electrical and electronic equipment, as amended;
- Directive 2002/95/EC on the restriction of the use of certain hazardous substances in electrical and electronic equipment; and
2.8.21 Soil is an important resource. It is the top layer of the earth’s crust. It is an extremely complex, variable and living medium and is a non-renewable resource. It is vital for many functions of human habitation. It is a medium for food and other biomass production, storage, filtration, and transformation of many substances, including water, carbon and nitrogen. Soil has a role as a habitat and gene pool, serves as a platform for human activities, landscape and heritage, and acts as a provider of raw materials. These functions are worthy of protection because of their socio-economic as well as their environmental importance. Therefore, erosion, loss of organic matter, compaction, landslides, contamination, sealing and is accelerating with negative effects on human health, natural eco systems and climate change as well as the economy. At present, only nine member states have specific legislation on soil protection with reference to contamination. The European Commission adopted a proposal for a Soil Framework Directive (SOM) 2006 (232) on 22 September 2006 with the object of protecting soils across the EU. The proposal proved to be controversial, particularly for provisions on remediating past contamination and is still in the legislative stages.

2.8.22 Directive 2004/35/CE on environmental liability with regard to the prevention and remedying of environmental damage (the Environmental Liability Directive) is the first polluter-pays legislation enacted by the European Union. It was transposed into UK law in 2009:

- the Environmental Damage (Prevention and Remediation) Regulations 2009 (SI 2009/153) (entry into force: 1 March 2009);
- the Environmental Damage (Prevention and Remediation (Wales) Regulations 2009 (SI 2009/995) (entry into force 6 May 2009);
- the Environmental Liability (Scotland) Regulations 2009 (SSI 2009/266) (entry into force: 24 June 2009); and

2.8.23 The Environmental Liability Directive imposes strict liability on the operator of certain listed activities to prevent or remediate the imminent threat of, or actual, environmental damage, respectively. The natural resources to which the Directive applies are:

- surface, coastal, ground and transitional waters;
- soil when there is a significant risk of an adverse effect on human health; and
- protected species and natural habitats.

The regulations for England and Wales also impose liability for the imminent threat of, and actual, environmental damage to sites of special scientific interest (SSSIs). The regulations for Northern Ireland impose such liability for areas of special scientific interest (ASSIs). The regulations for Scotland do not extend to SSSIs.

2.8.24 The operator of a non-listed activity is liable for preventing or remediating an imminent threat of, or actual, environmental damage to protected species and SSSIs/ASSIs, as indicated above, but only if the operator is negligent.

2.8.25 Chartered surveyors may be affected by the regulations in a variety of ways, as owners, managers, agents, consultants and advisors. The regulations are wide-ranging and will potentially affect the clients of several different areas of practice specialism and designations of chartered surveyors, including environmental, rural, mineral and waste, valuation, planning and development and construction, as well as general practice. This includes valuation surveyors.

2.8.26 Businesses and related operators should be aware whether work is carried out such that it is in the vicinity of:

- sites with high conservation value, in particular those subject to a designation due to the presence of protected species or natural habitats;
- SSSIs/ASSIs;
- aquifers and vulnerable groundwater;
- surface water bodies; and
- anywhere else where an activity involves substances, preparations, organisms or micro-organisms that are a potential human health hazard.
2.8.27 For further information on this area, see RICS Information Paper The Environmental Damage (Prevention and Remediation) Regulations 2009.

2.8.28 Prior to the introduction of the Environmental Liability Directive, various regimes imposed liability for remediating environmental damage. They include (all as amended):

- *Environmental Protection Act* 1990 Parts 1, 2, 2A;
- *Water Resources Act* 1991;
- *Water Act* 2003;
- *Groundwater Regulations* 1998 (new regulations coming into effect in late 2009);
- *Control of Major Accident Hazard Regulations* 1999; and

The Environmental Liability Directive has substantially broadened the scope of natural resources subject to remediation and restoration in the event of environmental damage.

2.8.29 The Environmental Damage Regulations could have implications for valuations in terms of potential environmental liability or environmental impairment. Valuers will have to be diligent in providing opinions of value where the regulations are likely to apply, and also in considering situations where specialist environmental advice is required, for example from a chartered environmental surveyor. All chartered surveyors should consider the extent and limitations of their normal professional indemnity insurance cover in relation to providing advice concerning some of the aspects covered by the regulations, for example pollution exclusions. The regulations go beyond contamination into additional types of environmental damage, and it is highly unlikely that existing PII policies will offer adequate cover as a result.

Waste: a summary

2.8.30 Both the regulation of waste and activities connected with the processing of waste are expanding rapidly. Their continued expansion is likely to be supported by both public and private funds. In particular, the emphasis on recycling and re-use is generating new technologies and almost a whole new industry. The impact of waste activities on property should not be underestimated.

2.9 Land subject to nature conservation measures

2.9.1 SSSIs are notified under s. 28 of the *Wildlife and Countryside Act* 1981 (amended by the *Wildlife and Countryside (Amendment) Acts* 1985 and 1991). It is an offence for the owner or occupier of an SSSI to carry out, or cause or permit to be carried out, any potentially damaging operations specified in the notification. The release of pollutants within or onto an SSSI may result in liability to prosecution. Written consent from Natural England, Scottish Natural Heritage or the Countryside Council for Wales, as appropriate, is required for any proposed works.

2.10 Liability for contaminated land in common law

2.10.1 The migration of contaminants in land can trigger actions for bodily injury or property damage in private nuisance, public nuisance, negligence, the rule in *Rylands v Fletcher* (1868) or, less likely, trespass. Claims may be brought by neighbouring owners or other affected persons.

2.10.2 It has been the experience in the US that private claims often provide the main stimulus for regulatory action; the same effect (under the influence of the local press) is emerging in the UK.

2.10.3 A perceived risk of regulatory liability may encourage an owner of land to commence a private action against the owner of an adjoining contaminated site depending, of course, on the applicable circumstances.

2.10.4 The House of Lords, in *Cambridge Water Company v Eastern Counties Leather plc* [1994] 2 AC 264, considered the extent of strict liability under the rule in *Rylands v Fletcher*. The key question was: could a person who had permitted pollutants to escape be strictly liable to pay for the resulting damage where he had been unaware of the harm that would be caused by the pollutants at the time that they escaped? In its judgment, the House of Lords decided a number of points:

- for a claim to succeed under *Rylands v Fletcher*, the fact that the materials concerned might be harmful must have been reasonably foreseeable at the time that they escaped;
• subject to this, any subsequent damage caused to third parties will be actionable;

• where a person has acquired land that is already contaminated, he or she may be liable in nuisance for the effect of any pollution of which he or she was aware or which he or she might have discovered if they had carried out reasonable investigations (Leakey v National Trust [1980] 1 All ER 17). The amount of damages will depend on individual circumstances and the wealth of the defendant; and

• in some circumstances, an owner may be deemed to have knowledge of matters that his professional advisers could have discovered if they had carried out proper investigations (see Sedleigh-Denfield v O’Callaghan [1940] AC 880).

2.10.5 The House of Lords subsequently decided, in Transco plc v Stockport Metropolitan Borough Council [2004] 1 All ER 589 that the rule in Rylands v Fletcher should continue, despite difficulties in interpreting it and the expansion of the law of negligence.

2.10.6 Common law liability may be particularly material to property transactions, as contamination is rarely confined to a single site. An action by an adjoining owner alleging nuisance arising from the migration of contaminants may result in significant market stigma affecting both the value and marketability of the land in question. For this reason, the prospect of private litigation may, on occasions, be effective in persuading an owner of land within an area of widespread contamination to participate in a collective remediation project. Driven by commercial imperatives, the potential for private litigation in the future is considerable.

2.10.7 In the case of Blue Circle Industries plc v Ministry of Defence [1988] 3 All ER 385, heard in the Court of Appeal in 1988, Blue Circle owned property adjacent to the atomic weapons research establishment at Aldermaston, owned by the Ministry of Defence (MoD). Following significant heavy rainfall, a small amount of radioactive contamination (in this case, plutonium) was washed onto a remote part of Blue Circle’s property from the Aldermaston estate. Although the MoD voluntarily cleaned the site up, at a cost of some £350,000, Blue Circle had been hoping to sell the site and claimed the lost profit on the abortive sale, which was cancelled as a result of the pollution incident. The Court decided that contamination does amount to physical damage, and accordingly a claim can be sustained for all the losses flowing from that damage, including the loss of profit on the sale. In this case, it was held by the Court of Appeal that Blue Circle had a 75% chance of sale of property and that the MoD accordingly owed Blue Circle the difference of £4m plus interest and costs. The Court also decided that the site had suffered stigma and that an allowance of 10% should be made for the blighting effect of the site being damaged by radioactive contamination.

2.10.8 As indicated above, civil liability may be strict for the foreseeable consequences of a spillage or accident. If there is some blighting effect on contaminated land – even if it is cleaned up – the diminution of value may be recoverable, however difficult this is to quantify.

2.10.9 Personal injury actions are also relevant in this respect. As the effects of contaminants on health may be insidious and long-term, disease claims may result. The claimants will, of course, have the burden of proving causation, as noted in Claimants on the Register of the Corby Group Litigation v Corby District Council [2009] EWHC 144, a group action resulting from work carried out at the former British Steel plant at Corby between 1985 and 1999. The families of 18 children who were born with deformed hands and feet succeeded in the first stage of litigation at the High Court in July 2009, but still had the difficult task of proving individual causation between the works and the children’s deformities. The case is subject to judicial appeal. There may be significant commercial implications resulting from this.
2.11 Understanding the law in respect of property transactions

2.11.1 A person who ‘causes or knowingly permits’ polluting matter to enter, or to be at a place from which it can enter surface, coastal or groundwater under the Water Resources Act 1991, or who ‘caused or knowingly permitted’ land to be ‘contaminated land’ under Part 2A of the Environmental Protection Act 1990, cannot generally escape liability by disposing of the land – but may diminish his or her proportionate liability to contribute to remediation. Three possibilities are open to the vendor:

- to agree with the purchaser that the latter will remediate as a matter of contract;
- to obtain indemnities against past and future liability; or
- to rely on the transfer of liability provisions under Part 2A of the 1990 Act (in relation to liabilities under that Act).

These are commented upon in turn below.

**Contract**

2.11.2

- Some remedial operations require planning permission. Prior consultation should be undertaken with the local authority and the Environment Agency concerning the terms for necessary consents.

- The vendor should take care not to sell the land yet retain potential environmental liabilities connected with it, by, for example, not including relevant language in the contract of sale. (See also below, concerning retention of control.)

- The professional’s duties of care will need to be carefully considered.

- An adequate means of validating and ‘signing off’ the remediation work must be defined. In many cases a ‘section 106 agreement’ (relating to planning obligations) may be the preferred means of doing so. However, in reality these are likely to be used rarely. Local authorities are often less than willing to grant a sign-off of liability.

2.11.3 It is therefore important to consider the use of a land condition record or a land quality statement (see Section 11.8) as a means of ensuring that all matters identified have been dealt with satisfactorily and that there is a clear audit trail as to the work undertaken on site.

**Indemnity**

2.11.4 Indemnities against liability for existing contamination need to be carefully drafted and must be specific. Further, they are only as good as the continued financial strength of the person giving them. The role of suspense accounts and guarantors must be considered. Guarantors will not generally be liable as ‘Class A persons’ for the purposes of Part 2A of the 1990 Act, in view of the exclusion for persons providing financial assistance (see paragraph 2.11.6 below).

**Transfer of liability under Part 2A**

2.11.5 The statutory guidance under Part 2A of the 1990 Act does allow, in certain circumstances, for liability for remediation to be statutorily transferred to another person. The transfer of liability is only possible within a liability class, for example from one Class A appropriate person to another Class A appropriate person.

**Exclusion from liability under Part 2A**

2.11.6 The statutory guidance under s. 78F(6) of Part 2A of the 1990 Act allows, in certain circumstances, for a person who would otherwise be a Class A appropriate person to be excluded from liability. The tests for determining whether a person can avoid liability under this section are as follows.

- Test 1: Excluded activities (Sections D47–D50 of the statutory guidance).
- Test 2: Payments made for remediation (Sections D51–D56).
- Test 3: Sold with information (Sections D57–D61).
- Test 4: Changes to substances (Sections D62–D64).
- Test 5: Escaped substances (Sections D65–D67).
- Test 6: Introduction of pathways or receptors (Sections D68–D72).

2.11.7 These excluded activities relate to Class A appropriate persons, because a Class A appropriate person cannot sell the benefit of land with contamination on to a Class B appropriate person to absolve him or herself from liability; the purchaser must be a ‘knowing permitted’, that is, a Class A person.
2.11.8 The exclusion tests are highly complex. They emphasise the need to employ a specialist chartered environmental surveyor or specialist solicitor to ensure that they are properly understood with regard to the property transaction in question. These tests are considered, in essence, below. Readers are strongly advised to consult the original statutory guidance, due to its complexity.

**Test 1: Excluded activities**

2.11.9 This test is designed to exclude from liability as a Class A person those persons who have been identified as having 'caused or knowingly permitted' land to be contaminated solely by reason of having carried out certain activities, which carry such limited responsibility, if any, that exclusion is justified.

2.11.10 The following activities are considered to be excluded activities in this respect:

- providing (or withholding) financial assistance to another person (whether or not that person is a member of the liability group) in the form of any one or more of the following:
  - making a grant;
  - making a loan or providing any other form of credit, including instalment credit, leasing arrangements and mortgages;
  - guaranteeing the performance of a person's obligations;
  - indemnifying a person in respect of any loss, liability or damage;
  - investing in the undertaking of a body corporate by acquiring share capital or loan capital of that body without thereby acquiring such control as a 'holding company' has over a 'subsidiary', as defined in s. 736 of the Companies Act 1985; or
  - providing a person with any other financial benefit (including the remission in whole or in part of any financial liability or obligation);
- underwriting an insurance policy under which another person was insured in respect of any occurrence, condition or remission by reason of which that other person has been held to have caused or knowingly permitted the significant pollutant to be in or under the land; and
- providing legal, financial, engineering, scientific or technical advice to (or design, contract management or works management services for) another person who is the surveyor's client, whether or not that person can now be found.

**Test 2: Payments made for remediation**

2.11.11 This test is designed to exclude from liability those who have already met their responsibilities by making adequate and appropriate payment to other persons of the liability group for remediation. Payments qualifying for this purpose are limited to:

- payment made voluntarily in response to a claim for the cost of particular remediation;
- payment made pursuant to a civil action or arbitration for the cost of remediation; and
- payment made under a contract (including a price reduction) in consideration of the transfer of the land and in order to meet the cost of carrying out a particular remedial measure.

2.11.12 No such payments are effective if the person who makes them retains any control over the land (other than limited controls such as a restrictive covenant). Payments are only effective in creating an exclusion where:

- the payment would have been sufficient at the date that it was made to pay for the remediation in question; and
- if the remediation had been carried out effectively, the land would not have been contaminated land by reason of the relevant pollutant linkage in question; and
- the remediation was not carried out or was not carried out effectively.
**Test 3: Sold with information**

2.11.13 The aim of this test is to exclude from liability Class A persons who have sold (or let land on a long lease) to another person within the same class, having ensured that the purchaser or lessee had information as to its contaminated condition and was thus able to take that information into account in agreeing the price. For this purpose:

- one member of a liability group must have sold the freehold interest (or a lease for longer than 21 years) to another member of the same class at ‘arm’s length’;
- before the sale becomes binding, the purchaser must have had information that would ‘reasonably allow that particular person to be aware of the presence on the land of the pollutant identified in the significant pollutant linkage in question, and the broad measure of that presence and that the seller did nothing to misrepresent the implications of that presence’;
- in transactions since 1990 where the purchaser is a large commercial organisation or public body, permission granted by the vendor to the purchaser to carry out its own survey should normally be taken as sufficient indication that the purchaser had the necessary information;
- after the sale, the seller must not retain any interest in the land in question or any right to occupy that land; and
- the liability test ‘sold with information’ does not necessarily imply that the buyer has ‘caused or knowingly permitted’ the presence of the significant pollutant in or under the land.

**Test 4: Changes to substances**

2.11.14 This category serves to exclude from liability those who are members of a liability group solely because they caused or knowingly permitted the presence in or under the land of a substance that has only led to the creation of a significant pollutant linkage because of its interaction with another substance that was later introduced to the land by another person.

**Test 5: Escaped substances**

2.11.15 This test is designed to exclude from liability those who would otherwise be liable for the remediation of land that has become contaminated as a result of the escape of substances from other land, where it can be shown that another member of the liability group was actually responsible for that escape.

**Test 6: Introduction of pathways or receptors**

2.11.16 The purpose of this test is to exclude from liability those who would otherwise be liable solely because of the subsequent introduction by others of the relevant pathways or receptors in the significant pollutant linkage.

2.11.17 It is recommended that surveyors bear in mind that exclusion under this test will depend on whether or not the members of the liability group have carried out a ‘relevant action’ and/or made a ‘relevant omission’. The definition of ‘relevant action’ could mean the carrying out of building, engineering, mining or other operations in, on or over the land in question, or the making of a material change in the use of land for which a specific application for planning permission was required to be made, as opposed to permission being granted or deemed to be granted by general legislation or by virtue of a development order. See the application of this test to the Sevenoaks District Council case above.

2.11.18 A ‘relevant omission’ means failing to take a step in the course of the relevant action that would have ensured that a significant pollutant linkage was not brought into existence as a result of that action.

2.11.19 It is important that surveyors, when advising clients in respect of any operations on land, ensure that the appropriate approvals have been obtained from the relevant local planning authority and that the regulators have been fully consulted.
2.12 General pollution insurance cover

2.12.1 Landowners’ property insurance policies are highly unlikely to provide cover for remediating contamination, because land is generally not listed as insured property. Further, most policies contain either qualified or absolute pollution exclusions. That is, the policies either exclude cover for remediating contamination with a write-back for sudden and accidental pollution incidents, or they exclude cover for remediating contamination absolutely.

2.12.2 Landowners’ current public liability policies are also unlikely to provide cover for remediating contaminated land. These policies also virtually always include a qualified pollution exclusion, thus barring cover for remediating gradual pollution. In addition, they may provide cover for third-party bodily injury and property damage claims only. Pre-1990 policies will generally not include a pollution exclusion. Such policies may be triggered by a past pollution event if, say, pollution occurred in the past and has only recently been discovered. This is because public liability policies are written on an ‘acts occurring’ basis. This means the triggered policy is the policy that was in force at the time the bodily injury or property damage occurred. The precise scope of historic cover varies widely, and the terms of insurance must therefore be carefully read and understood.

2.13 Site-specific environmental liability insurance cover

2.13.1 During the early 1990s a number of insurance companies began to offer insurance policies to indemnify owners and developers of land against future liability arising from the discovery of contamination that was present at a site but was not known to the insured when the policy started.

2.13.2 Cover is now available not only for undiscovered contamination but for contaminated sites. The number of carriers of such insurance has increased, the premiums have decreased dramatically and the policies are much more flexible than during the 1990s.

2.13.3 The purpose of so-called property transfer insurance is to ensure that owners, occupiers, lenders and investors know that if contamination is discovered at, or migrating from their site, they have protection against the cost of remediating it, together with protection against third-party claims that may arise. If an insurance programme is successfully put in place, it can remove many of the uncertainties connected with a site and promote further investment and development.

2.13.4 The generic types of cover available in the UK market at the present time include the following:

- property transfer policies, as described above;
- stop loss (covering cost overruns, or unforeseen circumstances arising during contamination works) for remediation programmes costing over £1 million;
- first- and third-party environmental cover (for claims or the costs of remediation from pollution incidents that take place during the policy period, including liabilities arising under the Environmental Liability Directive);
- loss of profit cover (relating to a loss of rent and other costs arising from a contamination-related claim);
- cover for the costs of interruption to business;
- cover for a contamination-related incident leading to an inability to service a mortgage loan; and
- cover for the inability to service rent due under a lease.

2.13.5 Surveyors are reminded that they should take advice from a specialist environmental insurance broker. Surveyors are also reminded of the obligations imposed by the Financial Services Authority (FSA) concerning the offering of advice regarding insurance, where they are not registered with the FSA.
3 Identifying possible contamination and environmental features: the surveyor’s role

3.1 Introduction

3.1.1 Here, we consider the role of the surveyor in identifying contamination and other environmental features. After making some general points, we explain the use of checklists during the surveyor’s inspection of land and property. Following the inspection, the surveyor may make enquiries with regard to contamination, flooding, coal mining or other environmental features. The answers to these enquiries will determine whether the surveyor may feel it necessary to recommend further specialised investigations. Finally, we consider ‘reporting’, from the surveyor’s point of view, and set out some standard reporting phrases.

3.2 General points: contamination

3.2.1 RICS terms surveyors who have the specialist knowledge and expertise to investigate contamination ‘chartered environmental surveyors’. While some chartered surveyors have this level of specialist knowledge and expertise, most do not. Nor do most chartered surveyors have the opportunity to investigate contamination, in the course of providing the services for which they are generally engaged, or the professional indemnity insurance (PII) to enable them to do so.

3.2.2 Surveyors are advised to investigate the adequacy of their PII policies in respect of the undertaking of any work: the caveats used, the provision of advice on appointment, the undertaking of the actual appointment, and the supervision of specialist consultants. If the services that the surveyor offers change, these changes must be notified to the insurer.

3.2.3 Surveyors should bear in mind that while they should not express an opinion on matters for which they have no PII cover, a failure to report potential contamination that would be apparent to a competent chartered surveyor in the course of the provision of a professional service would be considered a breach of the surveyor’s duty of care.

3.2.4 It is therefore essential that surveyors always agree with their clients where the various responsibilities concerning contamination are to lie. It is advisable to confirm such agreements in writing.

3.2.5 Surveyors are reminded to be aware of their own personal safety when visiting all sites. Contaminated sites may additionally contain hazardous substances and hidden dangers. Appropriate clothing should be worn and precautions taken during the course of any site visit, but this is essential when visiting potentially contaminated sites. The RICS promotes personal safety in all locations, including on site. In the absence of any health and safety plans specific to the practice or business of the surveyor, the surveyor should refer to the RICS guide Surveying safely: Your guide to personal safety at work.

3.3 General points: environmental features

3.3.1 Many surveyors have specialist knowledge to draw on when investigating environmental factors, either as part of an assessment process or in association with other forms of instruction. What is important is that the chartered surveyor who is consulted on such matters is a specialist in their respective area of practice, and has the relevant professional indemnity insurance. Surveyors are reminded that chartered environmental surveyors are likely to have specialist skill sin commenting upon environmental matters.

3.3.2 It is important that the surveyor understands the limitations of their expertise and PII and brings this to the attention of the client at all times. It is also essential that surveyors agree with their clients where the various responsibilities concerning environmental features are going to lie. It is advisable that such understandings are agreed in writing.

3.4 Inspections and property observation checklists

3.4.1 Whatever agreement may be reached with a client, surveyors have a duty to report any possible contamination or impairment or other environmental impediments seen in the course of their inspections. Many businesses give rise to the potential for environmental pollution and contamination. This is particularly notable with above-ground oil-storage tanks, to take one example. The Environment Agency, Scottish Environment Protection Agency and local authorities are increasingly taking enforcement action against businesses where contamination has occurred. The surveyor should therefore be aware of the potential effects of business practices.
3.4.2 The surveyor should also record any other environmental factors that can be observed during the course of their site inspection. There may be obvious signs of earlier flood events, for example, or the presence of telecommunications media or other observable issues that need to be brought to the attention of the client. This is essential when asbestos is present on the premises.

3.4.3 RICS has produced a number of property observation checklists (see Appendices A-C) and in the absence of any instruction or agreement to the contrary their use is recommended. Surveyors may use them, at their discretion, to note what they see, and use the checklists to remind them to consider what to report and how to do so. Valuers should bear in mind that a number of banks have produced their own land use questionnaires or checklists for use particularly in valuations for loan security. Many of the questions in these documents are open-ended, with pitfalls for the unwary. A typical phrase used in such questions is ‘To the best of your knowledge and belief …’. These questions are difficult and potentially dangerous to answer without a comprehensive report being completed. Extensive discussions have been held between the members of the PII market and RICS concerning these questionnaires and checklists. Surveyors are unlikely to be insured through the medium of PII when completing these. However, the insurance market does not regard the completion of an RICS property observation checklist, when simply completed as part of a surveyor's other professional engagements, to be an environmental assessment.

3.4.4 Notes on the checklists in Appendices A-C are provided below. While RICS retains its copyright over these checklists, permission to reproduce them is hereby granted, although this permission can be withdrawn at the discretion of RICS.

a. Commercial property
The property observation checklist reproduced in Appendix A has been developed for commercial and industrial properties. In the same way that an inspection for valuation purposes is not a building survey, the provision of this checklist is not intended to suggest that the inspection should be any more thorough than is necessary for the primary purpose for which the inspection is being undertaken.

b. Rural property
The rural property observation checklist (Appendix B) has been produced with reference to agricultural and rural property.

c. Residential property
The residential property observation checklist (Appendix C) has been developed to aid reporting in those situations in which the surveyor encounters contamination features in respect of residential property in both urban and rural situations.

3.4.5 If a pertinent feature is observed, the checklist can act as an important aide-memoire. There have been an increasing number of cases in which the Environment Agency has prosecuted homeowners for leaking domestic fuel oil tanks and poorly maintained cesspits. It may be important for the surveyor to be aware of the presence of such features, particularly in relation to the position of the property and its proximity to surface water courses, streams or rivers.

3.4.6 The checklists also contain a way of recording whether the property has been flooded or has the potential to be flooded. Increasingly with climate change and rising sea levels as well as more violent storms increased insurance premiums, if insurance is available at all, may have a material bearing on the value and use of the property. Surveyors are expected to be aware as to how flood risk affects property.

3.4.7 The surveyor, using the checklists, should tick the boxes relating to the particular feature, making additional notes as necessary to assist with his or her subsequent consideration and preparation of the report. It is not intended that the checklists be provided to the client with the report. Whether they are or not, however, the information recorded in them is not to be construed as an environmental assessment, and the surveyor can take no responsibility for any matter other than the accuracy of his or her reasonable belief in the information reported (with any limitations on that information being made clear).

3.4.8 Notwithstanding any impact on the value of the property, the surveyor is reminded of the consequences of failing to report on any potential for contamination or the occurrence of contamination. A failure to report may even constitute a criminal offence, as the surveyor will be deemed to be ‘knowingly permitting’ the event to occur. It could also lead to a claim for negligence. The surveyor may not be insured for such matters.

3.4.9 Surveyors are reminded, when reporting to the client on the observations they have made during the inspection of the property, to report only the facts.
3.5 Making appropriate enquiries

3.5.1 The extent of enquiries to be made by the surveyor with a view to formulating an opinion as to whether further specialist investigations should be recommended will depend upon the client’s instructions, what the surveyor has seen on site, what is practicable and what is considered prudent or appropriate in each particular case. In many cases, surveyors are required to provide services within time constraints that preclude such enquiries or the securing of answers. Alternatively the client may have requested that the surveyor should disregard contamination and other environmental matters.

3.5.2 If a surveyor is commissioned to undertake a valuation, the degree of environmental information and comment given will need to reflect the purpose and basis of the valuation. Where a transaction takes place, an environmental report is likely to be obtained by the solicitor, which may have an impact on the services provided by the chartered surveyor. Where a purchase takes place, more comment may be needed.

3.5.3 It may be appropriate to consider making a recommendation to obtain a further opinion from a chartered environmental surveyor or environmental consultant (see paragraph 3.6 below). In some cases, a land quality statement or an environmental screening (see Part 11) may form an essential part of the advice, enabling a disposal of the property to take place.

3.5.4 Surveyors are reminded that they should not offer an opinion on matters for which they have no appropriate training. Consequently, enquiries should be reported as a matter of fact, rather than opinion – otherwise the surveyor may not be insured for the advice given.

3.5.5 Non-specialist surveyors are unlikely to possess the skills and expertise needed to understand all of the issues associated with contamination, environmental factors such as flood risk the associated environmental law and its impact on land and property matters. Where specific enquiries are to be made, consideration should be given to engaging a chartered environmental surveyor or, where appropriate, taking specialist legal advice.

3.5.6 Where a surveyor considers that he or she does have sufficient expertise and the necessary PII to make the appropriate enquiries, he or she should be aware of the three broad respects in which land may be affected by contamination. These are as follows:

- contaminants attached to and contained within the ground itself;
- contaminated water, which may be static or migrating onto or off the site; and
- airborne contaminative gases emanating from substances in the ground.

3.5.7 The Environment Agency publishes profiles of industry sectors deemed to be of high environmental sensitivity. These publications may provide a starting point for determining what enquiries and further investigations need to be recommended. The ‘DOE Industry Profiles’ are free to download. The broad areas covered by these titles include:

- airports;
- animal and animal products processing works;
- ceramics, cement and asphalt manufacturing works;
- chemical works;
- dockyards and docklands;
- engineering works;
- gasworks, coke works and other coal carbonisation plants;
- metal manufacturing, refining and finishing works;
- oil refineries and bulk storage of crude oil and petroleum products;
- power stations (excluding nuclear power stations);
- pulp and paper manufacturing works;
- railway land;
- road vehicle fuelling, service and repair;
- sewage works and sewage farms;
- textile works and dye works;
- timber products manufacturing works;
- timber treatment works;
- waste recycling, treatment and disposal; and
- miscellaneous industries, such as:
  - charcoal works;
  - dry-cleaners;
  - fibreglass and fibreglass resins manufacturing works;
  - glass manufacturing works;
  - photographic processing industry; and
  - printing and bookbinding works.
3.5.8 Other uses that should be taken into consideration include the following:

- modern farming practices, including intensively cultivated agricultural land, or buildings used for the storage of agro-chemicals;
- canal basins and wharves;
- sand extraction pits, lagoons and waste heaps;
- collieries and colliery spoil heaps;
- metalliferous mines and metalliferous waste heaps;
- waste heaps from chemical industries;
- refuse disposal sites and incinerator plants;
- landfill sites (past and present);
- land used for fly-tipping;
- land with naturally occurring ground problems; and
- land containing genetically modified organisms (GMOs).

Environmental data

3.5.9 Local authorities, the Environment Agency and the Scottish Environment Protection Agency are the principal regulators of contaminated land, carrying out a wide range of functions. However, it should be borne in mind that there is no single-source solution for obtaining all the environmental data needed to make a full assessment as to the issues associated with land contamination or other environmental features. Local authorities, however, often have environmental information available from a wide variety of departments such as:

- Building control: this may hold records on gas emissions and subsidence, as well as historic flood events. The department may also be aware of the existence of former landfill sites administered by the local authority in the past.
- Planning: the planning department will be aware of the planning history of a site, and may also be able to indicate previous uses of the land, as well as any recent remediation work carried out as a condition of obtaining planning approval.
- Environmental health: this department acts as the enforcement agency under Part 2A of the Environmental Protection Act 1990. It may hold records of land that has been remediated or made subject to a remediation notice. Many local authorities have designated contaminated land officers.
- Trading standards: this department deals with enquiries concerning petroleum licensing and holds a wide range of valuable data concerning former petrol filling stations and other petroleum tanks.

3.5.10 There is no standard letter of enquiry agreed with local authorities. Similarly, there is no standard form of enquiry letter to the Environment Agency. However, the Agency has given surveyors and solicitors dispensation as to how the information is to be used. A copy of this notice is attached in Appendix E.

3.5.11 Other enquiries may be made to water companies (regarding drainage to and from the site) and trading standards offices (for petroleum-licensing functions). These offices are sometimes found within county councils or local authorities.

3.5.12 In addition, information needs to be obtained from other sources if the advice to the client is to be complete. Such additional sources of information could include:

- historic Ordnance Survey maps – obtainable from local study centres, the Ordnance Survey itself, the Bodleian Library, the National Library of Wales Map Collection, the map library of the National Library of Scotland, county archives, Landmark Information Group, and, in the case of Northern Ireland, Trinity College, Dublin;
- Coal Authority mining reports and other mineral records;
- aerial photographs from commercial and statutory sources, such as English Heritage.

3.5.13 Surveyors should also consider whether it would be prudent to inspect planning permissions for conditions relating to environmental factors.

3.5.14 Since the Contamination guidance note was first published in 1997, significant sources of environmental information have been placed on the internet. Many of the regulators, as well as commercial information providers, have published data on the internet, accessible free of charge. Much of this is available to the public and clients, who may inform themselves, potentially clouding their view about the property. These ‘free’ sources should be treated with caution, however, either because they are reliant upon the surveyor interpreting the data, or because they have significant disclaimers. For example they are not property-specific and most rely on a postcode which may cover a very wide area.
3.5.15 Surveyors are advised to bear in mind that the Environment Agency and local authorities are likely to make substantial charges for the provision of environmental information other than that available free on the web. Although these organisations are under a statutory obligation to respond to requests for such information, this can take several weeks, or even months.

3.5.16 Alternative cost-effective commercial solutions may be available from commercial value-added resellers. These are commercial companies that sell data already interpreted, with an opinion given by a chartered environmental surveyor. These reports are available at a cost and are normally provided within one to two days. Surveyors may find that much of the information noted above has already been collated by these companies, acting as value-added resellers for the Environment Agency, the Ordnance Survey and other bodies such as the Coal Authority and the British Geological Survey. Surveyors should note that the cost of acquiring environmental data in this way should be drawn to the attention of the client.

3.6 Recommending further investigations

3.6.1 Matters identified from the inspection and/or enquiries will often lead surveyors to recommend that further investigations and advice are sought from a chartered environmental surveyor, or an appropriately qualified expert. However, this should not be an automatic reaction.

3.6.2 Surveyors should make such recommendations only when they believe that there is a real risk that their report (or the valuation reported therein) may be inadequate or unsuitable for the client's needs, without the result of such investigations being taken into account.

3.6.3 Increasingly, features such as the presence of asbestos and the process of brownfield development are having a material impact on the content of reports prepared for clients. Institutional purchases increasingly require environmental due diligence to be carried out before an acquisition is made, while banks are seeking comfort about contaminated land when making commercial lending decisions. Commercial properties are being acquired by individuals or groups of individuals as part of their personal pension plans. More, not less, advice is often needed by the trustees of these pension funds. Solicitors are also required to take into account the issue of contamination in 'every transaction' (see Appendices F and G for details).

3.6.4 For details of the investigations that are undertaken by specialists with regard to sites that may be contaminated, see Part 11.

3.7 Reporting

3.7.1 This section gives advice regarding the report the surveyor produces for the client, and the implications of contamination or other environmental features on the reporting process.

3.7.2 First, it is important that the surveyor confirms to the client, in writing and in advance, the scope of the report that the surveyor is required to provide, and whether or not contamination and environmental matters are to be considered. Unless this is done, any limitations or caveats in the report may not be effective. Particular care should be taken where the report can foreseeably be relied upon by a third party other than the client.

3.7.3 When compiling the report, the surveyor should address (from the client’s viewpoint) the negative aspects first. Surveyors should not:

- make any statement of fact about previous uses, other than the present or most recent use, except where the previous use is clearly widely known and where a statement can be (and is) properly qualified so as to reveal the source of the information; nor
- make any statement of opinion as to the risk of contamination being present in relation to land and buildings except where, as a result of his or her specific knowledge or training, the surveyor knows that a building harbours contaminative material; nor
- misrepresent any statement of opinion or conclusions prepared by a chartered environmental surveyor, or suitably qualified environmental consultant, who has been commissioned to undertake a specific investigation of the property for contamination, and which statement provides appropriate conclusions concerning historic and current land use.

3.7.4 The surveyor should always state clearly what has been observed during the course of the inspection, making no conclusions unless the surveyor has specific knowledge or training to interpret what was seen and how it affects the property in question.
3.7.5 Possible reporting phrases for use in reports are suggested below. It is not feasible to produce completely standard alternative reporting sentences, the adoption of which will be suitable in all cases. However, one of the following may form a basis for the composition of suitable advice, in most cases.

a. ‘We have been instructed not to make any investigations, in relation to the presence or potential presence of contamination or other environmental features in land or buildings or affecting the property. We have not carried out any investigation into past uses, either of the properties or any adjacent land, to establish whether there is any potential for contamination from such uses or sites, and have therefore assumed that none exists.

In practice, purchasers in the property market do require knowledge about contamination and other environmental factors. A prudent purchaser of this property would be likely to require appropriate investigations to be made to assess any risk before completing a transaction. Should it be established that contamination does exist, or the property is affected by other environmental factors, this might reduce the value now reported.’

b. ‘In carrying out this work we have carried out various enquiries in order, so far as is reasonably possible, to establish the potential existence of contamination arising out of previous uses of the site and its neighbours together with other environmental features. The extent of our enquiries and the results are described in this report at [xx].’

c. ‘Our enquiries, described in this report at [xx], have provided no evidence that there is a significant risk of contamination and the property is unaffected by other environmental features. Accordingly you have instructed us to assume that no contamination exists in relation to the property and that other environmental features should be disregarded. A purchaser in the market might, in practice, undertake more extensive investigations than those undertaken by us. If those further investigations were to reveal contamination and other environmental issues, then this might reduce the value now reported.’

d. ‘Our enquiries (described in this report at [xx]) have provided evidence that there may be a risk of contamination or other environmental features which may impact on the property. Accordingly, we recommend that further investigations be undertaken by and on the advice of a suitably qualified and insured specialist firm of chartered environmental surveyors.’

e. ‘You have not accepted our recommendation to appoint specialist chartered environmental surveyors and have instructed us to make a special assumption that no contamination or other environmental feature exists.

f. ‘No indications of past or present contaminative land uses or other environmental features were noted during the inspection. Our inspection was only of a limited visual nature and we cannot give any assurances that previous uses on the site or in the surrounding areas have not contaminated subsoils or groundwaters. In the event of contamination being discovered or if it transpires there are other environmental features specifically affecting the property, further specialist advice should be obtained. You are advised to ensure that your legal adviser takes up the usual enquiries on your behalf, in respect of possible contamination or environmental issues, prior to entering into any commitments.

g. ‘Indications of potential contamination [and/or environmental features] were noted during our inspection (as reported elsewhere in this report at [xx]) and we recommend that further investigations be undertaken by a suitably insured and qualified chartered environmental surveyor to determine the extent and nature of the contaminants and the likely costs of remediation.’

See also Part 12.
4 Reflecting contaminated land and other environmental factors in valuations

4.1 Introduction

4.1.1 When a valuer is approached to provide a valuation service, he or she is recommended to consider whether contamination, or other environmental features, or the potential for land to be contaminated, are factors that need to be taken into account. If the valuer is not going to take these into account, this should be clearly stated.

4.1.2 Where a valuer wishes to (or has to) provide a valuation service with caveats, or with the exclusion of or limitations on liability, these must be incorporated into the terms of engagement. See Section 4.2.5 below for a detailed discussion of this.

4.2 The Red Book requirements

4.2.1 The RICS Valuation Standards (the ‘Red Book’) set out various reporting requirements concerning property that may be contaminated or adversely affected by environmental features, and with regard to reporting on the consequences and the effect on value of this.

4.2.2 Appendix 2.2 (e) and (f) of the Red Book provide information and guidance on assumptions to be made by the valuer concerning contamination, hazardous substances, and environmental matters.

4.2.3 Practice Statement 5.1.5 highlights many matters that may become apparent during the inspection of the property and may have an impact on the market’s perception of the value of the property. These include environmental and contamination matters.

4.2.4 Contamination and environmental factors may become apparent during the course of an inspection of a site. Where it is used they can be recorded on the relevant property observation checklist (as set out in Appendices A-C of this guidance note). They should be brought to the client’s attention and, subject to the terms of engagement, further instructions sought.

4.2.5 The valuer should incorporate into the terms of engagement (see Red Book, PS 2.1) any provisos with regard to the extent of investigations into environmental and contamination matters. Where a formal environmental report is not to be provided, the comment could be along the following lines: ‘formal environmental enquiries with appropriate conclusions are not provided and either:

a. the property is to be valued on the [special] assumption that there is no contamination and other environmental factors can also be disregarded; or

b. the valuation is to reflect the contents of an environmental screening, land quality statement or similar environmental report prepared by a chartered environmental surveyor reporting upon contamination and other environmental factors and with an estimate of remedial costs or other impacts on the value or marketability clearly defined.’

It may be necessary to confirm or agree with the client that the valuer will make preliminary enquiries (see Section 3.5) to enable a decision to be taken as to whether (a) or (b) above is appropriate.

4.2.6 The following points should be considered, to reflect the client’s instructions, the nature of the property and the basis of the valuation.

- Where, before the inspection there is no indication of contamination or other environmental impediments, the property can be valued on that basis with a suitable caveat of the type set out in paragraph 3.7.6 above.

However, should the valuer’s inspection – or normal enquiries – reveal the possibility of contamination or other environmental features, then these should be reported, and the client’s attention drawn to the possible impact on the valuation. It is recommended that the valuer uses the relevant property observation checklist. An appropriate caveat can be adopted as set out in paragraph 3.7.6 of this guidance note.

- Where there is evidence of contamination and the cost of remediation has been estimated by experts with appropriate experience who may be chartered environmental surveyors, then this information can be referred to, and reflected as appropriate, in the valuation. A suitable caveat should be used, in accordance with paragraph 3.7.6 of this guidance note.
Where there is evidence of contamination (for example, recorded in the property observation checklist, but its extent is not established for reasons such as absence of technical skills, the time available or cost), the valuer may decline the instruction or negotiate an acceptable basis for undertaking the work, such as making and agreeing appropriate valuation assumptions, and making these clear in the report. The wording set out in paragraph 3.7.6 is recommended.

Any apparent evidence of possible contamination arising from property nearby should be noted and considered. The impact of environmental impediments should also be observed. This should be recorded on the appropriate property observation checklist (see Appendices A–C).

Costs (subject to certain tax provisions and brownfield tax relief, together with available grants or other fiscal incentives) should be considered by the valuer and/or the chartered environmental surveyor, with a focus on the following matters:

- the clean-up of on-site contamination and associated requirements, the liability for this, and the ability to pay of the person liable;
- measures for effective contamination control and remediation, and management measures;
- penalties and civil liabilities for non-compliance;
- environmental indemnity insurance for the future. The cost of this insurance may require the involvement of a chartered environmental surveyor or a specialist insurance broker. Care must be taken not to misrepresent the terms of such insurance;
- compliance with legal obligations relating to migration of the contamination to adjacent sites, and the prevention of this in the future;
- the control and migration of the contamination (on or off) the site; and
- the regular monitoring of the site.

See also Part 12.

Remediation

4.2.8 Where remediation may not take place for many years, usually after the process has ceased or it is related to the use of the site after it has been closed, it is important for the valuer to consider the provision of a sinking fund.

4.2.9 The Environmental Liability Directive may require significant work to be undertaken to the land or adjacent property, if it is found that environmental damage is being caused. The Environmental Liability Directive, as transposed into UK law, requires land to be restored to its natural state.

4.2.10 Valuers should also consider consulting Valuation Information Paper No 12, Valuation of Development Land, if a residual valuation is being considered.

Leasehold acquisitions

4.2.11 The implications of contamination and environmental factors for leasehold acquisitions also require careful consideration. Both repairing obligations, and the need to comply with all statutory notices (which may include a notice under Part 2A of the Environmental Protection Act 1990), could have serious implications for a lessee’s leasehold interest.

Sustainable buildings

4.2.12 There is an increasing trend in the marketplace to benchmark buildings as being sustainable to enhance the potential to let the accommodation or to facilitate its disposal. Surveyors should be aware that there is no recognised standard definition of what is a ‘sustainable’ building, or indeed a uniform way of measuring sustainability in buildings. As a contribution to this process, RICS has introduced a sustainability survey, set out in Section 11.10 of this guidance note, as one way of assessing buildings from a sustainability point of view. For further details on this subject, please refer to the RICS Foundation publication, Sustainable Property: A Premium Product?, produced by Kingston University.

Green leases

4.2.13 Surveyors should be aware of a new trend emerging, in the form of so-called ‘green leases’. This is where landlords and tenants adhere to specific standards, such as energy consumption and recycling. The purpose is to create a more sustainable building and for clients to understand what a building will cost over the life cycle of its occupation.
Valuing for financial statements

4.2.14 Where a valuation for a financial statement is on the basis of market value (see PS 3.2 of the Red Book), all the factors noted in this guidance that may impact on that value will be considered.

4.2.15 Where a valuation is on the basis of existing use value (EUV, see UKPS 1.3), it may be appropriate for the valuer to ignore a factor that would affect market value but would not be a characteristic of a replacement. For example, in UKPS 1.3, paragraph 5.1:

‘where a property is known to be contaminated, but the continued occupation for the existing use is not inhibited or adversely affected, provided there is no current duty to remedy such contamination during the continued occupation’.

4.2.16 Further information on the application of EUV in these circumstances is contained within Valuation Information Paper No 1, Valuation of Owner-Occupied Property for Financial Statements.

Stock Exchange prospectuses or circulars

4.2.17 The Stock Exchange valuation requirements are set out in UKPS 2.1 and Appendix 2.1.

4.2.18 Particular care needs to be taken with regard to environmental factors, in circumstances where the surveyor’s advice might be incorporated in listing particulars or prospectuses being prepared in connection with a public offer of shares. Under s. 90 of the Financial Services and Markets Act 2000, strict liability is imposed on any person who is responsible for any prospectus listing particulars, in respect of any untrue and misleading statement or omission that causes any party who has acquired the securities in question to suffer loss.

4.2.19 In the event that valuation advice is incorporated in any prospectus or listing particulars with the surveyor’s authority, the surveyor will fall within the ambit of these provisions, and will be strictly liable in respect of them. The significance of this is that it will be sufficient for a third party to prove that the statements were untrue or misleading; they will not need to prove fault on the surveyor’s part to establish liability.

Residential mortgage valuations

4.2.20 Where a mortgage valuation is not provided on a lenders standard forms the RICS Mortgage Valuation Specification will apply.

4.2.21 Although the specification does not require a record of any contaminative or environmental features, an observation of any feature, considered suspicious or significant by the valuer and likely to materially affect value, should be recommended for further investigation following suitable enquiries.

4.2.22 The key matters for the valuer to take into account, with regard to the above, are ‘significant environmental factors’, ‘subsidence’ and ‘flooding’.

4.2.23 The valuer may make certain assumptions, that need not be verified, unless made specific by an express statement in the report. Paragraph 5.4.1(c) of the specification gives an example of such an assumption:

‘that no deleterious or hazardous materials or techniques have been used, that there is no contamination in or from the ground, and that it is not landfill ground’.

4.2.24 Notwithstanding the above, valuers are reminded that if they observe contamination or other environmental factors in a residential building that may have a material bearing on the value of the property (perhaps emanating from oil-fired central heating sources, or even from adjacent uses), then they are recommended to record this. They are recommended to include this in their notes (UKPS 3.2.4) which may incorporate the content of the property observation checklist in Appendix C.
5 Environmental factors that may affect valuation

5.0 Introduction

5.0.1 UK GN 1 in the Red Book refers to some factors that commonly can have an impact on the value of a property interest. These are for guidance only and should not be regarded as a comprehensive list of all matters that need to be investigated or reflected in every situation.

5.0.2 Valuers are reminded that while many information sources are property-specific, there are many that are not, and they may give only a generalised picture as to the property relating to a wider area. Therefore the valuer needs to take great care in considering the potential impact on the specific property and where appropriate, make clear the limitations of the information relied upon in the valuation report, remembering at all times their professional limitations and the obligations of the professional indemnity insurance. Matters to be considered include:

- contaminated land;
- asbestos;
- invasive species;
- flooding and flood risk management;
- high voltage overhead transmission lines;
- telecommunications base stations and telephone masts;
- mineral workings;
- shallow mining subsidence;
- natural subsidence risk;
- radon affected areas;
- Environmental Liability Directive;
- ozone-depleting substances.

5.1 Contaminated land

5.1.1 Preceding parts to this guidance note outline that contaminated land, environmental risk and sustainability play a significant part in the valuation and economic well being of all types of property and tenure. It is important that these issues are all properly articulated during the course of any valuation and the limitations of advice properly set out in the valuation reports. It is important to remember that a surveyor should at all times be conscious of the limitations of their professional expertise and use appropriately qualified assured chartered environmental surveyors where appropriate.

5.2 Asbestos

5.2.1 Asbestos-related matters are of major significance to surveyors. Failure to understand or communicate the risks arising from exposure to this material, which is often found in buildings, can have potentially life-threatening consequences, and as such they command priority in the way in which they are addressed. Asbestos needs to be identified and the issue resolved at the earliest opportunity.

5.2.2 The commercial and economic losses that may be suffered by any property owner or occupier need to be fully understood. The following matters need to be considered:

- emergency or unplanned stoppage of production and/or cessation of services;
- evacuation of a building or part thereof, including the costs of the provision of temporary alternative accommodation and facilities;
- loss of immediate income due to closure or boycott by customers;
- strikes or walk-outs by employees or occupants
- adverse publicity;
- reduction in value or rental income;
- loss of liquidity of asset (difficulty in selling, leasing or licensing the premises, or inability to do so);
- costs of remedial works (removal or treatment and de-contamination);
- financial responsibility for injured employees or other parties;
- criminal prosecution (leading to substantial fines and even imprisonment); and
- possible civil damages for negligence.
5.2.3 In dealing with asbestos, it is incumbent upon the chartered surveyor to strike the right balance when advising clients. Taking an overly-cautious approach is as dangerous as underplaying the issue. The chartered surveyor must take the issue of asbestos seriously.

5.2.4 As a minimum, every RICS member, whether acting in the capacity of an inspector, owner, manager, occupier or advisor on buildings and land, must be aware of the health and other implications of asbestos, the statutory obligations imposed upon various parties in relation to asbestos, and the regulatory requirements, in order to be able to provide the necessary professional and impartial advice to enable confident and expert assistance to be sought and given.

5.2.5 It is strongly recommended that the RICS guidance note, Asbestos and its implications for members and their clients (second edition) is consulted in accordance with this, placing health and safety at the centre of the surveyor’s obligations.

5.3 Invasive species

5.3.1 The three main non-native invasive plant species in the UK are Japanese knotweed (Fallopia japonica), Himalayan (Indian) balsam or purple stinky (Impatiens glandulifera) and New Zealand pygmyweed (Crassula Helmsii). Other notifiable plants and weeds include giant hogweed, ragwort and azolla.

5.3.2 Japanese knotweed is a rampant non-native invasive species which can cause physical damage to buildings and hard surfaces. Under s. 14(2) of the Countryside and Wildlife Act 1981 it is an offence to cause this plant to grow in the wild. Failure to dispose of any material containing Japanese knotweed may also result in prosecution under this Act and under ss. 33 and 34 of the Environmental Protection Act 1990. Further information can be obtained from the Code of Practice for the management, destruction and disposal of Japanese knotweed produced by the Environment Agency. Disposal of Japanese knotweed falls within the meaning of ‘controlled waste’, as set out in Part 2 of this guidance note.

5.4 Flooding

5.4.1 Flooding has a significant affect on the value of land and property. Surveyors are expected to be aware as to how flood issues affect property. Severe flooding in certain areas of England in 2007 cost the economy approximately £3 billion. These floods were not isolated incidents, since the decade saw other major flood events which had significant effects on land and property, as follows:

- The autumn of 2000 was the wettest since records began in 1766. The most extreme rainfall was in October of that year, and resulted in extensive flooding. UK insurance claims arising from that season’s floods came to approximately £1 billion.
- Many of the same areas flooded again in early 2003.
- During November 2009 the Cumbrian fells suffered a significant rainfall event resulting in 900 residents and business being evacuated from Workington and Cockermouth. The Northside bridge in Workington was washed away resulting in the tragic death of a Police Constable, an additional 16 bridges were closed as a result some of them were also found to be structurally unsound. The damage will take years to repair and take millions of pounds on top of the emotional and financial stress faced by the community.
- Another extreme event took place in January 2005 when 100mm of rain fell around Carlisle in Cumbria. The rain was so intense that the surface water drainage could not cope and flooding occurred. The flood caused local power cuts and interrupted both the terrestrial and mobile phone systems.
- In the summer of 2004 a flash flooding occurred in Boscastle, Cornwall, when approximately 20cm of rain fell in just four hours. More than 150 people had to be airlifted to safety and 50-60 cars were washed away. Approximately £50 million worth of damage was caused.
- During a weekend heat wave on the evening of Sunday 19 June 2005, a similar event in the North Yorkshire Moors affecting the villages of Helmsley, Hawnby and Thirby was caused by 2.7cm of rain falling in just 15 minutes. The floodwater was approximately 2m deep in some areas, carrying cars and bridges away with it.
• It was estimated in 2004 that the annual cost of damage arising from flooding and coastal erosion would be approximately £1.4 billion across the UK. Climate change is expected to increase the incidence of flood events in the future, and the annual cost of damage arising from them. One report estimated that the average annual cost of flooding and coastal erosion would rise to as high as £27 billion a year by 2080.

5.4.2 The Environment Agency’s flood map for England and Wales is published on the internet at www.environment-agency.gov.uk. There is also a 24-hour Floodline service on 0845 988 1188. By clicking on the map it is possible for the surveyor to find out more detailed information on the probability of flooding for a particular area. Please note that this is postcode-generated and not property-specific. The information is divided into three probability bands, however, and is also used by the insurance industry. It shows the probability that land, not individual properties, will flood. The three bands of classification are as follows:

• Low: the chance of flooding in any year is 0.55 (1 in 200) or less.

• Moderate: the chance of flooding in any one year is 1.3% (1 in 75) or less, but greater than 0.5% (1 in 200).

• Significant: the chance of flooding in any year is greater than 1.3% (1 in 75). The policy of the Association of British Insurers is that they will not guarantee to provide cover in all circumstances. In low and moderate areas where the Environment Agency data indicates that the annual probability of flooding is less than 1.3% (1 in 75), taking flood defences into account, ABI members will offer flood cover in the normal way on buildings and contents policies to home owners and small businesses. This is also the case where flood defences will be built or improved to standard within five years. ABI members will also continue to provide cover to existing policy holders provided a standard protection from flood protection offered is 1.3% (1 in 75) chance or better.

5.4.3 However, where no improvements in permanent defences are planned or feasible, and the annual chance of flooding is more than 1.3% (1 in 75), insurers will not guarantee to provide cover in all cases. Where there is a history of flooding, and in areas where the likelihood of flooding is significant and no flood defences are planned, insurers will use their best endeavours to work with policy holders on a case-by-case basis to establish what action they, the Environment Agency and local authorities can take to enable cover to be continued.

Flood risk management – understanding the issues

5.4.4 The Environment Agency website and a postcode-based search to locate an area is generally where the story begins. For the purposes of illustration, York is being used as an example of an urban area which is prone to regular flooding, both in the urban conurbation and in the surrounding rural communities.

5.4.5 The following extract is from the Environment Agency website showing the city of York. The Environment Agency indicative floodplain maps provide a general overview of areas of land in natural floodplains at risk from flooding from streams, rivers and other water courses as well as the sea. They use the best available historic flood records and computer models of river flows to indicate where there may be a likelihood of an area flooding.

Figure 2. © Crown Copyright. All rights reserved. Environment Agency.
5.4.6 The Environment Agency's flood mapping has an inherent weakness, in that it is not property-specific and does not indicate the risk of flooding from other sources, such as groundwater, pluvial flooding (from a rainfall event) and dam break. It provides only a crude risk assessment, lacking understanding of key parameters such as friction coefficients, absorbency rates and drainage density. The Environment Agency acknowledges that the method it uses to produce its flood risk maps is generalised and does not take flood defences into consideration. As such, the flood outlines produced by the Environment Agency can only be taken as a rough guide.

5.4.7 The Environment Agency will freely admit that its flood mapping is not a precise science. However, more sophisticated models exist, which consider the more technical factors in flood risk mentioned above and also other types of flooding (other than just rivers and the sea) which must be considered in order to get a true picture of flood risk for any given property or area. A further limiting factor with the Environment Agency flood data is inaccuracies resulting from post code searching and the relatively small scales at which its data is designed to be used — typically between 1:20,000 and 1:100,000.

5.4.8 The following illustration uses the same data from the Environment Agency, but this time it has been replicated on mapping data supplied by the Ordnance Survey for the whole United Kingdom. This is known as OS StreetView and OS MasterMap, which are designed to be used at much larger scales and higher spatial resolutions, giving greater accuracy to the data and enabling it to work at the individual property level.
5.4.9 The difference between MasterMap and the Environment Agency data is that MasterMap can zoom into specific areas, down to the individual property, as opposed to the postcode level. Figure 6 shows what the representation would look like if a postcode is drilled into. Clearly it can be seen that part of the postcode area is liable to flood, and half isn’t. However, looking at York overall, the situation is far more complicated.

5.4.10 Figure 7 highlights flooding from rivers, but this time greater account is taken of topography, more precisely excluding buildings which are above the floodplain area. This provides information on the likelihood of flooding in any given year, or the frequency at which flooding could be expected, however you choose to interpret the risk. The data gives return periods for one in 75 years, one in 100 years, 1 in 200 years and 1 in 1000 years. However, this is only part of the picture.

5.4.11 One thing the Environment Agency does not take into account is the risk from flooding due to exceptional seasonal groundwater levels, for example in chalk aquifers. This is of relevance to properties which are at a lower elevation than the local water table, and therefore at risk from groundwater flooding as distinct from flooding from any river or stream. While not as common as fluvial flooding, the impacts can be both unexpected and equally devastating. There is no such flood risk in York, so Figure 8 uses a neighbouring community to the west of Bridlington to illustrate an area at risk from groundwater flooding.

5.4.12 During the 2007 flood event, part of the reason why large communities where inundated was due to surface water runoff. This is known to as ‘pluvial’ flooding. A great deal of land is naturally vulnerable to surface water or pluvial flooding. If it is assumed that there is a significant rainfall event of a 6.5-hour duration, it is possible to model the effect of surface water flooding in many areas.

5.4.13 Figure 9 focusing on York highlights that many more areas surrounding York as well as within the city centre are at risk of pluvial flooding then would otherwise of being appreciated from simply looking at the Environment Agency’s flood plain map. Significantly, modern urban drainage systems were typically built to deal with 1 in 20 or 1 in 30 year flooding events. However, many urban drainage systems in the UK are considerably older, and a flooding event following a 1 in 5 year rainstorm is not uncommon.
5.4.14 This model is the world’s first large-scale mapping of surface water risk, and has been licensed by the Environment Agency for emergency planning purposes. The map includes four bands indicating areas of increased natural vulnerability to surface water flooding. These bands are obtained by extracting data based upon flood depths of:

- less than 0.1 metre;
- metre (less likely to flood);
- 0.3 metre;
- 1 metre or greater (more likely to flood).

5.4.15 As a consequence, it is possible to determine the rate of flow and the likelihood of damage, and therefore the amount of premium given to any specific property. Figure 9 highlights that many more areas surrounding York as well as within the city centre are at risk of pluvial flooding than would otherwise be appreciated from simply looking at the Environment Agency’s floodplain map.

5.4.16 If this is viewed at a specific property level, it is possible to highlight where flooding is likely to run off along roads and thereby into people’s gardens and homes. The previous illustration shows how this can be looked at on a property-by-property basis. While the data for surface water flood risk is only available for towns and cities in the UK, it is precisely these urban areas which are most likely to be affected by pluvial flooding.

5.4.17 A further, if arguably more remote, issue is the impact that would ensue from the failure of a dam wall, particularly as a result of a significant rainfall event. As an instance of this, immediately after the 2007 floods the Ulley Dam in South Yorkshire was close to collapse, which would have caused devastation downstream along the River Rother and into Rotherham itself. Figure 10 highlights the impact upon a small rural community which would result from a small reservoir failing. The amount of property and the area of land affected is proportionately larger than the original reservoir itself. Imagine what this could look like in an urban area. The area of Bradford has been selected for this example, as there is a large number of reservoirs in the area. The potential path should any of these dams break is evident. Note that the centre of Bradford itself would be at risk.
Further information

5.4.18 Surveyors are reminded that they are expected to be aware of flooding issues which may affect the property. It is vitally important that appropriate records are examined to ascertain whether flood risk has a material bearing on the land and property in question, subject of course to the instructions provided by the client, but nonetheless valuers need to be mindful as to their duty of care to them.

What surveyors should be looking for

5.4.19 To assess the likelihood or probability of flooding affecting a property, the surveyor should first consider the surrounding area:

- Is the property near a river, stream or ditch?
- Is the land in a hollow or at the bottom of a hill where flood water could collect?
- Is the area at risk from flooding from the sea?
- Is the area at risk from groundwater flooding?
- Do river or coastal flood defences protect the property?
- Has the property ever had a flood warning?

5.4.20 The surveyor could also consider gathering as much historical information as possible on any flooding in the area in question.

- How many floods have occurred in the area to the specific knowledge of the surveyor in the past, and what were the flood laws in relation to that property? The client can be informed that the surveyor has learned of flooding of that property and is aware of previous floods that happened in the past.
- What was the source of that flooding? For example from the rivers, the sea or localised flooding, from blocked or overloaded drains or sewerages?
- Is the property protected by existing river or coastal flood defences? Have there been any recent improvement works that may have reduced the flood risk, and are there any flood protection works planned?

5.4.21 There may be situations where surveyors need to advise members of the public to prepare a flood plan, not only to ensure that the property is more resistant to flood, but also to be aware of what immediate steps need to be taken to protect occupants from ill-harm. Information relating to preparing a flood plan can be found on the Environment Agency website.

5.4.22 Flood water can finds its way into properties through a variety of routes, including:

- ingress around closed doorways;
- ingress through air bricks and up through the ground floor;
- backflow through overloaded sewerages discharging into the property through ground floor toilets and sinks;
- seepage through external walls;
- seepage through the ground and up through the ground floor;
- ingress around cable entrances through external walls.

5.4.23 It is therefore important, if a surveyor is advising a member of the public or a business concerning the impact of flooding on their premises, that they identify the potential points of entry. Flooding routes will depend on the type of construction, the underlying ground conditions and the flood depth.

5.4.24 Properties with suspended floors normally have air bricks below ground floor level, to allow the under-floor void to be ventilated. Other wall vents above the ground floor are likely to be present if there are gas appliances are in the room. If sinks and downstairs toilets are located below the potential flood depth, it is possible that flood water will flow back through the sewers and into the property, unless non-return valves are installed.

5.4.25 Seepage through the external walls will depend upon the flooding duration and the type of construction and condition of the walls. Water will tend to find its way through weak points such as cracks and voids in the mortar jointing, brickwork or rendering. For semi-detached and terrace houses it is important to remember that flood water may also seep through party walls with neighbouring properties above and below floor level.

5.4.26 Depending upon the permeability of the ground under the property, flood water may seep through the ground and up through gaps or cracks in floors or other weak points. The likely rate of seepage is difficult to anticipate, as this will depend upon the type of ground, the duration of the flooding and the construction of the property.
5.4.27 If the property has been flooded in the past, the occupants may already know where the entry points are, and it is recommended that these are targeted first, before any other measures to reduce the impact of flooding are undertaken.

5.4.28 Other measures that could be taken to improve the flood resistance of the property could include:

- Dry-proofing, including movable flood protection barriers for doorways, low-level windows and other openings, that could be put in place before the arrival of flood waters, and the installation of non-return valves on sewers, to prevent backflow.

- Wet-proofing measures, including the use of flood resistant building materials within walls and floors and other parts of the structure, and the raising of electrical wiring above anticipated flood levels.

5.4.29 RICS are publishing a consumer guide on flood risk, due to be released in 2010.
5.5 High-voltage overhead transmission lines

5.5.1 A great deal of research has been undertaken into the effect of electromagnetic fields and their impact on property values as well as occupier health. It is clear that extrapolating data in respect of valuation is extremely difficult and will depend upon the nature of the occupation as well as the electromagnetic facility nearby.

5.5.2 In the UK, higher voltage transmission normally takes place over the distribution system at 11kV and at 50Hz. It is converted to 415 volts by local area substations in order to link to the domestic electricity supplier. There are alleged health risks attributed to overhead power cables, generally relating to the two radiation fields that surround them – electric fields and electromagnetic fields. On the basis of the available literature, the electromagnetic field has been the primary concern. The strength of an electromagnetic field varies with its distance from the source.

5.5.3 In 2004 the National Radiological Protection Board (which has been part of the Health Protection Agency since 1 April 2005) clarified its position on electromagnetic fields and highlighted that prolonged low-level exposure to electromagnetic radiation (EMR) across the range 0-300GHz may be implicated in the development of long-term health effects, in particular cancer. Recent epidemiological and biological studies have been reviewed in reports by the Independent Advisory Group on Non-Ionising Radiation (AGNIR). These concluded that there was no firm evidence of adverse health effects arising from the electromagnetic fields (EMFs) to which people are normally exposed. However the NRPB did report that ‘there is some epidemiological evidence that time-weighted average exposure to power frequency magnetic fields above 0.4µT [microteslas] is associated with a small increase in the absolute risk of leukaemia in children from about 1 in 20,000 to 1 in 10,000 per year. On a relative scale this corresponds to a doubling of the risk.’ They added that, ‘Such exposures are seldom encountered by the general public in the UK and the raised risk - if it were real - would correspond roughly to an additional two cases of childhood leukaemia per year in the UK, compared with an annual total of around 500 cases.’

5.5.4 In the light of these findings and the requirement for additional research, the need for precautionary measures is being considered by government. The Department of Health set up SAGE, the Stakeholder Advisory Group on ELF EMFs (extremely low frequency electromagnetic fields), to explore the implications and make practical recommendations for a precautionary approach to power frequency electric and magnetic fields.

5.5.5 If, when a valuation is carried out, there is cause for concern over the strength of a field, an appropriate specialist or chartered environmental surveyor should be consulted. The electricity supply company may be willing to measure particular field strengths for the consumer.

5.5.6 Even if proof is found to the effect that high-voltage overhead transmission lines have no negative effects on human health, perceptions of risk may continue, and may be reflected in property values.
5.6 Telecommunications base stations and telephone masts

5.6.1 All telecommunications base stations are registered with the Radiocommunications Agency. The Agency covers stations that are not secret, have a power level above 17dBW or are greater than 30 metres in height. Both actual and proposed sites are included. Base stations do not necessarily comprise a free-standing mast – they might equally consist of an antenna attached to an existing building or other structure. There is a perceived risk of problems associated with these features, but there is no definitive evidence to demonstrate direct health problems. These features should be treated by the valuer in the same way as high-voltage overhead transmission lines (see Section 5.5).

5.7 Mineral working

5.7.1 Historic mineral workings exist in many parts of the country and are not limited to the traditional coal-producing regions. Mineral workings can have a material impact on buildings and land. In addition, many facilities have also had contaminative uses in close proximity.

5.7.2 Coal mining is potentially a contaminative land use. Many areas are affected by past, present or possible future surface or underground coal-mining activities. Although there often remains little in the way of surface evidence to indicate that coal mining once took place, this can be misleading. In many places there is a substantial heritage of abandoned workings, shafts, adits, former spoil heaps and pit heads, with little, if any, evidence still visible above ground. In addition to surface working activity, many coal mines included other operations, such as the production of coal tar, town gas and other chemical processes associated with gasworks.

5.7.3 In a coal-mining area there may be the risk of subsidence, and the danger of collapse from old mine workings. Problems may also arise from the existence of known, or unknown, abandoned mineshafts. A particular problem relates to past enquiries of the appropriate authorities relating to the existence or location of old and abandoned shafts. The search parameters now applied may differ from those used for previous enquiries, and searches now may reveal the existence of old shafts, when earlier searches did not.

5.7.4 Other problems include the possibility that voids may migrate, over the years, to the surface. There may also be the risk of emissions of mine gas and discharges of contaminated mine water.

5.7.5 The Law Society produces a directory of cities, towns and villages that may be affected by mining activity. When purchasing a property in a coal-mining area, it is recommended that a coal-mining search is obtained from the Coal Authority to establish whether there are any past, present or intended mining activities that may have caused or may cause damage to the property. The replies given on the search are based on map data from the Authority, covering 1-km areas. Other providers of environmental information also provide information about coal-mining activity.

5.7.6 For the reasons given above, past, present or future coal-mining activity can all have an effect on value. Valuers are expected to make themselves aware of any parts of their areas of operation where there may have been past mining or other minerals activity.

5.8 Shallow mining subsidence

5.8.1 Shallow mine or mineral workings can affect property in a significant way. Surveyors are therefore expected to acquaint themselves as to how this might affect the area in which they operate, and the specific property in particular.

5.8.2 The data used for reporting the risk of subsidence from shallow mine workings is derived by the British Geological Survey through analysis of geological maps and maps of mine workings, and through their own extensive local geological knowledge and expertise.

5.8.3 The British Geological Survey defines shallow mining as workings within 40 metres of the ground surface. Earlier workings tended to be shallow. These often followed the ‘pillar and stall’ method, in which the surface was left supported by columns or pillars of coal. This has resulted in voids and old roadways remaining in existence under the ground. By contrast, later workings usually adopted the ‘longwall’ mining process, which allowed a controlled ‘collapse’ of the surface above the workings, with few, if any, voids remaining.

5.8.4 Valuers should be aware of the risks of subsidence posed by shallow mining. In general, shallow mine workings have a greater potential for generating severe ground movement at the surface than deeper workings. However, although shallow mining can cause ground movement, it will not necessarily cause building movement. This will depend on the type, condition and construction of a building and other influencing factors particular to the site.
5.9 Natural subsidence risk

5.9.1 Natural hazards can also cause ground movement. Such hazards include swelling clays, unstable slopes, ground dissolution and compression, and relate directly to the conditions below ground level, being inherent in the rocks and soils on which houses are built. It is possible for these hazards to be exacerbated or subdued by the interaction of other ‘above ground’ factors, including vegetation, the availability of water, and human activities. The impact of such hazards also depends on the type, condition and construction of the buildings in a particular area. The British Geological Survey has valuable data on the subject.

5.10 Radon-affected areas

5.10.1 A ‘radon-affected area’, in the case of existing dwellings, is defined as one where it is estimated that the radon concentration in 1% or more of homes exceeds the ‘action level’. In the case of new dwellings, or extensions to existing ones, the areas where radon protection is required are those where it is estimated that the radon concentration in 3% or more of homes exceeds the ‘action level’.

5.10.2 Radon-protective measures have been required to be installed in new dwellings or extensions to existing dwellings since 1999. The need for protective measures is based on estimates by both the National Radiological Protection Board (NRPB) and the British Geological Survey, on the basis of a combined analysis of geological and NRPB measurement data. This dual data system forms the basis for the Building Research Establishment (BRE) guidance on radon-protective measures for new dwellings (BR211 1999).

5.10.3 The NRPB supplies the data on which replies to enquiries about radon-affected areas are based. These data indicate the probability of radon occurring in the property being searched, based on 5km squares on the Ordnance Survey grid. The replies are intended to help the homebuyer decide whether a radon assessment from the NRPB is required for an existing dwelling. The estimate is based on an analysis of radon measurements in dwellings within the affected area.

5.11 Energy Performance Certificates and Display Energy Certificates

5.11.1 The introduction of Display Energy Certificates (DECs) and Energy Performance Certificates (EPCs) forms part of the implementation in England and Wales of European Directive 2002/91/EC concerning the energy performance of buildings. DECs are required for public buildings which have a gross internal floor space of over 1000sq m, whilst EPCs are necessary for all buildings above 50sq m which have the benefit of mechanical ventilation and are available for sale or rent.

5.11.2 These documents are likely to be increasingly important as landlords and tenants begin to benchmark their properties in terms of energy performance, whereby any deterioration may have an impact on value. There is at present no evidence to highlight the effect on asset value as the certification programme did not become fully enforceable until 4 January 2009.

5.11.3 In Scotland the Scottish government via Scottish Building Standards (SBS) is responsible for the implementation of the Directive. Generally, all public buildings over 1000sq m will need to display an EPC, even if they are not being sold or leased. The implementation date for non-domestic EPCs in Scotland when leased or sold is 4 January 2009. Domestic (residential) properties which are marketed for sale since 1 December 2008 are now required to provide an energy report as part of the Home Report (this will generate an EPC). All rented dwellings are required to have an EPC from 4 January 2009 when they change occupants. Existing tenancies will not be affected. An EPC will be valid for ten years.

5.11.4 Surveyors should be aware that the energy performance assessor or the display energy assessor must be accredited by a recognised body to the relevant level of experience and practice, including chartered environmental surveyors.

5.11.5 Since 1 October 2008 all non-domestic buildings in England and Wales to be sold or let (either as a whole or in part) or if a new building is to be constructed, will require an Energy Performance Certificate (EPC) in accordance with the Energy Performance of Buildings Directive. This requirement was introduced in stages throughout 2008 and provides an energy performance rating for buildings with an associated recommendations report.
5.11.6 The EPC has to be carried out by an accredited energy assessor ideally a chartered surveyor and will require taking detailed records as part of the site inspection. The assessor's attention will focus on elements directly responsible for the energy performance of your building. Areas to be investigated include building construction and age, roof and wall insulation, ventilation and air conditioning systems, boilers, glazing, and lighting.

5.11.7 Once the site inspection is over, the energy performance certificate data is input into a computer database programme which calculates the results and provides a comparison against a reference value for a similar property. The final published report will provide all the energy performance certificate information you will need to improve the energy efficiency of your building. The EPC is then lodged under a unique reference number by the assessor. This is held on a secure database and is valid for 10 years. Should any party require access to the EPC they will require the unique reference number.

5.12 Environmental Liability Directive

5.12.1 The Environmental Damage and Liability Regulations 2009 have significant implications for valuation in terms of potential environmental liability or environmental impairment, and valuers need to be diligent in providing opinions of value where the regulations are likely to apply, and also considering situations where specialist environmental advice is required, for example from a chartered environmental surveyor. The regulations are very far-reaching but as yet new, and their impact on the profession still needs to be quantified. Nonetheless, valuers need to be aware of the regulations and how they may affect the advice that they give in situations where environmental damage, or the immediate threat of environmental damage, exists in relation to:

- water;
- land;
- protected species and natural habitats; and
- sites of special scientific interest (SSSIs).

5.13 Ozone-depleting substances (ODS)

5.13.1 Chlorofluorocarbons (CFCs) were used in building foams until the early 2000s, prior to a total ban from 1 January 2004. Building foams are a significant store of ODS in the UK and occur in a wide range of building products, such as cold store panels or refrigerated warehouses and in some insulation materials used in cavity walls. Though the concentrations of ODS in construction materials vary, they are likely to be present in concentrations that make those materials hazardous when discarded as waste. As the use of these foams began in the 1960s, and the lifetime of the foams is tied to that of the buildings they are a part of, it is likely that increasing amounts of ODS-containing foam will be removed in the course of refurbishment or demolition of buildings.

5.13.2 The Montreal Protocol on substances that deplete the ozone layer set out the requirements for an international treaty designed to protect the ozone layer by phasing out the production of a number of substances believed to be responsible for ozone depletion. The protocol was given effect in Europe by Regulation (EC) No 2037/2000 on substances that deplete the ozone. The ODS Regulations explicitly require the recovery of ODS from certain equipment such as refrigerators and air conditioning equipment, while the recovery of ODS from building foams is currently covered by Article 16(3), which states that substances in ‘other’ products, installations and equipment shall be recovered ‘if practicable’. It does not define what this might mean, or establish clear expectations for implementation.

5.13.3 The UK government has introduced specific legislation to ensure that ODS from fridges is captured using fridge recycling plants; however, there is no legislation in the UK that explicitly requires the capture of ODS from building foams or specifying treatment routes leading to the accidental release of ODS, where present, during the building demolition and disposal process. The ODS Regulations are currently under review at an EU regulation level. At this point in the review of the regulations, a proposal to call for Member States to require recovery of ODS in building foams, where technically and economically feasible, has been suggested which could greatly add to the cost of demolition and disposal as, since July 2006, the Ozone-Depleting Substances (Qualifications) Regulations have required that in the UK (except Northern Ireland) only competent persons may undertake work recovering, recycling, reclaiming or destroying controlled substances. Recovery and disposal of building materials containing ODS would, therefore, become a specialist activity which can only be carried out by regulated persons.
6 Law of Property Act (LPA) receiverships

6.0.1 Those who are appointed as receivers under the Law of Property Act 1925 (LPA) should appreciate that they are accepting personal liability for contamination (and also health and safety) issues, which may continue after disposal of the property. These matters should be drawn to the attention of their professional indemnity insurers.

6.0.2 The Association of Property and Fixed Charge Receivers to which all RICS property receivers have to belong publishes guidance notes in relation to contamination.
7 Building surveying

7.1 It is recommended that chartered building surveyors use the property observation checklists set out in Appendices A-C to record any contamination or other environmental features. Surveyors are reminded to check their professional indemnity insurance and to consider appointing a chartered environmental surveyor when contamination or relevant environmental features are observed on site or in the immediate vicinity. Surveyors should consider the use of environmental screenings, land quality statements or other intrusive surveys, as appropriate (see Part 11).

7.2 When advising a prospective purchaser with an interest in any property, the surveyor should consider whether to recommend that at least initial investigations by specialists into possible contamination and environmental factors are undertaken.

7.3 Similar considerations apply to stock condition surveys and inspections for other purposes.

7.4 The demised premises in any particular instance are likely to include the ground upon which a property stands, as well as the sky above it. Accordingly, it is important that the ground is examined as well as the structure. This may be important when preparing the following:

- schedules of condition that include the ground, so that the leaseholder may be sold the rights to enter the property with information about ground conditions; and

- schedules of dilapidation, where the tenant’s occupational use has caused ground contamination and the liability may revert to the freeholder unless it is cleaned up. (However, without a prior survey it may be difficult to delineate who is responsible for the clean-up of any contamination, particularly if this is not obvious.)

7.5 The building surveyor should also be aware of the effects that other environmental issues may have upon this building and its occupants.

7.6 Surveyors are reminded that the Health and Safety Executive (HSE) has a specific responsibility for enforcing the Health and Safety at Work legislation, as well as associated regulations designed to protect workers in the workplace and others who may be at risk of harm as a result of workplace activities. These regulations include the Construction (Design and Management) Regulations 2007 (SI 2007/320). Before any work is commenced involving construction or development, it may be necessary to carry out a risk assessment in order to identify the risk of exposure to toxic substances. Construction workers should not be exposed to deleterious or hazardous materials during the construction process.

7.7 Surveyors have a critical role to play in avoiding serious accidents, whatever their part in the industry. Surveyors are directed toward the recent RICS online guide to surveying safely. Decisions taken in the boardroom can have as much influence on health and safety as working practices in the office, travelling on business or being at a property or on site. Adequate planning, innovation and best practice, good design, sufficient resources and effective training will provide a better product, more safely and more economically. This guide has been produced by the RICS Health and Safety Forum to help put health and safety first when carrying out the duties and responsibilities of a surveyor. It will also be a reminder of the many aspects of the industry that can be hazardous. Effective health and safety procedures will:

- provide a safer environment for those involved in managing property and construction;

- result in higher productivity; and

- lessen the chance of having accidents or suffering illness.

7.8 To make a difference, and make the industry a safer place to work, all surveyors have to take personal responsibility to make it happen by eliminating or reducing risks, and planning and controlling the risks that remain, to colleagues and the public at large. Health and safety must come first.
8 Commercial property agency

8.1 Introduction

8.1.1 Contaminated land, environmental matters, and increasingly considerations of sustainability, have a bearing on all aspects of commercial agency work – acquisitions, sales and lettings.

8.1.2 In addition to the issues noted with regard to valuation (see Part 4), the most important areas in which such considerations arise relate to:

- the Property Misdescriptions Act 1991;
- the provision of advice on the terms and conditions of leases;
- the impact of any warranties provided by a vendor or purchaser in respect of sales of freehold or long leasehold interests;
- the question of whether contamination or other environmental factors set out in the UK GN1 provides ongoing financial liabilities for the purchaser of freehold interests to comply with planning obligations;
- the question of whether contamination imposes significant obligations within the lease for lessees;
- the purchase of an asset on land which, although not now contaminated or affected by other environmental factors, could be considered as such in the future, as a result of the nature of its historic or existing use, or its environmental setting.

8.1.3 The law regarding the sale and transfer of land that may or may not be contaminated is increasingly complex. In June 2001 the Law Society published its Contaminated Land Warning Card. The details of this are set out in Appendix F, along with the Warning Leaflet on Contaminated Land produced by the Law Society of Scotland, in Appendix G. The conveyancing solicitor is required to undertake environmental investigations in ‘every’ case. Surveyors should be aware that such investigations must be undertaken at the point of acquisition, and must ensure that the purchaser is reminded of this obligation before the property is conveyed. Valuers may also be asked to interpret such information; in this respect, they are reminded of the limits of their professional expertise and experience in such matters, and also the restrictions with regard to professional indemnity insurance (PII). It may be wise to consider employing a chartered environmental surveyor or other environmental specialist.

8.1.4 Surveyors are also reminded as to their obligations set out in UK GN1 in the Red Book so as to protect the interests of the commercial client.

8.2 Acquisitions

8.2.1 In providing advice on the acquisition of property, it is usual to provide a valuation to the potential purchaser or lessee.

8.2.2 In Part 4 of this guidance note advice is given to the valuer with regard to land that is contaminated or affected by a wide range of environmental effects. Acquisition surveyors acting on behalf of purchasers should consider issues of identifying and reporting on contamination as set out in Part 3, and the implications for values outlined in Part 4.

8.2.3 Government policy in this area is to ‘let the informed buyer beware’, and the surveyor should consider whether to recommend, at the least, initial environmental investigations, such as an environmental screening report set out at Part 11 of this guidance note. The Law Society has ensured that such advice will normally be provided by the legal adviser, but it is recommended that surveyors or agents take steps to ensure that the matter has been properly considered by the legal advisers and the client and, if necessary, that a chartered environmental surveyor has been retained to advise on the impact on the property arising from contamination.

8.3 Sales

8.3.1 Surveyors are reminded as to the obligations set out in UK GN1, particularly in relation to inspections and material considerations. A number of key issues need to be addressed alongside contamination and environmental matters at the time of any sale, for instance the Energy Performance Certificate (EPC) which must be made available to any purchaser at the time of the property being placed on the market. Any EPCs should be produced by a competent chartered surveyor who is properly insured and accredited for the level of survey that is being undertaken.
8.3.2 The law in respect of property transactions is outlined in Part 2 of this guidance note. The law regarding the sale and transfer of land that may be contaminated is complicated. There are a number of ways in which land that may or may not be contaminated can be sold safely; one of these is to ‘sell with information’.

8.3.3 When acting on behalf of a vendor, the question often arises as to what extent investigation of contamination should be undertaken prior to placing a property on the market. Depending on the particular market, it may be prudent to undertake at least preliminary investigations before sale. In some markets, purchasers are well advised to carry out their own investigations before completing a transaction. For vendors, the ‘sudden’ discovery of contamination at a late stage in negotiations can be embarrassing, and not in their best interests. Furthermore if it is found that a property is at significant risk of flooding, and that building and contents insurance is not available for the commercial property, this may have a significant impact on the disposal strategy and the corresponding value that the property may yield. It is therefore important that environmental issues should be considered in the round together with contamination.

8.3.4 The costs of an appropriate risk assessment (see Part 11) are in many cases small, relative to the likely sale price of the property, and can therefore usually be justified as a means of early identification of any potential problems with the disposal, notwithstanding that the basic rule of caveat emptor still applies, putting the onus on the purchaser to carry out investigations. Agents need to ensure that they take all due care to verify information provided by clients and contained in sales particulars. An environmental screening is recommended as an appropriate level of service, prepared by a chartered environmental surveyor.

8.3.5 The omission of details of known or suspected contamination in the sales particulars of a property will, per se, infringe the Property Misdescriptions Act 1991. It may, however, be possible for omission to be deemed ‘misleading’ in the event that other parts of the sales particulars are inconsistent with a property that is contaminated. (For example, omitting details of heavy contamination while describing a site as ‘suitable for development’ could be deemed to be contrary to the Act.)

8.3.6 Care should be taken, when replying to enquiries received from potential purchasers during the marketing process, not to provide information about contamination or other environmental issues that cannot be clearly verified and supported by reference to documents or written statements by a chartered environmental surveyor or other suitably qualified, insured environmental specialist, and also not to breach the Property Misdescriptions Act. Opinions as to the existence of or potential effect of actual or suspected contamination should not be given.

8.3.7 When advising vendors on whether to accept an offer, and to comply with best practice guidelines, the surveyor or agent is recommended to consider:

- any investigative work undertaken by the prospective purchaser(s);
- any conditions imposed, or indemnities or warranties required by the parties in relation to contamination; and
- the reasonableness, or otherwise, of any allowance in the purchase price made as a result of actual or potential contamination or other environmental impediments.

8.4 Precautions to be taken before acquiring ownership of land

8.4.1 The surveyor is reminded that government policy remains ‘let the informed buyer beware’ and that due diligence is likely to be required at the acquisition stage on behalf of their client and any funding partners.

8.4.2 Chapter E of the statutory guidance regarding contaminated land (Part 2A of the Environmental Protection Act 1990) contains a section about the precautions to be taken before acquiring a freehold or leasehold interest in land, with specific regard to the recovery of costs of remediation of contaminated land. The expectation inherent in the legislation is that a purchaser will act in a prudent manner. If this does not happen, the purchaser, or some other party, may be liable for remediation. The guidance outlines the various ways in which a purchaser may have acted, in paragraph E.41:

‘In some cases, the appropriate person may have been reckless as to the possibility that land he has acquired may be contaminated, or he may have decided to take a risk that the land was not contaminated. On the other hand, he may have taken precautions to ensure that he did not acquire land which is contaminated.’
8.4.3 The statutory guidance goes on to say, in paragraph E.42, that the local authority should consider reducing its own recovery of costs where a ‘Class B’ person (see paragraph 2.3.14) who is the owner of the land demonstrates to the satisfaction of the authority that:

a. He took steps prior to acquiring the freehold, or accepting the grant of assignment of a leasehold, as would have been reasonable at the time to establish the presence of any pollutants;

b. When he acquired the land or accepted the grant of assignment of the leasehold he was nonetheless aware of the presence of the significant pollutant now identified and could not reasonably have been expected to have been aware of their presence; and

c. It would be fair and reasonable to take into account the interest of national and local tax payers that he should not bear the whole cost of remediation.’

8.4.4 Accordingly, the local authority should take into account whether the appropriate person (who may not be the original polluter or a Class A appropriate person) has indeed been ‘reckless’ as to the purchase. If contamination exists for which the purchaser is not liable, but it is proven that he or she has been ‘reckless’, then he or she may still find him or herself liable for substantial costs of the clean-up operations under the statutory provisions contained in Part 2A of the 1990 Act.

8.4.5 In these respects, the extent to which liability for remediation of contamination remains with the vendor or another party, or passes by law to the prospective purchaser, may be relevant.

8.4.6 Surveyors are also reminded as to the obligation set out in UK GN1 concerning inspections and material considerations. It is important that not only contamination is considered by the surveyor but also any other environmental impediments, including disabled access, fire risk assessment, asbestos, flooding and so on. All of these issues may or may not have an impact on the value of the property being acquired.

8.5 Lettings

8.5.1 The Energy Performance of Buildings Directive, which was phased in from April 2008 onwards and became fully effective from 4 January 2009 necessitates an Energy Performance Certificate for all non-dwellings over 50sq m when property is being either sold or let. One of the key triggers is whether or not the property has mechanical ventilation. Nonetheless before a property is marketed for letting, sub-letting or assignment, an Energy Performance Certificate is likely to be required.

8.5.2 In relationship to contamination and environmental matters, advice to a landlord or a tenant letting or occupying a commercial property should consider precisely the same issues as though a freehold transaction were taking place. It is important that both parties are informed as to the environmental issues associated with the transaction. The law society’s warning card on contamination should also apply to lettings, sub-lettings and to assignments.

8.5.3 It is important when advising a landlord in regard to letting land or property that the terms and conditions of the lease should highlight any liabilities for contamination. It may be necessary to obtain an environmental screening report by way of benchmarking the condition of the property when the tenant occupies it, particularly if they are in a polluting industry requiring extensive controls from regulators. The Environmental Liability Directive may also be of relevance, if the property is near a sensitive ecological site.

8.5.4 Greater consideration is being given to the energy performance of buildings over their life cycle, and there may be a need for a suitably qualified chartered environmental surveyor to carry out regular audits of the building and to assess whether its occupiers are complying with the environmental conditions set out in the lease. They would need to determine whether the targets that were set at the grant of the lease had been met, as this may be a fertile area of dispute in the future.

8.5.5 With any leasehold property it is advisable that a solicitor is consulted as to the effect of any clauses in the proposed lease that could give rise to potential liabilities if the property was found to be contaminated or suffering any other form of environmental impairment. Failure to draw the attention of the prospective tenant to possible liability in respect of environmental matters might be deemed negligent.

8.5.6 In future years the market may view the diminution of value caused by occupier misuse, damaging of property by means of contamination or waste abuse, or as a result of creating a less favourable energy rating, as potential dilapidations.
9 Property development

9.1 Government policy in respect of property development has been to emphasise the need to make use of brownfield sites. With the aim of creating 4.4m new households by 2016, it is the government’s stated intention that 60 per cent of all new housing should be built on brownfield sites:

‘The Government is committed to maximising the reuse of previously-developed land and empty properties and the conversion of non-residential buildings for housing, in order both to promote regeneration and minimise the amount of greenfield land being taken for development.’

Source: PPG3: Housing (paragraph 22).

9.2 It is important to be aware that since 1 April 2007, local planning authorities have been required to have regard to PPS3: Housing as a material consideration.

9.3 The Planning Policy Statement 23: Planning and Pollution Control replaced the remaining parts of Planning Policy Guidance Note 23: Planning and Pollution Control first published in 1994. Waste planning, including operations and the way Waste Management Licensing Regulations 1994 and Pollution Prevention Control Regulations 2002, is now dealt with in PPS 10: Planning and Waste Management and flooding is reflected in PPS 25: Flooding. There are other planning policy statements concerning sustainability and bio-diversity. A discussion of the planning processes in so far as the issues are concerned is beyond the scope of this guidance note, but in terms of contamination, chartered surveyors advising their clients need to address the following issues:

- The controls under the planning and pollution control regimes should complement rather than duplicate each other.
- The presence of contamination on land can pose a risk to human health and the environment which adversely affects or restricts the beneficial use of land, but development presents an opportunity to deal with these risks successfully.
- Contamination is not restricted to land with previous industrial uses. It can occur on greenfield as well as previously developed land, and it can arise from natural sources as well as from human activities.
- Where pollution issues are likely to arise, intending developers should hold informal pre-application discussions with the local planning authority, the relevant pollution and control authority and/or the environmental health departments of local authorities, as well as other authorities and stakeholders with legitimate interests.
- Where it would save time and money, thought should be given to submitting applications for planning permission and pollution control permits in parallel, and co-ordinating their consideration via the relevant authorities.

9.4 PPS25: Flooding highlights the importance of flood risk assessment to the development process, requiring a detailed analysis as to whether properties may be at risk from flooding. This is a material planning consideration, and extensive negotiations are required with all stakeholders to the flood prevention process, including local authorities and regulators such as the Environment Agency and the Scottish Environmental Protection Agency.

9.5 Surveyors should be aware as to their limitations when advising clients in terms of the planning process, which is highly complex and may require the input of chartered planning and development surveyors, chartered environmental surveyors or other appropriately qualified experts as appropriate.

9.6 RICS’ Valuation Information Paper 12: Valuation of Development Land outlines the issues that need to be addressed from a valuation prospective. This involves both the residual and comparable methods of establishing the value of land where a development is of major consideration.
10 Property and estate management

10.1 Introduction

10.1.1 Issues relating to contaminated land, pollution and environmental liabilities may arise in various areas of property management, including:

- management agreements;
- property inspections;
- aspects of health and safety;
- the provision of lease advice; and
- matters of use and occupation.

These are considered in turn below.

Management agreements

10.1.2 Wherever possible, managing agents should include a clause in their management agreements to the effect that they shall not be liable for any loss incurred as a result of the actual or potential existence of contamination or other environmental factors affecting land or buildings, and that the client:

- indemnifies the agent for any costs or actions, howsoever arising, incurred or carried out by tenants, occupiers, management staff, contractors or any third parties, relating to contamination or other environmental issues; and
- undertakes to keep the agent advised of any contamination or other environmental issues of which the client is aware, either at the time of initial instruction or thereafter.

10.1.3 Surveyors are again reminded that notwithstanding the indemnities received from the client for any losses incurred as a result of actual or potential contamination, they will not be able to contract out of their obligations in the criminal courts.

Property inspections

10.1.4 Property managers are not assumed to have particular professional skills in the area of contaminated land, or in assessing other environmental factors. When undertaking property inspections, they should use the property observation checklists attached in Appendices A, B and C of this guidance note to note any activities or uses that could give rise to contamination. These may include the following:

- use(s) by the tenant that may result in contamination;
- signs of leakage from tanks, pipes or similar;
- activity on adjoining land that may affect the management property or land;
- poor waste-management practices, litter, fly-tipping or similar;
- poor storage of hazardous substances, and the use of tanks or drums and the condition of these.

10.1.5 All facts observed relating to such matters (for example, the possible effect on groundwater) should be recorded on the relevant property observation checklist and reported immediately to the client, with appropriate recommendations. The surveyor may also have to report inappropriate activities to a regulator.

10.1.6 When a tenant is undertaking a potentially polluting activity, the landlord and management surveyor are at risk of having ‘knowingly permitted’ the contamination to occur, unless action is taken promptly. Indeed, it has even been suggested that if a lease contains a landlord’s right of entry to inspect, and the landlord does not exercise this, he or she may ‘knowingly permit’ contaminative activity. There is certainly some authority for the view that turning a blind eye to the obvious, or deliberately refraining from enquiry, for fear of the truth, may attract liability. Because of the ambiguity of the phrase ‘knowingly permit’, an owner who could have found out about pollution and done something to stop it, but failed to take those steps, may be deemed to become the polluter, and thereby be liable under Part 2A of the Environmental Protection Act 1990.

Health and safety

10.1.7 Contamination forms an important element of health and safety risk assessments. It is important that the employers of chartered surveyors understand the environment into which their employees are sent, and ensure that they are provided with adequate safety equipment appropriate to the task. The presence of contamination on land or within buildings features significantly within health and safety plans, and is the responsibility of planning supervisors when construction work is contemplated. RICS has published Surveying safely; firms should have their own health and safety policies in place, and which have been communicated to all staff.
**Provision of lease advice**

10.1.8 Management surveyors frequently provide clients with advice on leases with regard to new lettings, variations and lease interpretation. A client’s liabilities in respect of contaminated land can naturally be affected by the parties’ respective lease obligations. For example, it may be appropriate for clauses to be inserted in a new lease to protect the landlord in the event of the tenant undertaking operations that cause pollution. The precise wording of such clauses will be the responsibility of the client’s legal adviser, but management surveyors are recommended to ensure that such issues are indeed considered by their clients and by their clients’ legal and other advisers.

**Use and occupation**

10.1.9 Contamination is naturally more likely to occur through operations on a site with certain types of occupiers. Property managers advise and make recommendations to clients on assignments, under-lettings and changes of use, and hence can reasonably be expected to consider the implications of the nature of the business of the prospective tenant and, if concerns over possible contamination exist, to draw these to the client’s attention at the time of making recommendations.

10.1.10 When inspecting property for the purposes of producing a schedule of dilapidations, surveyors are advised to look for possible damage resulting from contaminative activities carried out by tenants. In the event that possible contamination is identified, surveyors should consider what advice to give about the need for specialist investigations before the schedule is completed and served.

10.1.11 Increasingly, environmental auditing is being undertaken as part of an asset management strategy, and tenants’ activities, from the environmental point of view, need to be kept under constant review. It is recommended that use of the appropriate checklist accompanies all inspections by chartered surveyors at any time. This should also be viewed as fulfilling the needs of sustainable estate management.

**10.2 The leasing and management of industrial buildings**

10.2.1 Research undertaken by Professor Paul Sym and Mike Jayne of Manchester and Nottingham Trent Universities, respectively, has highlighted the importance of initiating appropriate environmental practice procedures when leasing and managing industrial buildings. This research has been used by the Environment and Resources Professional Group of RICS to produce more comprehensive guidance for professionals and practitioners in this area. The following aspects are worthy of consideration.

**Leasing industrial premises**

10.2.2

- When premises have been previously occupied, reference should be made in the leasing particulars to the nature of the previous activities carried out.
- The leasing agent should prepare a file containing copies of all relevant documents relating to environmental compliance, or non-compliance, in respect of previous occupiers.
- Where information is not available, the agent should advise the landlord to commission an independent report as to the environmental condition of the premises. The consultant should be required to have a ‘duty of care’ to an incoming tenant as to the environmental condition of the premises at commencement of the lease.
- Consideration should be given to the recording of environmental information relating to industrial buildings, in the form of a land condition record, environmental screening, similar document or other reports as set out in Part 11, which should be updated every time there is a change in the operations in a building and upon changes in occupation.

**Vetting prospective tenants**

10.2.3

- In addition to the usual financial checks, the landlord or letting agent should request environmental information from prospective tenants including, but not limited to, environmental mission statements, a note of directors' experience and qualifications, and environmental compliance records.
- Tenants should be required to provide information as to any potentially hazardous materials to be stored or used on the premises, including information as to maximum quantities or volumes.
- Tenants should be required to provide information as to any potentially hazardous operations to be carried out on the premises, including an assessment of possible risks and hours of operation.
- Tenants should be required to provide information as to their proposed waste management procedures, including any discharge consents that may be required.
The lease

10.2.4

- Consideration should be given to the adequacy of standard lease clauses with regard to possible environmental hazards. Where necessary, specific clauses should be drafted to cover potential risks.

- For all buildings used for manufacturing operations, leases should contain a requirement for tenants to have an environmental audit prepared by an independent environmental consultant at least once every five years.

- Consideration should also be given to the need for periodic environmental auditing of buildings used for non-manufacturing purposes but where hazardous materials might, from time to time, be stored (for example, general warehouse buildings).

- Provision should be made in leases for tenants to commission, from an independent consultant, a decommissioning audit, to be undertaken in the last year of the tenancy. Provision should also be made for all recommended works to be carried out before the end of the demised term.

Managing industrial buildings

10.2.5

- All leases should make provision for the landlord or the managing agent to undertake periodic inspections of the premises, upon giving reasonable notice – these inspections should preferably be carried out twice yearly.

- Consideration should be given to the need to issue an ‘environmental rule book’ (this is probably more relevant for industrial estates with shared facilities than for solus buildings). Care should be taken to ensure that the rules are not overly restrictive, to the extent that they impair the tenant’s reasonable use of the premises.

- Landlords or their agents should approve any proposed alterations to the buildings, including the specification of materials to be used. Frequent inspections should be made during such works, to ensure that environmental harm is not being caused or concealed.

10.2.6 Surveyors are reminded that similar considerations will apply to commercial buildings, particularly if bad management practices operate. Managing agents should reserve the right within the lease to take appropriate action to put matters right – otherwise, this may give rise to liability on the part of the landlord.

10.2.7 All surveyors are reminded that with the advent of greater understanding as to the energy performance of a building, notwithstanding its historic land use and wider environmental impediment that these need to be accommodated in the leasehold contract in some form. New and more radical lease arrangements may begin to evolve over the next few years, as landlords and tenants come to understand the value of enhancing their estate by means of environmental improvements; so-called ‘green leases’.
11 Risk assessment, site investigations and the services of other professionals

11.1 Professional roles

11.1.1 Contaminated land and environmental matters are unlike many of the other issues that surveyors face. While there is a great deal of published material about the identification of contaminated land, knowledge is constantly evolving. Increasingly, new environmental laws from Europe are likely to affect all aspects of real estate. Where remediation is concerned, there are often no established views or proven methods to adopt.

11.1.2 There is no single profession that has a given right, or is capable alone, of advising comprehensively upon these matters. Surveyors, however, are often centrally placed to guide a client in a realistic manner with regard to a particular property asset at a particular time. RICS has designated those surveyors who can advise on contamination (provided that they have the appropriate experience and professional indemnity insurance – PII) as ‘chartered environmental surveyors’.

11.1.3 Chartered environmental surveyors must demonstrate a high level of professional competence in environmental practice. By the nature of their training, they understand the implications that environmental practice has for real estate consultancy matters. In the opinion of RICS, chartered environmental surveyors form an important bridge between the world of environmental science and the market place.

11.1.4 Surveyors – particularly environmental surveyors – have a vital role to play in the risk assessments and site investigations carried out for clients concerned about environmental hazards and liabilities. They may take an active role in the risk assessment and the investigations themselves, or may co-ordinate the services of the other professionals involved. Below, we discuss the process of risk assessment, the nature of a site investigation, and the roles of those professionals involved.

11.1.5 At a time of growing recognition that climate change is having a material impact upon all aspects of the property lifecycle, chartered surveyors are uniquely placed to advise clients on how to identify, manage and take advantage of the new challenges that sustainable development will bring.

11.2 Appropriately qualified experts and their appointment

11.2.1 A number of specialists may be required to build a team that can undertake a risk assessment. The following are some of the essential characteristics of the various members of such a team:

- the ability to understand and interpret desk studies carried out by others, including those relating to historical land use, statutory registers, and initial walk-over inspections of a site;

- experience of carrying out assessments on contaminated land with similar characteristics to the subject site;

- the competence to undertake laboratory analysis (if appropriate) and a level of proficiency at testing (for example, accredited by the United Kingdom Accreditation Service (UKAS), accreditation under the MCERTS Scheme, or to ISO 14001 standard, as relevant);

- an understanding of the meaning and purpose of the risk assessment, including the future intended use of the land;

- the ability to produce a robust sampling and testing plan, following the guidance given in BS 10175:2001: Investigation of potentially contaminated sites Code of Practice and BS 10381:2002: Soil quality, sampling Part 1: Guidance on the design of sampling programmes and Part 2: Guidance on sampling techniques;

- the ability to produce a land condition record and/or land quality statement (see Sections 11.7 and 11.8) that interprets site data to show any assessed risk and its sensitivity and significance in the context of the client’s requirements;

- the ability to recommend remediation action or other risk-reduction, monitoring and management measures to meet ‘fit-for-purpose’ criteria;

- the ability to interpret technical data and translate this into a form that is understandable to a client;
• the ability to interpret technical data and translate this into a form that is understandable to a client;
• the ability to undertake inspections of industrial and other property and to identify potential environmental hazards, risks and poor environmental practices; and
• the holding of professional indemnity insurance (PII), without pollution exclusion clauses.

11.2.2 The selection of appropriately qualified experts depends entirely on the immediate and foreseeable tasks ahead. As the above suggests, the range of experts required can be extensive. It is suggested that a client should define the services required at specific stages and access the appropriate experts’ services with regard to a set of criteria previously drawn up. It is often advisable separately to identify factual and advisory work. This helps with regard to the passing of information between different consultants over the life-cycle of the property.

11.2.3 The value of the land in question will be a central issue throughout the process, particularly if the advice given is to form the basis of commercial decisions. Cost and value must be drawn together in order to give a rounded view. Having a group of professionals working as a team can prove the most effective solution for clients in this respect. Members of the team can include specialist surveyors, valuers, asset managers, lawyers and appropriately qualified consultants, all integrating their advice.

11.2.4 It will be the project manager's responsibility to give advice on the selection and appointment of the team. The project manager is also responsible for defining and refining the brief, managing the activities of the team, selecting and appointing contractors, and conducting cost control.

11.2.5 The appropriate services should be procured from the relevant professionals for contracted fees and charges. Surveyors should discuss the appropriateness of these services and costs with the client, in depth, in order to ensure that they offer value for money and that the expenditure of resources is timely.

11.2.6 It is essential that surveyors are aware of the risks that may arise with regard to their professional indemnity insurance (PII) policies if they appoint specialists themselves. While it is acceptable to recommend to a client the type of specialist, or the individual specialists who might assist in producing a risk assessment, the client should appoint these directly him or herself. Any contractual relationship that is entered into is thus one between the client and the specialist(s) and not between the surveyor and the specialist(s). Even so, there are dangers attendant on making recommendations to clients on the appointment of particular environmental consultants. If such recommendations are made, the surveyor should advise the client in writing that he or she:

• has no formal association with any firm of environmental consultants;
• does not maintain a list of approved environmental consultants; and
• can provide no warranty or opinion as to the suitability of the consultants for particular assignments.

11.2.7 The client should be independently satisfied that the appointee has the appropriate level of expertise and PII for the purpose.

11.2.8 An appropriate checklist and memorandum of agreement for the appointment of environmental consultants should be drawn up prior to employing an environmental consultant and both (all) parties should consult legal advisors on the matter. These may prove useful if there is a need to appoint an environmental specialist to undertake an investigation for contamination.

11.2.9 Instructions to chartered environmental surveyors or appropriately qualified environmental consultants should put the onus for devising the level of technical investigations on the consultant. The surveyor's role, in conjunction with his or her client, is to ensure that the environmental consultants understand the purpose for which their work is required.

11.2.10 There needs to be assurance from the appropriate consultant that, at the end of the exercise, the report produced will contain sufficient information to enable the surveyor to fulfil his or her obligations to the client – namely, to provide advice in accordance with instructions. It is important, therefore, to ensure that the brief includes instructions to the consultant not only to report the presence of contaminants, but also to indicate the effects their presence may be likely to have on the present or proposed use of the property, together with the need, cost and timescale of any necessary remediation, and the likelihood of any ongoing liability.
11.2.11 The key requirement, from the surveyor’s point of view, is that the advice received consists of clear statements that can be incorporated into a report without the need for personal interpretation. (This applies equally to advice received from lawyers as a result of their enquiries and in respect of any indemnities available under the terms of leases or from third parties.) Chartered environmental surveyors may give professional opinions on environmental risk, and environmental consultants can also provide some clarity on this complex issue. Opinions must not be given by the chartered surveyor independently of the report provided by the experts.

11.3 The examination and assessment of contaminated land: a summary

11.3.1 There are established stages in the examination, assessment (and remediation) of contaminated land. The overall logic and stepped procedures of these stages may also be applied, as appropriate, to other situations. These steps are categorised as follows:

- risk assessment/further desk study work;
- site investigation;
- site remediation; and
- site monitoring.

11.3.2 Figure 12 illustrates a typical staged approach. Note that it may not always be essential to carry out all stages, or to undertake this work sequentially.

11.3.3 Generally speaking, the maximum value for money can be achieved, and using fewer resources, at the front end of the process. Clients must therefore be prepared to fund and resource this element properly. It is a false economy to advise clients to authorise inadequate initial investigations, only to be faced with additional site investigation costs after important decisions have been made.

11.3.4 A major task at the outset is the definition of the brief from the client. This is often an iterative process, which should be carried out with care in order to ensure that all parties are clear about the purpose of the commission and their respective roles. Clients cannot be expected to invest in a large team until they are clear as to their overall objectives as defined in the brief.

11.4 Risk assessment/further desk study

11.4.1 Risk assessment is the process through which environmental hazards and liabilities are identified. The assessment aims to identify all relevant risks, consider their potential for harm, take into account legal obligations and liabilities, and identify the appropriate measures for the removal, containment, mitigation, minimisation or management of the risks, as appropriate. This provides the base point from which wider property-related advice can be given.

11.4.2 In the case of contaminated land, the process of risk assessment considers the relationship of the source of potentially harmful or polluting substances, the available pathways for their transport, and their possible effect on environmental receptors, on a site-specific basis (please see Figure 1). The presence of contamination in land does not always mean that for any particular purpose, and in the specific conditions of that site, the contamination has necessarily reached an ‘action level’, where remediation or risk reduction actions are necessary.
11.4.3 In more detail, the objectives of risk assessment include:

- identifying and evaluating all potential hazards likely to be present on a site, or specific parts of a site, potential migration pathways and the receptors potentially at risk;
- providing advice on the need for, and scope of, intrusive investigations, and their objectives;
- estimating the likely extent and cost of any intrusive sampling by reference to a preliminary site characterisation;
- estimating the cost of any necessary remedial measures identified by reference to a particular use of the site;
- estimating the amount of any prudent financial provision for contingencies that may arise in the course of remediation; and
- providing a statement of any limitations on the future use of the site after any remedial measures advised have been carried out.

11.4.4 This first stage typically includes amassing the following information:

- the purpose and extent of the report required, particularly any exclusions;
- the general location and description of the site, including plant;
- a description of current land uses on the site and the adjoining land;
- a site history – including a search of maps, documentary records, and so on;
- a note of potential contaminants associated with previous uses;
- a note of potential contaminants associated with the existing use;
- a summary of the potential for ground contamination and its significance, given the site setting;
- a note of the site geology and regional context, where appropriate;
- information on the local hydrology (surface water resources) and hydrogeology (ground and water resources) and existing abstractions;
- information on the significance of the environmental setting of the site with respect to the site’s geology, hydrology and hydrogeology; and
- information on other issues, including those relating to archaeology and ecology, and a note of characteristics of off-site locations that could have an environmental impact or be sensitive to effects from the subject site.

11.4.5 Primarily desk-based research study will be considerably helped by a walk-over of the site, and this should be included in the assessment. The above list is a menu for the first stage of a detailed site investigation, and will allow an initial analysis of potential environmental problems. This level of information alone may be suitable for some property purposes, while for others a more in-depth study will be required. Further stages of investigation are intended to define to a greater extent and degree of accuracy the incidence and characteristics of contamination, by means of physical sampling and testing of the land.

11.5 Site investigations

11.5.1 Further and more intensive stages of investigation can be expected to include the following:

- the preparation of a sampling plan based on data derived from the first-stage review;
- sampling and chemical analysis of the soil, groundwater and air, to establish the extent and distribution of contamination. Sampling can involve the excavation of boreholes and trial pits, and gas measurement;
- preparation of a report summarising sampling procedures and analysis techniques and indicating any significant environmental effects; and
- further risk assessment – a more sophisticated assessment than that provided by the first-stage investigations, possibly requiring judgments to be made regarding toxicity, or, in some instances, requesting the use of computer modelling of toxicity and other statistical data, to determine risk quantitatively.

11.5.2 As already recommended, identification of potential contamination should always involve a walk-over survey of the site, with a log taken of times, observations and weather conditions. Neighbours, employees and local historical societies are frequently helpful sources of information about previous activities on sites.
11.5.3 Discussions with statutory authorities, including the Environment Agency or Scottish Environmental Protection Agency (which has regional and area offices), the Health and Safety Executive (HSE) and the local authority environmental health officer (contaminated land officer) can disclose site-specific information and reveal if action has been taken, or is intended, to deal with any breach of regulatory control.

11.5.4 The further risk assessment involved in this stage should take into account all the information obtained through desk research, physical inspection and testing, to allow site risk to be evaluated and management and remediation actions to be proposed. Initially, a decision will be needed as to whether contamination concentrations are likely to be harmful; the scope of the assessment may be limited to areas and substances that have potential for harm.

11.5.5 The consultant’s role is to assess the degree of risk. It is rare that a site will contain no risk at all. Physical testing and analysis will provide some information, but this must be set against the actual or intended use of the site, with an evaluation of the risk to human, animal and plant health. This information is required so that it can be evaluated against exposure criteria relating to an acceptable threshold level.

11.5.6 The government is continuing to introduce guidance in the area of risk assessment, and it is expected that this will, in the future, form the basis of instructions to specialists. The existing framework is essentially as shown in Figure 13.

11.6 Site remediation

11.6.1 In Part 2A of the Environmental Protection Act 1990, the term ‘remediation’ is used in a context that includes the process of site investigation. (See paragraph 2.3.12 for a full definition of ‘remediation’ under the Act.) However, for the purposes of this guidance note, site remediation is deemed to be the process by which the risk of harm or pollution arising from substances in land is eliminated or reduced to an acceptable level. This may take place by reference to a particular use of land or, alternatively, to all possible uses of that land. The ascertained or anticipated cost of carrying out remediation may need to be reflected in some valuations of land.

11.6.2 Figure 2, in Part 2, illustrates the processes by which a harmful material may encounter a vulnerable receptor by means of an intermediate ‘pathway’. This relationship is termed a ‘relevant pollutant linkage’. Remediation may consist of:

- removing the substance or substances from the source or rendering them harmless; or
- severing the ‘pathway’ (for instance, by the introduction of physical barriers); or (occasionally) by
- removing the receptor or reducing its vulnerability.

11.6.3 It follows that once remediation has been carried out, land may continue to contain contaminants, but the risk of damage to receptors will have been adequately prevented – at least for a period of time. The use of that land may nevertheless be severely restricted, depending on the nature of the contaminants and the means of remediation employed.

11.6.4 On the other hand, some current uses of that land may be perfectly satisfactory, as the nature of that use or the character of the development will prevent the exposure of receptors to contaminants. An example would be an industrial site where extensive hard surfacing prevents direct contact with soil containing materials that would be unacceptable if present in garden or park soils in a residential area.
11.6.5 This variability is reflected in the government’s preferred ‘suitable for use’ approach to contaminated land, set out in Circular 02/2000 from the Department for the Environment, Transport and the Regions (DETR – now the Department for Environment, Food and Rural Affairs, Defra), which implements the contaminated land regime and PPS23: Planning and Pollution Control. Under this approach, regulatory action will generally be initiated only when land presents hazards that are incompatible with the nature of its current use.

11.6.6 PPS23 acknowledges contamination as a material planning consideration and advises local authorities to seek appropriate remedial measures in the course of redevelopment. Conditions for the identification and quantification of contamination, followed, if necessary, by remediation of land and buildings, are likely to be imposed as planning conditions. Section 106 planning obligations may also be necessary when development takes place on potentially contaminated sites.

11.6.7 The developer is expected to provide a risk-based assessment as to whether contamination exists or not, and to provide detailed proposals for its treatment. Planning permissions may be granted subject to detailed conditions requiring the remediation of land prior to works commencing. Where planning conditions are imposed upon the developer, it is essential that the developer complies with these. Failure to obtain confirmation from the local authority that a planning condition has been discharged to the satisfaction of the authority may result in development rights being rescinded. In a worst-case scenario, the building may have to be demolished.

11.7 Land condition records

11.7.1 The purpose of a land condition record is to create an environmental logbook for land. These records were introduced in response to the findings of the government’s Urban Task Force, chaired by Lord Richard Rogers, which identified the benefits of greater consistency in the handling of information on land contamination. The task force recommended the introduction of standardised documentation describing the condition of land and, in its report Towards an Urban Renaissance, stated that the purpose of this would be:

‘… to ensure that during the sale, purchase and redevelopment of land, all concerned parties had access to the same data-sets and could therefore develop some general agreement between them on the levels of risk associated with that particular site and that particular use.’ (© Crown copyright.)

11.7.2 As a result, land condition records (LCRs) were introduced. These aim to assist in a number of specific circumstances related to the sale and transfer of land in development control and certain other regulatory contexts and, in general, to promote greater confidence in the management of brownfield sites. These reports often form part of land quality statements (LQS – see Section 11.8).

11.7.3 The Urban Task Force’s main recommendations were that LCRs:

- should consist of available factual information or basic data relevant to land contamination;
- should be completed within a quality assurance system including the work of an accredited specialist in contaminated land. These specialists are known as Specialists in Land Condition (SiLCs);
- should be voluntary and straightforward to complete and maintain; and
- should not include an assessment of the implications of the information, for example, as to whether the land is suitable for use or whether pollutant linkages are present.

11.7.4 LCRs should be completed by chartered environmental surveyors and/or SiLCs. The organisations that support the SiLC accreditation scheme are:

- the Association of Geotechnical and Geoenvironmental Specialists (AGS);
- the British Geological Society (BGS);
- the Chartered Institute of Environmental Health (CIEH);
- the Chartered Institute of Water and Environmental Management ( CIWEM);
- the Institute of Environmental Management and Assessment (IEMA);
- the Institution of Civil Engineers (ICE);
- the Royal Institution of Chartered Surveyors (RICS); and
- the Royal Society of Chemistry (RSC).

11.7.5 The SiLC accreditation scheme is administered by IEMA, which maintains a register of accredited specialists. It is possible to download the LCR documentation from the SiLC website, at www.silc.org.uk.
RICS is also a member of the Society of the Environment (SocENV), which includes a wide variety of organisations dedicated to sustainable developments and putting the environment first in terms of its protection, enhancement and management. Many chartered surveyors are also chartered environmentalists and have an understanding of the broader issues as to how the environment impacts upon socio-political and economic issues. SocENV’s constituent member bodies include:

- the Arboricultural Association;
- the Association of Building Engineers;
- the Chartered Institute of Architectural Technologists;
- the Chartered Institute of Building;
- the Chartered Institute of Wastes Management;
- the Chartered Institute of Water & Environmental Management;
- the Energy Institute;
- the Institute of Agricultural Management;
- the Institute of Chartered Foresters;
- the Institute of Ecology & Environmental Management;
- the Institute of Environmental Management & Assessment;
- the Institute of Fisheries Management;
- the Institute of Materials, Minerals and Mining;
- the Institution of Agricultural Engineers;
- the Institution of Civil Engineers;
- the Institution of Environmental Sciences;
- the Institution of Mechanical Engineers;
- the Institution of Water Officers;
- the Institution of Chemical Engineers;
- the Landscape institute;
- the Royal Institution of Chartered Surveyors;
- the Royal Meteorological Society;
- the Society of Environmental Engineers.

**11.8 Land quality statements**

**11.8.1** Investigations as described in the preceding sections often result in voluminous, technically worded reports that are not user-friendly for either clients or their other non-specialist professional advisers, who require a comprehensible synopsis with relevant conclusions drawn. RICS describes reports providing such synopses as ‘land quality statements’ (LQS). The term is also applied to other reports by chartered environmental surveyors that provide the same degree of detail resulting from these surveyors’ own investigations. LQS usually comprise:

- a detailed description of the site and its location, by reference to a plan;
- a description of the current uses of the land and of the adjacent land;
- a summary of the site history, produced by reference to historical maps, archive records, and statutory, local authority and water authority registers and records;
- identification of potential contaminants associated with existing and previous uses, or with geological and hydrogeological features, through site investigation reports and the specialists’ own observations;
- identification of other relevant issues, including those pertaining to archaeology, ecology, sites of special scientific interest (SSSIs), human population exposure and characteristics of off-site locations that could have an environmental impact or be sensitive to effects from the subject site;
- conclusions as to:
  - whether remedial treatment is necessary or prudent to enable the continued use of the property for its current use without undue risk to the health of persons using the property;
  - whether remedial treatment is necessary or prudent to reduce the risk of damage to a third party’s health or property, or damage to the environment, which may give rise to a claim for damages, prosecution or action by the appropriate regulatory authorities;
if remedial treatment is not warranted, whether a residual risk of future claims from third parties and regulatory authorities remains;

− whether concern regarding the risks associated with the known or suspected presence of contamination restricts the prudent use of the property compared with its likely range of possible uses if the site were uncontaminated;

− if the property is to be redeveloped for a specified purpose, how much additional expense would be incurred in investigating contamination of the property further, and in carrying out any necessary remedial work, as compared with an uncontaminated property. Estimates produced prior to intensive investigations are often extremely broad; and

− whether there is a likely implication from the foregoing for the value and/or the viability of development.

11.8.2 The risks are normally categorised as ‘very high’, ‘high’, ‘medium’, ‘low’ and ‘very low’.

11.8.3 It is important that the tests set out in the relevant legislation are also addressed within the LQS. These tests aim to address the issues raised in s. 78A(2) of the Environmental Protection Act 1990 by seeking answers to the following questions:

• Is significant harm being caused?

• Is there a significant possibility of such harm being caused?

• Is pollution of controlled waters being caused?

• Is the pollution of controlled waters likely to be caused?

11.9 Environmental screenings

11.9.1 In many cases, the use of a land condition record (LCR) or land quality statement (LQS) may be inappropriate. This typically occurs when, for example, land or property is acquired under small personal pension plan schemes, or as part of a wider portfolio, or when properties are in a town centre or on the edge of a town centre, as opposed to being part of a large brownfield redevelopment or regeneration project. There may also be time constraints in the procurement of environmental reports. RICS terms the reports suitable for these types of properties and land ‘environmental screenings’. These encompass an assessment of contamination and environmental impacts.

11.9.2 Environmental screenings are prepared by chartered environmental surveyors, and typically include a risk classification in the context of the occupier’s proposed or continued use of the premises. In drawing up this classification, consideration is given as to whether the site has a low, medium, or high level of environmental risk, given the information contained in the preliminary appraisal. This risk classification is designed to consider the environmental risk to the future owner or occupier, in the context of the existing use, where no alternative use strategy is proposed. The hierarchy of risk is as follows:

HIGH: Significant risk of contamination, given the environmental setting, resulting from either poor housekeeping, unfulfilled waste-management obligations or inadequate security, with significant potential for environmental pollution. Also includes historical uses that present the potential for significant environmental damage. Significant on-site risk-management arrangements will be required in the short term.

MEDIUM: Risk of contamination, given the environmental setting, resulting from some unfulfilled site-management obligations where there is a limited history of contaminative use. Some on-site risk-management arrangements will be required in the medium term.

LOW: Little risk of contamination, given the environmental setting, with low potential for contamination caused by the activities of the occupier, and a limited history of contamination. In these instances, the site will be generally well-managed, with all basic site-management issues addressed. Few or no remedial measures will be necessary.
Where a known alternative use is being actively considered in the risk assessment, the environmental risk will be categorised in the context of the redevelopment proposals in accordance with the following risk hierarchy:

**HIGH:** Significant risk of contamination without remediation. Precludes all but the least sensitive of development, e.g. car parking. Significant potential or environmental pollution. Remediation measures expensive. Site investigation required.

**MEDIUM:** Risk of contamination but allowing non-sensitive development, e.g. commercial, for reasonable costs of remediation, although more sensitive development, e.g. housing, may require substantial remedial measures. Potential for environmental pollution. Site investigation may be required.

**LOW:** Little risk of contamination; all development options are likely to be possible with little or no remediation measures. Little potential for environmental pollution. Confirmatory site investigation may be required.

Although these risk rankings specifically relate to contaminated land, the hierarchy and method of relative risk assessment provides a useful model for interpreting and reporting other environmental risks, where appropriate.

**11.10 Sustainability survey**

Although a number of recognised techniques exist to assess buildings from a sustainability point of view, including BREEAM, Ska, LEED and Greenstar, none of these are necessarily suitable for all buildings. Furthermore, there is no recognised definition for what constitutes a sustainable building. As a contribution to developing a methodology to assess buildings from a sustainability perspective, RICS is developing a sustainability survey.

Increasingly clients are now looking for a rounded view as to the environmental issues associated with their property, reflecting historic and current land use, energy consumption and thermal performance, not only to satisfy their corporate and social responsibility aspirations but to benchmark the property in a structured way so that the issues can be measured in the future. A sustainability survey could for example be used in conjunction with the operation of a ‘green lease’, where each party needs to agree key criteria and how these relate to the property as a whole from both points of view. Such surveys should be commissioned by chartered surveyors, particularly chartered environmental surveyors.

Such a survey should not be confused with a sustainability statement or audit, or even assessment, which may be procured for specific purposes perhaps associated with a planning application or as part of an environmental impact assessment. A sustainability survey is an accessible tool for use in day-to-day transactions, whether freehold or leasehold. It is also for clients to understand how their use and occupation can influence the sustainability index of the property over time, for good or bad. Some occupiers may have a detrimental impact upon a property which a landlord may see as potentially a dilapidation.

A sustainability assessment can include many of the forms of report already prepared by a chartered surveyor and outlined in this guidance note as follows:

**Property uses**

**11.10.5 Existing land use**

A critical examination as to how the occupier uses the premises can be undertaken to see whether they keep the premises in a clean and tidy manner, whether waste is handled in accordance with best practice, and that waste is minimised and recycling streams are optimised. All of the documentation associated with waste is available for inspection, including waste transfer notes relating to each waste stream depending upon the occupier. A classification rated A-G can be associated with different levels of risk found in the existing use option environmental screening report outlined:
11.10.6 Historical land use
The land is classified using the methodology set out in Section 11.9, covering redevelopment options of environmental screening. Again a rating from A (low) to G (high) is used.

11.10.7 Flooding
Flooding from rivers can give rise to significant problems for the occupier of an affected building. This is not the only source of flooding that needs to be assessed. Part 5 highlights the different forms of flooding which need to be taken into account in a sustainability survey. These can also be rated A-G, depending upon the severity of the flooding incidents.

11.10.8 Energy performance
A benchmark for thermal conductibility of a property in accordance with the Energy Performance of Buildings Directive is required in any sale for gain of property, and an Energy Performance Certificate is produced as a result. Although Display Energy Certificates are, at the time of publication of this guidance note, only required for public buildings with public access, these should be considered to properly ascertain the energy usage of a building, and be looked at as part of the sustainability survey.

11.10.9 Environmental considerations
The presence of landfilling, waste, water resources and mineral extraction all have a bearing upon a property, and each of these needs to be ranked in an A-G classification, depending upon the severity and the nature of the property and occupation.

11.10.10 Sustainability overview
Once all of the features outlined above have been ranked, it is possible to see whether the property is free from any encumbrances, so that it can be given an A rating. If it is on contaminated land, badly used in a high-risk flood zone with poor energy performance and either affected by or caused detriment by other environmental issues in the area, a classification of G can be awarded.

11.10.11 A sustainability survey is a new RICS service that can be offered by chartered surveyors, and chartered environmental surveyors in particular. Such services will evolve over time as both legislation and knowledge grow as to how to classify a property of all forms for the purposes of environmental benchmarking.
12 Reflecting specialists’ reports

12.1 Effect on value

12.1.1 As explained in Part 4 of this guidance note, the RICS Valuation Standards (the Red Book) contains explicit, mandatory requirements (as well as guidance) on the procedures to be followed by valuers when undertaking valuations to which the Red Book applies. The implications for value reflect the Red Book requirements. Part 8 of this guidance note then sets out the essential steps to be taken when buying and selling land and property.

12.1.2 Beyond such procedures, except in cases where the client has expressly instructed or agreed that contamination is to be disregarded, it falls to the valuer in preparing valuations of contaminated land to exercise his or her judgment in reflecting the effect of contamination on the property to be valued.

12.1.3 Unless the aforementioned exception applies, it is necessary for the valuer, in preparing the valuation, to take account of all relevant factors and their interrelationships. The valuer needs to be able to access the advice of other professionals as to the type and extent of contamination, as well as the scope for remediation and associated costs.

12.2 Reporting

12.2.1 Where a surveyor is provided with the report of a chartered environmental surveyor or environmental consultant, and the surveyor's draft report refers to, or makes assessments based upon, or makes reference to anything contained in, such a specialist report, it is often good practice for the draft report to be supplied first to the specialist concerned, for written confirmation that the surveyor has correctly understood and applied the information and advice contained therein. This step, naturally, will depend on the time available.

12.2.2 In cases where environmental consultants have been appointed, the following statement may be appropriate for inclusion in reports containing valuations:

‘You have instructed [chartered environmental surveyor and/or environmental consultants] to advise you in respect of environmental factors and contamination. We have been supplied with information by [chartered environmental surveyor and/or environmental consultants] as described elsewhere in this report [reference] [and discussed it with them in order to clarify any likely effects upon the use of the property].

We have assumed that the information and opinions we have been given are complete and correct in respect of the properties and that further investigations would not reveal more information sufficient to affect value. We consider that this assumption is reasonable in the circumstances. However, a purchaser may cause such further investigations to be made and if these were unexpectedly to reveal additional contamination then this might reduce the values/level of possible offers now being reported.’

12.2.3 Such a statement will usually require additional description and expansion in relation to individual circumstances. When doing so, fact should always be distinguished from opinion, and the views of the surveyor separated from those of the consultants. Unless the surveyor has sufficient experience and the requisite professional indemnity insurance (PII) cover, he or she should limit his or her reporting to facts, and to the consequences of the opinions of others, in respect of contamination matters.

12.2.4 If the surveyor is unsure, clarify the facts with the chartered environmental surveyor before the report is finalised. The opinion of the environmental expert can be added to the report as an appendix, for example.
### Property Observation Checklist for Identifying Apparent Potential for Contamination and Environmental Issues (Commercial and Industrial)

**Site/Property:**

**Date of Inspection:**

**By:**

Tick the appropriate boxes to record presence and inspection of the various parts of the subject property and features observed in the course of the ordinary inspection of the property and surrounding area.

<table>
<thead>
<tr>
<th>PART OF PROPERTY</th>
<th>Present/Inspected</th>
<th>Suspected asbestos – containing material in situ? Discarded? An immediate and significant risk to health?</th>
<th>Waste/fly tipping</th>
<th>Petroleum or fuel tanks</th>
<th>Other tanks or containers</th>
<th>Discoloured or smelly water/liquids</th>
<th>Invasive species e.g. giant hogweed and Japanese knotweed</th>
<th>Oil staining</th>
<th>Irregular topography</th>
<th>Vegetation dieback</th>
<th>High voltage overhead tension lines/electrical sub-station/Telecom masts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Buildings:</td>
<td>Y N</td>
<td>Y</td>
<td>Y N</td>
<td>Y N</td>
<td>Y N</td>
<td>Y N</td>
<td>Y N</td>
<td>Y N</td>
<td>Y N</td>
<td>Y N</td>
<td>Y N</td>
</tr>
<tr>
<td>o. occupied?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>vacant?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>d. dilapidated?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Basement and subterranean features (e.g. air raid shelters)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Outbuilding, including garages and stores</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hardstanding</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agricultural land</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Derelict or rough ground</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Landscaping and/or natural woodland</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Water Course or adjacent thereto</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Surrounding area</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Extent of inspection of immediate vicinity</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
List existing uses: ______________________________________

<table>
<thead>
<tr>
<th>Observed use of the subject property</th>
<th>Evidence seen of such uses having taken place within the vicinity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Industry/Manufacturing?</td>
<td>Yes</td>
</tr>
<tr>
<td>Waste disposal, waste processing and/or landfill?</td>
<td>Yes</td>
</tr>
<tr>
<td>Surface or underground mineral working?</td>
<td>Yes</td>
</tr>
<tr>
<td>Vehicle maintenance or refuelling?</td>
<td>Yes</td>
</tr>
<tr>
<td>Is the site property near a river stream or ditch?</td>
<td>Yes</td>
</tr>
<tr>
<td>Is the property in a hollow or at the bottom of a hill where flood water could collect?</td>
<td>Yes</td>
</tr>
<tr>
<td>Are you aware of any flood events affecting the property or immediate area?</td>
<td>Yes</td>
</tr>
<tr>
<td>Is the property protected by river or coastal defences?</td>
<td>Yes</td>
</tr>
<tr>
<td>Have you obtained a flood risk report from a Chartered Surveyor?</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Notes or other comments:
### Rural Property Observation Checklist for Identifying Apparent Potential for Contamination and Environmental Issues

<table>
<thead>
<tr>
<th>PART OF PROPERTY</th>
<th>CONTOAMINATION FEATURES</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Present</td>
</tr>
<tr>
<td>Main farmstead</td>
<td>Y</td>
</tr>
<tr>
<td>Subsidiary farmstead or buildings, Ancillary users eg processing, retails</td>
<td></td>
</tr>
<tr>
<td>Farm waste containment</td>
<td></td>
</tr>
<tr>
<td>Livestock buildings</td>
<td></td>
</tr>
<tr>
<td>Livestock yard/ handling/ treatment/ dipping</td>
<td></td>
</tr>
<tr>
<td>Workshops/ machinery and chemical stores</td>
<td></td>
</tr>
<tr>
<td>Bulk slage or wet feed containment</td>
<td></td>
</tr>
<tr>
<td>Hardstandings and outside storage area</td>
<td></td>
</tr>
<tr>
<td>Dredged/ rough ground/ former quarries</td>
<td></td>
</tr>
<tr>
<td>Watercourses/ ditches/ private water supplies</td>
<td></td>
</tr>
<tr>
<td>Agricultural land</td>
<td></td>
</tr>
<tr>
<td>Woodland/ scrub</td>
<td></td>
</tr>
<tr>
<td>Surrounding areas</td>
<td></td>
</tr>
</tbody>
</table>
List existing uses: ________________________________

<table>
<thead>
<tr>
<th>Observed use of the <strong>subject property</strong></th>
<th>Evidence seen of such uses having taken place <strong>within the vicinity</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Industry/Manufacturing?</strong></td>
<td>Yes</td>
</tr>
<tr>
<td><strong>Waste disposal, waste processing and/or landfill?</strong></td>
<td>Yes</td>
</tr>
<tr>
<td><strong>Surface or underground mineral working?</strong></td>
<td>Yes</td>
</tr>
<tr>
<td><strong>Vehicle maintenance or refuelling?</strong></td>
<td>Yes</td>
</tr>
</tbody>
</table>

**Is the site property near a river stream or ditch?** | Yes | No |

**Is the property in a hollow or at the bottom of a hill where flood water could collect?** | Yes | No |

**Are you aware of any flood events affecting the property or immediate area?** | Yes | No | Yes | No |

**Is the property protected by river or coastal defences?** | Yes | No | Yes | No |

**Have you obtained a flood risk report from a Chartered Surveyor?** | Yes | No |

Notes or other comments:
# Residential Property Observation Checklist for Identifying Apparent Potential for Contamination and Environmental Issues

<table>
<thead>
<tr>
<th>PART OF PROPERTY</th>
<th>CONTAMINATION FEATURES</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Present</td>
</tr>
<tr>
<td>Buildings:</td>
<td>Y</td>
</tr>
<tr>
<td>occupied</td>
<td></td>
</tr>
<tr>
<td>vacant?</td>
<td></td>
</tr>
<tr>
<td>dilapidated?</td>
<td></td>
</tr>
<tr>
<td>Basement &amp; subterranean features (e.g. air raid shelters)</td>
<td></td>
</tr>
<tr>
<td>Outbuilding, including garages &amp; stores</td>
<td></td>
</tr>
<tr>
<td>Gardens</td>
<td></td>
</tr>
<tr>
<td>Surrounding Area</td>
<td></td>
</tr>
<tr>
<td>Extent of inspection of immediate vicinity</td>
<td></td>
</tr>
</tbody>
</table>
List existing uses: ____________________________

<table>
<thead>
<tr>
<th>Observed use of the <strong>subject property</strong></th>
<th>Evidence seen of such uses having taken place <strong>within the vicinity</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Industry/Manufacturing?</td>
<td>Yes</td>
</tr>
<tr>
<td>Waste disposal, waste processing and/or landfill?</td>
<td>Yes</td>
</tr>
<tr>
<td>Surface or underground mineral working?</td>
<td>Yes</td>
</tr>
<tr>
<td>Vehicle maintenance or refuelling?</td>
<td>Yes</td>
</tr>
<tr>
<td>Is the site property near a river stream or ditch?</td>
<td>Yes</td>
</tr>
<tr>
<td>Is the property in a hollow or at the bottom of a hill where flood water could collect?</td>
<td>Yes</td>
</tr>
<tr>
<td>Are you aware of any flood events affecting the property or immediate area?</td>
<td>Yes</td>
</tr>
<tr>
<td>Is the property protected by river or coastal defences?</td>
<td>Yes</td>
</tr>
<tr>
<td>Have you obtained a flood risk report from a Chartered Surveyor?</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Notes or other comments:
Appendix D - Regulators and regulatory bodies

The official regulator of contamination and environmental matters for the UK as a whole is the Department for Environment, Food and Rural Affairs (DEFRA). The department can be contacted via its website, at www.defra.gov.uk.

In Scotland, the Scottish Executive serves as the regulator. The website address for the Executive is www.scotland.gov.uk.

The Welsh Assembly fulfills this function in Wales. Its website can be accessed at www.wales.gov.uk.

For Northern Ireland, the Department of the Environment serves as the regulator. Its website address is www.doeni.gov.uk.

There are other regulatory bodies for specific environmental areas. Among the most important of these are the following:

- English Heritage: www.english-heritage.org.uk
- Environment Agency: www.environment-agency.gov.uk
- Environment and Heritage Service in Northern Ireland: www.ehsni.gov.uk
- Health and Safety Executive: www.hse.gov.uk
- Highways Agency: www.highways.gov.uk
- Historic Scotland: www.historic-scotland.gov.uk
- Scottish Environment Protection Agency: www.sepa.org.uk
- Welsh Historic Monuments Executive Agency (through CADW): www.cadw.wales.gov.uk
Appendix E - Environment agency notice

Procedures for members of RICS who make environmental searches have been agreed with the Environment Agency. All information sent in writing (other than Agency leaflets and publications) will be sent with a notice as shown below.

The new standard notice is reproduced below, with the permission of the Environment Agency.

**Standard notice for the supply of agency information**

1. Nothing in this notice will in any way restrict your statutory or any other rights of access to the Data. If you wish to do anything in excess of those rights you may do so in accordance with the following paragraphs only if you agree to all the terms.

2. All intellectual property rights in the documents, data or information supplied to you (“Data”) whether owned by the Agency (“Agency Data”) or third parties (“Third Party Data”) will continue to be owned by them.

3. The Data have not been prepared to meet your or anyone else’s individual requirements so it is your responsibility to ensure that the Data meet your needs.

4. The Agency cannot ensure and therefore gives no promise that the Data in its possession will always be accurate, complete, up to date or valid.

5. The Agency will use reasonable care to ensure that you are provided with an accurate copy of the Data from our records.

6. If we have specified that a payment is required this must be made to us before we respond to your request and you will only be able to cancel and request your fee back up to the point when we start work on providing the requested information.

7. If you have asked for the Data to be supplied in an electronic format we cannot guarantee that the medium is free of any defects and you should do the appropriate virus checks.

8. Third Party Data use, including copying, must be limited to statutory rights and this generally means that you will need to seek permission to copy. Third Party Data will include information from our public registers which has been supplied to us by a third party such as in an application form.

**Use of agency data**

9. INTERNAL BUSINESS OR PERSONAL USE. You may use Agency Data for your own private use or for use within your business without restriction.

10. GIVING COPIES OF THE DATA. You may without restriction give copies of Agency Data provided that you do not do so as part of or in connection with a chargeable or revenue raising service, you copy the Data exactly as they are and attach a copy of this notice. You may not under this paragraph give out data which are obtained from or have their origin in Agency Data (“Derived Data”) or publish any Data on the Internet or allow a professional who has not received data directly from the Agency to pass the Data or Derived Data to a client. Recipients should also comply with the notice. Whenever possible any authorised copying of Agency Data shall acknowledge the Agency’s ownership of its Data. One way of doing this is by adding the words “Copyright © Environment Agency 20xx” (year of first publication) to the information or copy.

11. OTHER USE. You must contact the Agency’s Data and Information Exploitation Unit if you wish to use Agency Data or Derived Data in any way other than as set out above UNLESS we have already indicated to you that your proposed use is agreed OR you are satisfied that such use would not infringe our intellectual property rights. Examples of when you need to contact us include publishing on the Internet, passing on for commercial gain (for example by way of rental, licence, sale or providing services for consideration) or using our information (including creating and passing on data derived from Agency Data) in connection with or to promote a commercial service.
Appendix E – Environment agency notice

12. USE BY SOLICITORS, SURVEYORS ETC.
If you are a professional adviser who has obtained Agency Data directly from the Agency and paid the appropriate fee to the Agency you may give a single unamended and unadapted copy to your client (unless we indicate otherwise) provided that you also attach a copy of these notes and conditions. Recipients should also be advised that they must comply with them.

13. USE BY PUBLIC AUTHORITIES Nothing in this notice shall restrict the ability of a public authority to charge a fee limited to costs recovery in accordance with the Environmental Information Regulations or the Freedom of Information Act.

NB Please also read any additional information or warning we give you about specific Data.

Further information

For more information on the Agency’s Property Search Service, contact the National Customer Contact Centre (NCCC) on 08702 420199, or the Environment Agency direct, on 0845 933 3111 or at www.environmentagency.gov.uk.
Appendix F – Contaminated land warning card

The Contaminated Land Warning Card is produced by the Law Society of England and Wales and can be viewed on their website: www.lawsociety.org.uk and is reproduced here with their kind permission.

Warning - To All Solicitors - Contaminated Land Liabilities

The advice contained on this Card is not intended to be a professional requirement for solicitors. Solicitors should be aware of the requirements of Part IIA of the Environmental Protection Act 1990 but they themselves cannot provide their clients with conclusive answers. They must exercise their professional judgement to determine the applicability of this advice to each matter in which they are involved and, where necessary, they should suggest to the client obtaining specialist advice. In the view of the Law Society the advice contained in this Card conforms to current best practice.

Solicitors should be aware that environmental liabilities may arise and consider what further enquiries and specialist assistance the client should be advised to obtain.

Contaminated Land

1. The contaminated land regime was brought into effect in England on 1 April 2000. It applies to all land, whether residential, commercial, industrial or agricultural. It can affect owners, occupiers, developers, and lenders. The legislation, which is contained in Part IIA, Environmental Protection Act 1990 and in regulations and statutory guidance issued under it (see Contaminated Land (England) Regulations 2000 SI 2000/227 and DETR Guidance on Contaminated Land April 2000) is retrospective. It covers existing and future contamination.

The National Assembly is expected shortly to introduce similar regulations regarding contaminated land in Wales.

2. Local authorities must inspect and identify seriously contaminated sites. They can issue remediation notices requiring action to remediate contamination, in the absence of a voluntary agreement to do so. In certain cases (“Special Sites”) responsibility for enforcement lies with the Environment Agency.

A negative reply to the standard local authority enquiries from the local authority may merely mean the site has not been inspected. It does not necessarily mean there is no problem.

Compliance can be costly, and may result in expenditure which could exceed the value of the property.

Liability falls primarily on those who “cause or knowingly permit” contamination (a Class A person). If the authority cannot identify a Class A person, liability falls on a Class B person, the current owner, or occupier of the land. Class B persons include lenders in possession. There are complex exclusion provisions for transferring liability from one party to another. Some exclusions apply only on the transfer of land, or the grant of a lease. The applicability of any relevant exclusion needs to be considered before entering such transactions.

In every transaction you must consider whether contamination is an issue.
Conveyancing Transactions

In purchases, mortgages and leases, solicitors should:

1. Advise the client of potential liabilities associated with contaminated land.
   Generally clients should be advised of the possibility and consequences of acquiring interests in contaminated land and the steps that can be taken to assess the risks.

2. Make specific enquiries of the seller
   In all commercial cases, and if contamination is considered likely to be a risk in residential cases, (e.g. redevelopment of brown field land):
   3. Make enquiries of statutory and regulatory bodies.
   4. Undertake independent site history investigation, e.g. obtaining site report from a commercial company.

In commercial cases, if there is a likelihood that the site is contaminated:

5. Advise independent full site investigation.
6. Consider use of contractual protections and the use of exclusion tests.

This may involve specific disclosure of known defects, possibly coupled with price reduction, requirements on seller to remedy before completion, and in complex cases the use of warranties and indemnities.

Unresolved problems, consider:

7. Advising withdrawal, and noting advice;
8. Advising insurance (increasingly obtainable for costs of remediation of undetected contamination and any shortfall in value because of undisclosed problems).

Specific Transactions

1. Leases
   Consider if usual repair and statutory compliance clauses transfer remediation liability to tenant, and advise.

2. Mortgages
   Advise lender, if enquiries reveal potential for or existence of contamination, and seek instructions.
   In enforcement cases, consider appointment of receivers, rather than steps resulting in lender becoming mortgagee in possession, and so treated as a Class B person.

3. Share sales and asset purchases
   Consider recommending the obtaining of specialist technical advice on potential liabilities, use of detailed enquiries, warranties and indemnities.

Other Relevant Legislation

Other legislation and common law liabilities (e.g. nuisance) may also be relevant when advising on environmental matters including:

- Water Resources Act 1991
- Groundwater Regulations 1998
- Pollution Prevention and Control (England and Wales) Regulations 2000

Further Information


DETR’s Website: www.detr.gov.uk
Appendix G – Contaminated land warning leaflet

Below is the text of the warning leaflet on contaminated land issued by the Law Society of Scotland and reproduced here with their kind permission.

Advice from Law Society of Scotland leaflet on what enquiries solicitors should make on contaminated land

Solicitors should be aware that environmental liabilities may arise and consider what further enquiries and specialist assistance (both legal and technical) the client should be advised to obtain.

Contaminated Land

1. The contaminated land regime was brought into effect in Scotland on 14 July 2000. It applies to all land, whether residential, commercial, industrial or agricultural. It can affect owners, occupiers, developers and lenders. The legislation, which is contained in Part IIA, Environmental Protection Act 1990 and regulations and statutory guidance issued under it (see the Contaminated Land (Scotland) Regulations 2000 SI 2000/178 and the Scottish Executive Circular 1/2000, July 2000) is retrospective. It covers existing and future contamination.

2. Local authorities must inspect and identify seriously contaminated sites. They can issue remediation notices requiring action to remediate contamination, in the absence of a voluntary agreement to do so. In certain cases (“Special Sites”) responsibility for enforcement lies with the Scottish Environment Protection Agency (“SEPA”).

A negative reply to the standard local authority enquiries from the local authority may merely mean the site has not been inspected. It does not preclude a future inspection. It does not necessarily mean there is no problem.

Compliance can be costly, and may result in expenditure, which could exceed the value of the property.

In every transaction you should consider whether contamination is an issue.

Conveyancing Transactions

In purchases, heritable securities and leases, solicitors should address the issue of advising the client in relation to:-

1. Potential liabilities associated with contaminated land, taking into account the client’s own knowledge and expertise;

2. Raising specific observations with the seller at least if a substantive response is likely.

In all commercial cases, and if contamination is considered likely to be a risk in residential cases, (e.g. redevelopment of brown field land) solicitors should consider:

3. Advising the client to consider making enquiries of statutory and regulatory bodies (under the changes to the Council of Mortgage Lenders Handbook), in all residential transactions the solicitor will need to ensure that the contaminated land questions for local authorities are on the property enquiry certificate and to consider undertaking an independent site history investigation, e.g. obtaining a site report from a commercial company.
In commercial cases, if there is a likelihood that the site is contaminated solicitors should consider:

4. Advising the client to consider instructing an independent full site investigation;

5. Advising the client to use contractual protections.

For unresolved problems, solicitors should consider:

6. Advising the client to withdraw;

7. Advising the client to consider obtaining insurance (increasingly obtainable for costs of remediation of undetected contamination and any shortfall in value because of undisclosed problems).

**Specific Transactions**

1. **Leases**
   Consider the effect of the terms of the lease and advise.

2. **Heritable Securities**
   Comply with the standing instructions of the heritable creditor.

In enforcement cases consider and advise client on the risk of the client becoming liable whether as a Class A or a Class B person.

3. **Share Sales and Asset Purchases**
   Consider recommending the obtaining of specialist technical advice on potential liabilities, use of detailed enquiries, warranties and indemnities.

---

**Other Relevant Legislation**

Other legislation and common law liabilities (e.g. nuisance) may also be relevant when advising on environmental matters including:

- The Control of Pollution Act 1974
- The Health and Safety at Work etc Act 1974
- The Environmental Protection Act 1990
- The Radioactive Substances Act 1993
- The Environment Act 1995
- The Town and Country Planning (Scotland) Act 1997
- The Groundwater Regulations 1998
- The Pollution Prevention and Control Act 1999 and the Pollution Prevention and Control (Scotland) Regulations 2000, SI 2000/323
Contamination, the environment and sustainability
Implications for chartered surveyors and their clients

3rd edition, guidance note

This guidance note is designed to help the expert and non-expert surveyor advise their clients as to how environmental and sustainability issues impact upon all aspects of land, property and construction.

The United Kingdom is the oldest industrialised society in the world. From the 17th century onwards, the UK went through an agricultural industrial revolution unprecedented in human history. There were no environmental controls or any form of environmental assessment. In Dickens’ novel Hard Times written in the 1850s, the fictional ‘Coketown’ is described thus:

‘…it was a town of red brick, or of brick that would have been red if the smoke and ashes had allowed it; but, as matters stood it was a town of unnatural red and black like the painted face of a savage. It was a town of machinery and tall chimneys, out of which interminable serpents of smoke trailed themselves forever and ever, and never got uncoiled. It had a black canal in it, and a river that ran purple with ill smelling dye…’

While today’s towns and cities can hardly be described as being representative of Coketown, it is important that we take account of our past to ensure the future is better for subsequent generations. The following main topics are covered:

- Understanding the law
- Reflecting contaminated land
- Environmental factors that may affect valuations
- Building surveying
- Commercial property agency
- Property development
- Property and estate management.