PROFESSIONAL STANDARD

Environmental risks and global real estate

Global

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Effective from December 2018

RICS®

Environmental risks and global real estate

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RICS standards framework

RICS' standards setting is governed and overseen by the Standards and Regulation Board (SRB). The SRB's aims are to operate in the public interest, and to develop the technical and ethical competence of the profession and its ability to deliver ethical practice to high standards globally.

The RICS Rules of Conduct set high-level professional requirements for the global chartered surveying profession. These are supported by more detailed standards and information relating to professional conduct and technical competency.

The SRB focuses on the conduct and competence of RICS members, to set standards that are proportionate, in the public interest and based on risk. Its approach is to foster a supportive atmosphere that encourages a strong, diverse, inclusive, effective and sustainable surveying profession.

As well as developing its own standards, RICS works collaboratively with other bodies at a national and international level to develop documents relevant to professional practice, such as cross-sector guidance, codes and standards. The application of these collaborative documents by RICS members will be defined either within the document itself or in associated RICS-published documents.

Document definitions

RICS professional standards	**Set requirements or expectations for RICS members and regulated firms about how they provide services or the outcomes of their actions.** RICS professional standards are principles-based and focused on outcomes and good practice. Any requirements included set a baseline expectation for competent delivery or ethical behaviour. They include practices and behaviours intended to protect clients and other stakeholders, as well as ensuring their reasonable expectations of ethics, integrity, technical competence and diligence are met. Members must comply with an RICS professional standard. They may include: • mandatory requirements, which use the word 'must' and must be complied with, and/or • recommended best practice, which uses the word 'should'. It is recognised that there may be acceptable alternatives to best practice that achieve the same or a better outcome. In regulatory or disciplinary proceedings, RICS will take into account relevant professional standards when deciding whether an RICS member or regulated firm acted appropriately and with reasonable competence. It is also likely that during any legal proceedings a judge, adjudicator or equivalent will take RICS professional standards into account.
RICS practice information	**Information to support the practice, knowledge and performance of RICS members and regulated firms, and the demand for professional services.** Practice information includes definitions, processes, toolkits, checklists, insights, research and technical information or advice. It also includes documents that aim to provide common benchmarks or approaches across a sector to help build efficient and consistent practice. This information is not mandatory and does not set requirements for RICS members or make explicit recommendations.

1 Introduction

1.1 Purpose and scope

Both in real terms and in the growth of legislation, environmental considerations affect real estate in all sectors. Increasingly there are implications for how we buy, sell, use and value real estate.

This professional standard is aimed principally at the land and property acquisition, disposal and asset management stages of the property life cycle. It aims to provide guidance to chartered surveyors who are not specialists in environmental considerations and management or in the preparation of environmental reports including Land Quality Statements and Environmental Screening Reports. It aims to:

- define the professional responsibilities of chartered surveyors
- provide a guide to the identification of environmental considerations and the investigations appropriate to them
- outline the roles of other professionals and assist chartered surveyors to brief, or help their clients to brief or instruct, chartered environmental surveyors or specialists to undertake appropriate investigations and assessments
- consider aspects of the relevant legal duties arising from environmental considerations
- help chartered surveyors to consider specialists' reports, and to appreciate the respective risk categories and conclusions and
- in terms of reporting, recommend standard phrases for use by chartered surveyors in circumstances where environmental risk is concerned.

This globally applicable professional standard supplements the RICS Valuation – Global Standards 2017 (the 'Red Book') and addresses in greater detail the environmental considerations that may affect real estate interests, which are referred to in VPGA 8 Section 2.6. Where 'VPGA', 'VPS' and 'PS' are used here, these are references to the Red Book. This document supersedes Contamination, the environment and sustainability: Implications for chartered surveyors and their clients (3rd edition, 2010).

Environmental law, including climate change law, has developed extensively over the last 25 years and addresses matters locally, regionally and internationally. Part of the reason for this growth has been the increasing awareness of how climate change is impacting all sectors of the economy, including the property industry and its stakeholders.

Global market participants and their lending partners now demand to know more about the factors that could affect value, particularly environmental considerations. The International Valuation Standards (IVS), which the Red Book adopts and implements, acknowledge that

sustainability and environmental considerations continue to grow in terms of market influence on global real estate.

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

Chartered surveyors are reminded that it is essential they are aware of the law and other relevant matters in relation to the jurisdiction individual assignments are undertaken in. Each case will present different challenges in the country, region and location in which it is set.

Whether acting for clients, employers or public authorities, chartered surveyors cannot ignore:

- the environment
- the law governing the environment
- its effects on value
- the management of land and property
- land use
- development and the re-use of land and buildings and
- the obligations on chartered surveyors that arise from these duties.

It is now more widely known that laws concerning the environment can impact society and commerce. When owning, occupying, purchasing, selling, letting or carrying out works on property, it is increasingly important to consider environmental risks. The need to be environmentally aware has developed beyond the recognition of corporate social responsibility among businesses and now plays an integral and active part in business performance.

1.2 Surveying safely

At all times during any survey or inspection, chartered surveyors visiting a site are reminded to take the appropriate precautions to ensure their safety and the safety of others. Chartered surveyors are reminded to comply with the health and safety obligations applicable to the property they visit. See the most recent edition of the RICS professional standard Surveying safely for more information.

2 The role of professionals and the services provided

At a time of growing recognition that climate change is having a material impact on all aspects of the property life cycle, 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.

Increasingly, new jurisdictional environmental laws affect all aspects of real estate. It is therefore important to take advice from appropriately competent, qualified and insured experts.

2.1 Chartered surveyors

In every case, chartered surveyors need to consider whether:

- they are competent to advise clients in assessing environmental considerations and
- they and/or their firm have the appropriate professional indemnity insurance (PII) to be able to carry out such tasks.

The role of the chartered surveyor is to advise on how environmental considerations translate into material effects on real estate. The added value of the chartered surveyor is the ability to coordinate and use advice provided by other experts and apply this to a property activity.

2.2 Chartered environmental surveyors

There is no profession that is solely responsible for advising comprehensively on these matters. However, chartered surveyors are often centrally placed to guide a client with regard to a property asset at a particular time. RICS has designated surveyors who can advise on environmental considerations (provided that they have the appropriate experience and PII) as 'chartered environmental surveyors'.

Chartered environmental surveyors have a vital role to play in the risk assessments and site investigations carried out for environmental risks and obligations. They may take an active role in the risk assessment and the investigations themselves, or may coordinate the services of the other professionals involved. A chartered surveyor may be able to undertake a flood protection survey while a civil engineer could produce a flood risk assessment, which requires detailed modelling.

The role of the chartered environmental surveyor or appropriate environmental specialist often bridges the gap between the world of environmental science and policy and the

marketplace. They can explain how environmental considerations may impact real estate interests and can be invaluable in:

- interpreting the outcomes of technical reports
- instructing technical experts
- checking the veracity of data
- assessing the economic feasibility of remedial options and
- providing assurance for the valuer in terms of the information relied on.

2.3 Environmental specialists

There is no single definition for an environmental specialist and the term is almost generic in its usage. Some specialists may be able to advise on soil material management on development sites and others could advise on protected species surveys.

Experts from any jurisdiction could be appointed from a broad cross-section of professionals. This can include a wide variety of organisations dedicated to sustainable development and putting the environment first in terms of its protection, enhancement and management.

The selection of appropriately qualified experts depends on the immediate and foreseeable tasks to fulfil the client's needs. 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 against a set of criteria previously drawn up. It is often advisable to separately identify factual and advisory work. This helps the passing of information between different specialists over the life cycle of the property.

The value of the land or buildings 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 as necessary to give a rounded view. 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 chartered environmental surveyors, valuers, asset managers, lawyers and appropriate specialists.

It is important that the report produced will contain enough information to enable the chartered surveyor to fulfil their obligations to the client in accordance with the terms of engagement. From the chartered surveyor's point of view, the key requirement is that the advice 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). Environmental specialists can also provide expert advice on this complex issue.

Chartered surveyors should not give opinions and embellishments independently of the report provided by the experts engaged as part of the individual assignment.

High	Significant risk of negative environmental impacts resulting from either: • poor on-site management • non-compliance with environmental obligations or • risk of exposing hazardous chemicals to the environment with significant potential for environmental pollution or other external risks. Historical uses present a potential for significant environmental damage. Significant on-site risk management arrangements required in the short term.
Medium	Risk of negative environmental impacts resulting from some unfulfilled site management or environmental obligations where there may be a limited history of contaminative use. Potential for negative environmental impacts from external sources. Some on-site risk management arrangements required in the medium term.
Low	Little risk of contamination with low potential for contamination caused by activities of the occupier. Limited history of contamination and no risk of external negative environmental impacts. Site generally well managed with all basic site management issues addressed and few or no remedial measures necessary.

Table 1: Hierarchy of risk

2.4 Online environmental reports

Data warehouses have emerged to provide an online service or a service where an environmental report can be procured in a few days. Such services have become commoditised as a result. The data varies between suppliers and the methodology used does not necessarily enable a chartered surveyor to fully address and satisfy the requirements of the Red Book. Furthermore, statements, often unsigned and unattributed, may be made in these reports about the impacts on valuation. The terms and conditions may mean that the chartered surveyor, their client and other stakeholders may not be able to rely on them. The chartered surveyor is urged to treat such reports with care if they do not fully support the valuation service offered.

The responsibility as to whether value is affected rests with the chartered surveyor engaged by, and reporting to, the client and great emphasis should be placed on:

- the quality of the site inspection
- the records kept in the property observation checklists (see Appendices A-C) and
- the care and judgment exercised consistent with the standards of the Red Book.

Where additional specialist input is not required, and unless explicitly instructed to the contrary, use of the appropriate property observation checklist(s) in Appendices A-C to record environmental considerations observed on-site is to be regarded as best practice. This does not remove the need for surveyors to remain alert, as a checklist cannot cover every conceivable circumstance.

The chartered surveyor must be aware that they will be solely responsible for the acceptance of a report generated by online services. If necessary, an Environmental Screening Report should be recommended as a means of addressing the requirements of the Red Book.

2.5 Environmental Screening Reports

Environmental Screening Reports (ESRs) can be 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. They should be used to underpin the value attributed to the property. These are normally commissioned when any property is acquired or to be sold, for example:

- for any pension fund
- for private investment
- for capital market clients
- as part of a portfolio and
- as part of asset management.

The ESR is designed to address the requirements of the Red Book, notably at VPGA 2 and 8.

The risk assessment should incorporate the issues that may impact the use and value of the property. In determining a risk rating, which is a subjective summary of risk, the ESR has to consider a hierarchy of risks. For example, whether the risk is low, medium or high level. The purpose of risk ranking is to consider the impact of the risk applicable to that asset.

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 (see table 1).

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

2.6 Land Quality Statements (LQSs)

The Land Quality Statement is an extension of the ESR and presents relevant conclusions on the effects on property interest and, in particular, valuation. It is designed to augment lengthy, technically driven reports or outcomes collectively known as environmental risk assessments that may not be user-friendly for clients or their professional advisers.

These reports are particularly valuable for large capital-intensive development projects (including brownfield) where significant capital funding may be necessary and high-level knowledge about adaptation costs is required.

An LQS should provide high-level conclusions in relation to the following critical issues:

- 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 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.

3 Environmental law and the chartered surveyor

It is important that the chartered surveyor is armed with enough knowledge to ensure that the right questions are asked and that the use of the property is legally compliant. In virtually all jurisdictions, there is legislation governing environmental considerations to varying extents and these can affect real estate. Environmental legislation continues to develop and has moved far beyond its origins in public health, to a wide-ranging concern for the quality of environmental media (that is air, water and land), and the protection of ecological systems that depend on such media.

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 potential liability to which businesses and consumers are exposed. Obligations and liabilities may arise, for example, from:

- the processes carried out by owners or occupiers
- an integral part of a building's structure
- historic pollution in, on or under land or
- the presence of species and habitats protected by legislation.

3.1 Obligations under environmental law affecting the value of real estate

Where an environmental obligation exists that the chartered surveyor is able to quantify, it may:

- require urgent adaptation at considerable cost; this may involve changing industrial plant or processes on site, such as the handling of waste
- affect business and efficiency
- expose the present and/or past owner or occupier to criminal and/or civil liability, particularly if past practice has caused damage to third parties or the environment
- blight the underlying asset value of property, including that used for loan security
- prejudice the use of the site for some new purpose or increase the development costs
- give rise to concerns for the health and welfare of on-site staff, contractors, visitors and neighbours
- potentially constrain the free use of the land and property as a result of designation of the land for the protection of natural resources on it

- have a beneficial impact on the value of property, depending on the nature of natural resources on it
- require the transfer of, or other measures concerning, a permit to enable the carrying out of works on the land and
- result in environmental liabilities for the owner or occupier.

3.2 The impact of environmental law on valuation

Environmental legislation varies and continues to evolve in each jurisdiction. In broad terms, chartered surveyors need to be aware of the following main areas of impact and should consider if any of them apply to real estate.

Figure 1: Emissions from steelworks (© Philip Wilbourn)

3.2.1 Air quality

Air quality and climate change laws may govern the emission of air pollutants into the atmosphere locally, nationally and/or regionally (depending on the jurisdiction), as well as internationally.

There may also be a specialised subset of air quality legislation that controls the quality of air inside buildings. Such legislation is designed specifically to protect human health by limiting and/or eliminating airborne pollutants above certain concentrations.

Regulatory measures include identifying and categorising air pollutants, setting limits on acceptable emission levels and requiring appropriate mitigation technologies.

Such laws may apply to locations where businesses release pollutants to the atmosphere and in larger commercial buildings where extensive air handling plant is concentrated.

3.2.2 Water quality

In most jurisdictions, legislation exists to control the release of pollutants into water, including surface water, groundwater and coastal waters. Legislation also exists to ensure public supplies of drinking water do not contain harmful concentrations of pollutants.

Some water quality laws, such as drinking water laws, may be designed solely with reference to human health. Many others, including restrictions on the alteration of the chemical, physical, radiological and biological characteristics of water resources may also reflect efforts to protect aquatic ecosystems more broadly.

Regulatory efforts may include identifying and categorising water pollutants, establishing limits for acceptable pollutant concentrations in water and limiting pollutant discharges from effluent sources.

The areas that may more commonly be part of a chartered surveyor's practice include:

- arrangements for sewage treatment and disposal
- commercial and industrial wastewater management, as well as surface water runoff from agricultural land
- management of pesticides and fertilisers on rural land
- construction sites and
- other urban environments.

3.2.3 Waste management

Waste legislation is generally designed to ensure waste is handled appropriately to avoid harm to human health and the environment. In some jurisdictions, this includes legislation designed to prevent or reduce the generation of waste, to promote or mandate waste recycling and re-use and to promote energy recovery from waste. Regulatory measures include:

- identifying and categorising waste types and
- mandating handling, transport, treatment, storage and disposal practices of waste, including non-hazardous, hazardous and nuclear waste.

All uses of land and property produce waste streams. Chartered surveyors should also be alert to fly tipping and waste management abuses. Failure to comply with waste management laws can result in fines and can impact the operation of businesses. Chartered surveyors should therefore be aware of the need for compliance with relevant waste

legislation concerning operations carried out on land and in the built and agricultural environment.

3.2.4 Contamination

Historic pollution from former industrial uses often requires remediation measures. This may involve the removal of contaminants from:

- soil
- subsurface strata
- sediment
- surface water
- groundwater and/or
- coastal waters.

It may also involve carrying out measures to control ground gas.

While often the 'polluter pays' principle (which can apply to environmental legislation – or all legislation – in some jurisdictions) may result in regulators targeting persons who cause pollution to control or remediate it, in some cases the polluter cannot be found. This may result, depending on the jurisdiction, in the former or current owner or occupier of the land becoming liable for its remediation. Allocating responsibilities and liabilities can be complex and can result in significant expenses, particularly for those ultimately found responsible or liable. Due diligence in the sale and purchase of assets that may be impaired is essential.

The costs can include:

- emergency response
- investigations
- assessment
- feasibility studies and
- other risk management measures:
  - monitoring (including post-remedial monitoring)
  - verification and validation and
  - in some cases, restrictions on the future use of a site.

Chartered surveyors may have to face enquiries about former uses and the effects these may have on the transaction and any lending, should the valuation be affected.

3.2.5 Chemicals

Chemical legislation seeks to protect human health and the environment from risks posed by chemicals legally used in commerce and in the daily lives of consumers. They include:

- controls over the use, transport and storage of large quantities of dangerous substances by industrial and commercial businesses, particularly in the chemical and petrochemical industry
- fuel transport and storage and
- the sale of cleaning products, paint, pesticides and other substances to households.

The regulation of chemicals can affect individual businesses in different ways, such as:

- the need to obtain permits for the use of certain chemicals
- registrations for the storage and handling of dangerous chemicals above a specified threshold and
- restrictions on the handling, transport and use of other chemicals, including pesticides, fungicides and insecticides – both for agricultural and non-agricultural uses.

In addition, the removal of asbestos from buildings, as well as other activities related to asbestos, must be carried out by licensed professionals in some jurisdictions.

As such, there may be legislation, permits or other approvals that an individual business must comply with to maintain their ability to operate.

3.2.6 Resource management and biodiversity

There is a raft of ecological legislation that has emerged to protect the environment and natural resources from degradation.

Endangered species and natural habitats, cultural, landscape, archaeological and other features and resources may be protected by environmental, nature conservation, spatial planning and other legislation. These resources include:

- threatened natural resources
- areas that have been designated to protect, and halt the loss of, biodiversity and
- areas that are protected for their landscapes or recreational use, such as national parks and heritage areas.

Controls also exist over specified forests (including ancient woodlands), rangeland, wetlands and grasslands that are set aside as wilderness or in which economic activities, such as timber harvesting, mining, farming and oil and gas exploration, may be permitted.

Nature conservation, environmental and other laws are international, national, regional and local in scope.

Such legislative platforms include:

- **water conservation:** its quality and management as a natural resource
- **mineral resources:** their ownership rights
- **forestry resources:** from protection of ancient woodland, through overall management to timber harvesting

- **landscape designations:** national and international
- **wildlife and plants:** protecting biodiversity through designated conservation status or management plans
- **marine conservation:** species and natural habitats management, which may be national and international and
- **heritage features and assets:** often protected by local, national and international designations.

3.3 Consequences for chartered surveyors giving advice

Environmental law can also cause potential liabilities for chartered surveyors who advise owners or occupiers of property. If the advice results in damage to the environment, they may find themselves personally liable. Appropriately qualified experts should be appointed to undertake tasks and the chartered surveyor is reminded to be aware of their capabilities and the limits of any PII.

3.4 Identifying environmental features

The role of the chartered surveyor is instrumental in identifying critical environmental features during their inspection of land and property, particularly through the use of checklists.

Firstly, it is important to remind chartered surveyors again of the requirements in PS 2 of the Red Book whereby they must exercise all appropriate experience, skill and judgment. In PS 2.4, it says that once agreement has been reached with the client, 'where appropriate, the *member* should then commission, assemble and interpret relevant information from other professionals, such as specialist valuers, chartered environmental surveyors, accountants and lawyers'. It is therefore important to know the limits of a chartered surveyor's expertise and associated PII.

Some chartered surveyors have specialist knowledge in investigating environmental considerations, either as part of an assessment process or in association with other forms of instruction. It is important that the chartered surveyor who is consulted on such matters is a specialist in their area of practice and has the relevant PII.

Where additional specialist input is not required, and unless explicitly instructed to the contrary, use of the appropriate property observation checklist(s) in Appendices A-C to record environmental considerations observed on-site is to be regarded as best practice. This does not remove the need for surveyors to remain alert, as a checklist cannot cover every conceivable circumstance.

They should be mindful of the requirements of:

- **VPGA 2:** 5.3 and 6.1 (for secured lending)
- **VPGA 8:** 1.2 (b) and (c) (characteristics of property and site) and

- **VPGA 8:** 2.6 (a), (b) and (c) (environmental matters).

3.5 Property observation checklists and what to look for

VPS 2 and VPGA 8 in the Red Book address various aspects of inspections and investigations, including minimum requirements to be complied with during an inspection. Many matters that may impact the market's perception of the asset may be evident only after it has been visited and thoroughly inspected.

Much depends on the nature of the agreement with the client and the limitations associated with the inspection during a valuation. Unless expressly required by the client and embodied in the terms of agreement, the chartered surveyor should always assume that environmental considerations should be noted on-site and commented on in the valuation.

RICS has produced property observation checklists (see Appendices A–C) that have been successfully used since the 2nd edition of the guidance note Contamination and Environmental Matters – their implications for property professionals (2003). Where additional specialist input is not required, and unless explicitly instructed to the contrary, use of the appropriate property observation checklist(s) in Appendices A-C to record environmental considerations observed on-site is to be regarded as best practice. This does not remove the need for surveyors to remain alert, as a checklist cannot cover every conceivable circumstance.

Note that completion of the property observation checklists is not the same as carrying out an environmental audit. It is a record of what a chartered surveyor observed during the site inspection that might influence the report of their observations in any valuation. It should be used to underpin the valuation.

Chartered surveyors should bear in mind that some banks and other lending institutions 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 potential 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. Often online environmental risk reports from data warehouse companies are supplied. See section 2.4 for more detail.

The RICS property observation checklists are as follows.

Commercial and industrial 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.

Rural property

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

Residential property

The residential property observation checklist (Appendix C) has been developed to aid reporting in both urban and rural situations where the chartered surveyor encounters environmental risks. Much of this is also addressed in the RICS Home Surveys consumer guide, depending on the level commissioned.

Chartered surveyors are reminded to include only the facts when reporting to the client on the observations they have made during the inspection of the property.

Although by no means an exhaustive list, some of the key issues that might be detrimental to the property interest include:

- inadequate containment of hazardous substances
- evidence of mineral extraction and mining
- indications of infilling or landfill
- invasive non-native species and
- evidence of flooding and susceptibility to flooding.

In terms of identifying flood risks associated with property and to assess the likelihood or probability of flooding, the chartered surveyor should first consider the surrounding area and record on the checklists:

- Is the property near a river, stream or ditch?
- Is the land in a hollow or at the bottom of a hill where floodwater 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?

Depending on the perceived level of the potential hazard, the chartered surveyor may need to consider gathering as much historical information as reasonably possible on any flooding in the area in question, for example:

- How many floods have occurred in the area to the specific knowledge of the chartered surveyor or have otherwise been recorded or documented in the past. What were the flood impacts in relation to that property? The chartered surveyor should inform the client of any flooding of that property and any previous floods that happened in the past that they are aware of.

- 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 any flood protection works planned? Are the existing defences or protection works known to be properly maintained?

When using the checklists, the chartered surveyor should make additional notes as necessary to assist with their consideration and preparation of their report. If the checklists are to be attached to the report, the limitations of use should be made clear, namely that the information recorded in them is not to be construed as an environmental assessment, and the chartered surveyor can take no responsibility for any matter other than the accuracy of their reasonable belief in the information reported.

Notwithstanding any impact on the value of the property, the chartered surveyor is reminded of the consequences of failing to report observations of environmental risks or any potential for environmental damage. A failure to report may even constitute a criminal offence in some jurisdictions. The chartered surveyor may not be insured for such matters, including a claim for negligence.

3.6 Other enquiries arising from the initial inspection

Following the inspection, the chartered surveyor may need to make enquiries about any contamination, flooding, mining or other environmental risks. The answers to these enquiries will determine whether the chartered surveyor may feel it necessary to recommend further specialised investigations.

In some jurisdictions, data is open source but different jurisdictions charge for it. Care needs to be exercised in the selection, interpretation and use of such data.

Chartered surveyors are advised to bear in mind that environmental authorities may charge for the provision of environmental information other than that available for free online. Although authorities are often under a statutory obligation to respond to requests for such information, this may take considerable time depending on the jurisdiction.

Alternative cost-effective commercial solutions may be available from commercial value-added resellers. These are commercial companies selling data that may be already interpreted. In most cases, the reports are not signed or attributed. Where there is no attribution by an appropriate professional, a great deal of care should be exercised with the statements made about the impacts on value (see section 2.4).

Chartered surveyors should note that the cost of acquiring environmental data in this way should be drawn to the attention of the client.

Often, a lending institution may supply an environmental report seeking further interpretation. Unless they are qualified, insured and experienced to do so, chartered

surveyors are reminded about the limits of their expertise. Care should be exercised when reviewing third-party computer-generated reports.

3.7 Recommending further investigations

In the normal course of valuation, it may not always be necessary to seek the further advice of a specialist. However, depending on the nature of the asset and/or the specific purpose of the valuation, additional expertise or assurance, particularly in relation to potential environmental risks or factors, may be needed to underpin the valuation or advice. Increasingly, capital market and banking clients require environmental due diligence surveys, such as ESRs, to fulfil their obligations to the Basel III international regulatory framework and the capital adequacy requirements of the global banking industry.

Chartered surveyors should make such recommendations for additional expert input when they believe there is a real risk that their report (or the valuation reported in it) may be inadequate or unsuitable for the client's needs, without the result of such investigations being taken into account.

4 Reporting the outcomes in a valuation

In accordance with PS 2.7, it is important that the chartered surveyor confirms to the client, in writing and in advance, the scope of the report the chartered surveyor is required to provide. 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 on by a third party.

Chartered surveyors should be aware of the caution in PS 2 of the Red Book: '*members* practising as valuers must have the appropriate experience, skill and judgment for the task in question and must always act in a professional and ethical manner free from any undue influence, bias or conflict of interest'.

This need for care is especially relevant where client expectations concerning the chartered surveyor's ability to report on certain matters are high. For example, in the wake of the global financial crisis in 2007-2008, awareness of risk has been heightened. Greater certainty in real estate valuation has progressively been sought, with banks and other secured lenders seeking assurance that, among other things, environmental considerations do not undermine a valuation.

When compiling the report, it is important that the chartered surveyor clearly sets out any negative aspects (from the client's viewpoint) so that these are prominent enough for the client to appreciate their significance and relevance.

The chartered surveyor should always state clearly what has been observed during the inspection. They should make no detailed comments or conclusions without specific knowledge or training to interpret what was seen and how it affects the property in question.

Chartered surveyors should not:

- make any statement of fact about previous uses (other than the most recent where there is no current use), except where the previous use is widely known and a statement can be properly qualified to reveal the source of the information
- make any statement of opinion as to the risk of environmental damage in relation to the use of land and buildings except where, as a result of their specific knowledge or training, the chartered surveyor knows that a building harbours hazardous materials or
- misrepresent any appropriate statement of opinion or conclusions prepared by a chartered environmental surveyor or environmental specialist who has been commissioned to undertake a specific investigation of the property for environmental considerations.

Chartered surveyors are reminded that caveats should be treated and used with caution; see VPS 1 section 3 i) and j) and VPS 3 section g) and h).

It is easy to use caveats to disregard environmental considerations in valuation but, unless the client expressly excludes consideration of certain matters, the valuer is required to give them appropriate attention and be alert to, and be prepared to recommend, where further expert input may be proper. See section 7 for more detail.

4.1 A synopsis of environmental considerations

Environmental considerations can sometimes be seen as benefits, in the sense of contributing value, as well as liabilities – with every situation needing to be considered individually. Sections 4.2 and 4.3 set out some of the more important aspects in greater detail.

4.2 Factors that may negatively impact valuation

In most jurisdictions, a great deal of data is available either online or from local knowledge. Valuers are reminded that while many information sources are property-specific, there are many that are not, and they may give only a general picture of the property. 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 in the valuation report. They should remember at all times their professional limitations and the obligations of their PII. Valuers should treat unattributed statements from data warehouses on the impacts of environmental considerations on the valuation with care. To help with interpretation of such reports see section 2.4.

The valuer should consider the commercial and economic losses that may be suffered by any property owner or occupier. The following risks may need to be considered:

- emergency or unplanned stoppage of production and/or cessation of operations
- evacuation of a building or part thereof, including the costs of the provision of temporary alternative accommodation and facilities
- loss of immediate income caused by business interruption
- negative publicity – stigma created by environmental risks
- reduction in value or rental income
- loss of liquidity of asset (difficulty in selling, leasing or licensing the premises and/or inability to do so)
- costs of adaptation works (flood resilience measures, de-contamination, physical reinstatement)
- financial liability for injured employees or other parties
- criminal prosecution (leading to potentially substantial fines and even imprisonment)
- possible civil damages for negligence (this can include chartered surveyors if they have given negligent advice) and

- end of tenancy dilapidations relating to environmental pollution or other environmental damage.

4.2.1 Contamination

While contamination issues are usually related to historic land uses, current land uses cannot be discounted. They may be or become a financial burden and, in some cases, may require specific management, adaptation measures or clean-up. Serious pollution events can also produce a long-term stigma that the valuer may need to consider when taking into account the marketability of the asset, or even asset class.

Identifying and quantifying the costs of cleaning up land that may be contaminated is not usually straightforward and is likely to be undertaken by a chartered environmental surveyor or appropriate environmental specialist. See section 3.2.4.

Chartered surveyors need to consider carefully how contaminated land may impact valuation. For example, in the case of development land it may increase costs and prolong the site clearance and preparation process, in turn potentially increasing the period for which funding is required (quite apart from any issues of successfully securing that funding), before a positive cash flow begins. Similarly, any material implications need to be reflected in valuations of real estate assets for other purposes including investment, sale or purchase.

Figure 2: Pollution in progress (© Philip Wilbourn)

For a developer, however, cleaning up brownfield land that may be contaminated can yield significant gains from possible tax advantages depending on the jurisdiction. This can partly or wholly offset any stigma impacts.

Finally, it should be noted that a survey of the environmental condition of a site can inform a transaction.

4.2.2 Flooding

Water may be both a benefit and a liability. Access to water can produce a premium value, just as the impact of a flood can diminish the value of the real estate interest. Climate change and global weather events are having a marked impact on the susceptibility of whole communities to flooding, not just individual real estate assets. As a result, the ability to insure real estate interests against such risks is not guaranteed to be available at an economic cost or at all. Lending and banking covenants often require asset classes to be insured for all perils and, if this is not the case, there may be serious implications for the valuer to consider when establishing a valuation of the real estate interest.

A flood event may arise from more than one mechanism. All mechanisms of flooding therefore need to be considered:

- surface water flooding due to heavy rain – known as pluvial flooding
- groundwater flooding – often following prolonged heavy rain, but potentially also resulting from less water being abstracted from aquifers by farmers, for example. Practical impacts include incursion on substructures and low-lying buildings above aquifers
- river flooding – known as fluvial flooding
- coastal flooding, including storm surges, spring tides and overtopping coastal defences
- dam break
- infrastructure failure, including burst water mains and overwhelmed drainage systems in a localised area, or
- property infrastructure failure, which may be localised to an individual property or a small number of properties.

The impacts on property can be significant following a flood event. They include:

- physical damage to the property
- the public transport network could be disabled
- staff unable to get to work
- services and supplies cut off
- widespread damage that may take months to repair
- social impact on health services – near and far in geographical terms
- long-term mental health impacts on communities

- commercial knock-on effects on support business
- tenants will look elsewhere for space and
- real estate values are likely to be materially affected if prospective occupiers or owners are persuaded to look elsewhere.

In appropriate cases, the surveyor may need to consider obtaining – or recommend the client secures – a flood protection survey by a suitably qualified chartered surveyor to consider the adaptation measures necessary to make property resilient or resistant to flooding.

Sources for identifying actual or potential flood risk include:

- government websites
- local enquiries
- local knowledge
- environmental data warehouses (subject to the proviso in section 2.4) and
- other recognised sources.

In many cases, data is publicly available, but the reproduction of data may be heavily controlled. The chartered surveyor should take care not to breach any copyright laws.

4.2.3 Asbestos

Chartered surveyors are reminded of the need to be alert to the actual or potential presence of asbestos in real estate assets, particularly in older buildings, and the importance of ensuring that available information on the presence of asbestos is provided. This is because the presence may impact materially on the value in some cases.

The removal and management of asbestos should be undertaken by appropriately qualified individuals or companies, and the need to make allowance for the costs of doing so should always be carefully considered when undertaking valuation work.

4.2.4 Invasive non-native species

Many jurisdictions across the globe suffer from the impacts invasive non-native species can have on property interest. The sheer diversity of species involved means that the precise nature, extent and timescale associated with individual cases of risk or impact can vary widely.

Appropriate environmental specialists may need to be appointed to quantify, manage or eradicate the invasive species in question. In individual jurisdictions, there may also be specific legislative or other requirements concerning notification and treatment, as well as liabilities arising from the spread of an invasive non-native species.

Figure 3: Flooding (© Philip Wilbourn)

4.2.5 High voltage overhead tension lines

The presence of these close to the asset being valued should be carefully noted. However, whether they impact value will depend on local circumstances, including market perceptions. They may impact technology systems and may affect certain assets, e.g. because of negative publicity.

4.2.6 Telecommunication base stations

Similar comments to those in section 4.2.5 apply. Telecommunication base stations may, in some cases, impact property values, which again may be attributable to negative publicity.

4.2.7 Solar farms

These are a growing feature across the globe and although there is no known risk directly associated with them, they may affect the perceived amenity or attractiveness of their immediate environs, which may impact value.

Figure 4: Asbestos fly tipping (© Philip Wilbourn)

4.2.8 Wind farms

Wind farms may negatively impact the value of property in the immediate vicinity, or in some cases, slightly beyond, due to:

- being generally more visually intrusive than solar farms
- often having associated noise impacts and
- the potential impacts on protected species of birds.

Again, an additional factor may be negative publicity.

4.2.9 Mineral and shallow mine workings

Historic mineral workings exist in many parts of the world, some well recorded and documented, others of less certain date and extent. Mineral workings of any type can materially impact property, though the nature and degree will vary significantly. In addition, many mineral facilities have also had contaminative land uses in close proximity.

Mineral (including metalliferous and coal) mining is potentially a contaminative land use, whether deep or shallow. Many geographical areas are affected by past, present or possible future surface or underground mining activities. Although there often remains little in the way of surface evidence to indicate that mining once took place, this can be misleading. In many places there is a substantial heritage of abandoned workings, shafts, adits, former spoil heaps, pit heads and tailing dams with little, if any, evidence still visible above ground.

In addition to surface working activity, many mines included other operations, such as the production of coal tar, town gas and other chemical processes associated with gasworks.

In a 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 later searches may reveal the existence of old shafts, when earlier searches did not.

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 from closed, as well as operational, mines.

Past, present or future mining activities can all affect value. Valuers are expected to make themselves aware of where there may have been past mining or other minerals activity in their areas of operation.

Shallow mine or mineral workings can significantly affect property. Chartered 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.

4.2.10 Hydraulic fracturing and other energy recovery methods

Where such activities take place, they may be perceived negatively.

4.2.11 Natural subsidence risk

Natural hazards can also cause ground movement. Such hazards include:

- swelling and contracting clays
- unstable slopes and
- ground dissolution and compression.

Hazards may relate directly to the conditions below ground level, being inherent in the rocks and soils on which structures 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.

Chartered surveyors are expected to have enough knowledge of local factors in the jurisdiction they operate to be able to make a judgment in relation to the specific property.

4.2.12 Radon affected areas

As with other natural hazards, chartered surveyors are expected to be aware of geographical areas or individual locations or properties where the presence of radon may pose a risk, and to reflect this in their valuation report as appropriate.

4.2.13 Waste management processes

The effective and safe management of waste, particularly commercial and industrial, is growing in importance in many jurisdictions and is increasingly subject to legislation. The chartered surveyor needs, where appropriate, to establish and record the waste management competency at the premises being surveyed to ensure compliance with relevant legislation, codes, permits or other approvals.

The chartered surveyor may need to take specialist advice if, where the asset or its manner of use falls short of required standards, the client agrees to quantify adaptation costs associated with ensuring compliance. The valuation may have to be adjusted accordingly.

In the case of landfilling, the presence of such features may negatively impact value due to the fact that it can be unsightly, create noise, odours, dust, and legacy issues long after the facility has closed. Specialist advice may be needed.

Figure 5: Rural fly tipping (© Philip Wilbourn)

4.2.14 Illegal waste dumping

There may be situations where waste has been deposited on land illegally. This should be treated with care since the value of the asset may be materially affected due to the cost of treating and/or removing such waste. Specialist advice may be needed.

4.2.15 Ozone depleting substances

Recovery and disposal of building materials containing ozone depleting substances is a specialist activity that can only be carried out by regulated persons. Again, the appropriateness and manner of use of the asset for the activity concerned may impact value.

4.2.16 Energy performance ratings

Globally, legislation increasingly requires minimum standards of energy management and performance. Chartered surveyors are therefore expected to acquaint themselves with the provisions relevant to the jurisdiction in which they operate and the specific property they are concerned with. It is particularly important to be alert to the fact that the absence of compliance or certification may restrict how the asset can be used in some cases.

4.2.17 Earthquake-prone and geo-thermal areas

Chartered surveyors need to be aware of the potential for and history of earthquake and geo-thermal events in the jurisdictions that they operate.

4.3 Positive factors affecting valuation

Not all environmental factors are necessarily negative in their effect and may indeed have a beneficial impact, e.g. the ability to extract and use water for irrigation. It is important that the chartered surveyor considers any natural attributes and/or amenity value as positive features that may enhance the value of the property where it is clear that market participants take a positive rather than negative view.

5 The sale and transfer of real estate interests in practice:

Environmental considerations, and increasingly broader considerations of sustainability, have a bearing on all aspects of the sale and transfer of real estate including leasehold transactions.

5.1 Flooding

A report commissioned by the RICS Research Trust entitled Flood risk mitigation and commercial property advice: an international comparison (March 2017) reveals that environmental due diligence is ranked equally among other indicators for commercial transactions (see figure 6).

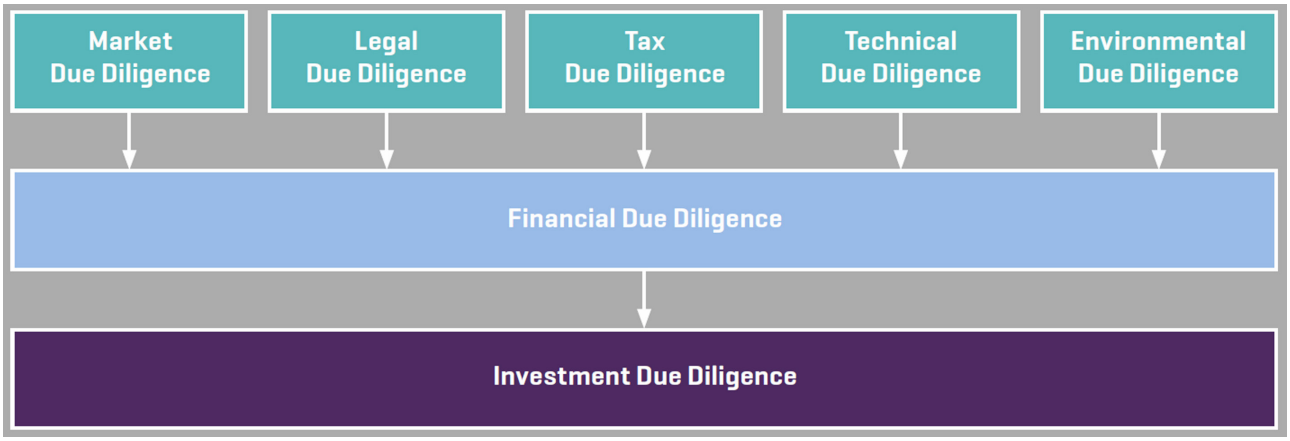

Figure 6: Components of due diligence for property adaptation

Furthermore, the research also illustrated that adaptive measures impact all sectors and stakeholders involved with acquisition and finance (see figure 7 overleaf).

According to *Flood risk mitigation and commercial property advice: an international comparison*:

> 'Loss and damage can be seen to be both direct (e.g. physical damage to buildings and stock) and indirect (e.g. business disruption and loss of business due to direct damage and lack of access). Some of this impact is tangible and can be easily measured and claimed, others are less tangible (such as loss of reputation, issues with renewing insurance) but may erode the viability of a business district in the longer term.'

The report also noted that:

'Studies have suggested that the indirect impacts of flooding often exceed the costs of direct damage and claims for business interruption may dwarf claims against property insurance'.

Therefore, advice on the sale or purchase of the asset, including letting, may need to be considered in connection with:

- preparing sales particulars, with specific reference to not misleading vendors or purchasers
- the terms and conditions of leases
- the impact of any warranties provided by vendor or purchaser
- the question of whether any environmental consideration requires ongoing financial obligations
- the question of whether any environmental consideration imposes significant leasehold obligations for tenants and
- the purchase of an asset on land that, although not affected by environmental considerations, could be considered as such in the future as a result of the nature of its historic or existing use, or its environmental setting.

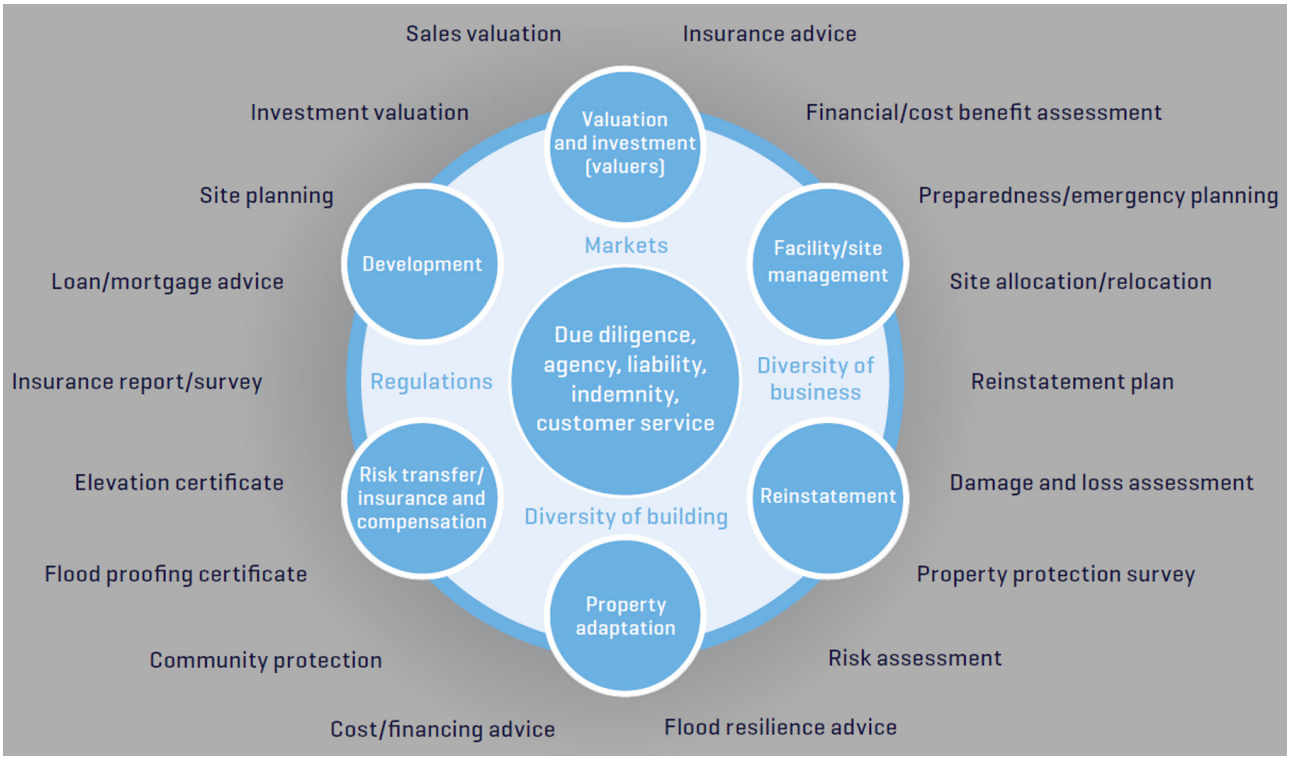

Figure 7: Conceptual model illustrating the potential roles for built environment professionals in supporting commercial property at risk from flooding

5.2 Disposals

The nature of environmental considerations relevant to individual cases can have a material bearing on the disposal strategy and value for the asset concerned. Clients' expectations have to be managed and failure to properly assess all the environmental considerations can lead to these not being met. The sudden and unexpected discovery of issues could produce a poor outcome. This could lead in turn to a claim for negligence.

When property is being brought to market, care should be taken to verify information provided by clients and contained in sales particulars. An environmental screening is recommended in less straightforward cases as an appropriate level of service, prepared by a chartered environmental surveyor or appropriate environmental specialist. This is outlined in section 2.5.

In some jurisdictions, the omission of details can be considered misrepresentation and be subject to judicial sanction. Such sanctions can be both civil and regulatory.

5.3 Acquisitions

Although the maxim of 'buyer beware' holds sway in many jurisdictions, others have seen a more nuanced approach of 'let the informed buyer beware'.

Many lenders or financial institutions have specific investment criteria that are triggered where there are environmental risks and these need to be understood and interpreted when giving advice during the acquisition phase. Where commercial lending is concerned, the due diligence cycle also needs to ascertain whether the property can be insured for all perils, particularly flood risks. It should also consider the cost of adaptation measures, as appropriate, so that this can be taken into account.

It is recommended that chartered surveyors or agents take steps to ensure environmental factors and risks have been properly considered by the legal advisers and the client. If necessary, they should ensure a chartered environmental surveyor or appropriate environmental specialist has been retained to advise on the impact on the property arising from negative or positive environmental considerations. The costs of an appropriate risk assessment are in many cases small, relative to the likely purchase price of the property, and can therefore usually be justified.

To overcome any knowledge gap in less straightforward cases an ESR may be recommended to the client as an appropriate supplement. These are usually prepared by a chartered environmental surveyor or appropriate environmental specialist. Alternatively, other forms of report can be produced but the risk assessment must adequately address the issues set out in the Red Book to explain and underpin the valuation.

Where investment property is being acquired subject to an existing lease, this should be examined carefully to ascertain who is responsible for environmental risks.

In many cases, online services may be used to provide a report but they may not necessarily address all of the issues that a site inspection would reveal. Furthermore, care must be taken in interpreting unattributed statements about the impacts on valuation and lending. See section 2.4.

In other cases, a third-party report is often relied on and care should be exercised if such a course of action is taken, unless the veracity of the data, together with the conclusions, is assured. This may require liaison and discussion with the client, and attention is specifically drawn to the requirements of VPS 3 section 2(h).

Failure to completely address environmental considerations could lead to a negligence claim.

5.4 Lettings

Advice to a landlord or a tenant in letting or occupying a commercial property in respect of environmental considerations should include precisely the same issues as those in a freehold transaction. It is important that both parties are informed of the environmental considerations associated with the transaction.

When advising a landlord in letting property, the terms and conditions of the lease should highlight any obligations for environmental considerations. It may be necessary to obtain an ESR by way of benchmarking the condition of the property when the tenant occupies it, particularly if they are in a polluting industry subject to extensive legislative controls. This may be particularly important if the property is adjacent to a sensitive ecological location, such as a river.

Where businesses are engaged in polluting industries, copies of any relevant operational permits should be obtained and verified. The chartered surveyor should also advise the landlord if these cease to be granted, or are varied or revoked by the regulatory body. Although leases often have provisions requiring compliance with legislative obligations, these may be designed with only planning laws in mind and not other forms of consents.

In the case of industrial property, for example:

- When property has been previously occupied, reference should be made in the leasing particulars to the nature of the previous activities that were carried out.
- The managing agent should prepare a file containing copies of all relevant documents relating to environmental compliance or non-compliance in respect of previous occupiers and any remedial actions taken.
- Where information is not available, the chartered surveyor or managing agent should advise the landlord to commission an independent report of 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.

- Environmental information relating to industrial buildings should be recorded in an ESR, asbestos management plan or similar document, or other reports as set out in section 2. These should be updated every time there is a change in the operations in a building, changes in occupation or as appropriate.

Globally, greater consideration is being given to the energy performance of buildings over their life cycle. In the case of any sustainable building benchmarks, these may form a measure against which monitoring will take place and act as an alert for any deterioration.

There may be a need for a suitably qualified chartered 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 have been met, as this may also be a fertile area of dispute in the future.

With any leasehold property, it is advisable that a legal adviser is consulted on clauses in the proposed lease that could create liabilities if the property was found to be suffering any other form of environmental impairment as a result of the tenant's occupation. Failure to make the prospective tenant aware of possible environmental liabilities might be deemed negligent.

Insurance provisions contained in leases are very important, particularly where there is a significant risk of flooding. Commercial flood insurance may not be available at economic cost or at all in certain jurisdictions and locations. For example, if a building is let on a full repairing and insuring basis, there should be a provision for the landlord to check that the tenant has insured the building for all appropriate environmental risks on an annual basis. Conversely if the landlord insures and the tenant reimburses, the tenant needs to ascertain that the landlord has insured for all environmental risks, otherwise there could be serious implications for the tenant's business as a result.

The ramifications for any rent review could be significant if insurance is not available. As a result, there would be a corresponding effect on investment value.

In some markets, effects on property that result in the diminution of value are being caused by:

- lack of insurance
- flood events
- occupier misuse
- damage to property by means of contamination or waste abuse, creating a less favourable energy rating
- potential dilapidations or
- reasons to degrade the investment value.

6 The environment, property and estate management

The purpose of good estate management policies is to maintain asset value as well as compliance with wider obligations. The role of the chartered surveyor in the management of assets is crucial in maintaining asset value for the benefit of the client.

Where property is let, much depends on the provisions of the lease. It is good practice to ensure environmental considerations are addressed at the outset. However, issues relating to environmental obligations may arise in various areas of property management, such as:

- management agreements
- aspects of health and safety
- managing agent inspections
- vetting tenants and
- matters of use and occupation.

6.1 Management agreements

When appointed by a client and 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 environmental risks affecting land or buildings. They should also ensure the client:

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

This is to ensure the managing agent does not assume responsibility for matters outside of their control, or for which they have not been professionally trained or directly engaged. Furthermore, chartered 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 event of criminal offences.

6.2 Managing agent inspections

Property managers are not assumed to have particular professional skills in the area of contaminated land or in assessing other environmental considerations. Where

additional specialist input is not required, and unless explicitly instructed to the contrary, use of the appropriate property observation checklist(s) in Appendices A-C to record environmental considerations observed on-site is to be regarded as best practice. This does not remove the need for surveyors to remain alert, as a checklist cannot cover every conceivable circumstance

Such matters could lead to the asset value proving to be impaired. These may include:

- use(s) by the tenant that may result in pollution
- signs of leakage from tanks, pipes or similar containers
- storage and management of oils, particularly in garages and rural areas
- activities 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
- evidence of flooding and
- damage to flood defences.

All observations 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 chartered surveyor may also have to report inappropriate activities to a regulator.

If a tenant is undertaking a potentially polluting activity, the landlord and managing agent may be at risk of being held liable for pollution caused by the tenant unless action is taken promptly. 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, they may be found liable for any pollution that may occur. Turning a blind eye to the obvious or deliberately refraining from enquiry for fear of the truth may attract liability. This has ramifications for the managing agent.

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.

6.3 Vetting prospective tenants

In addition to the usual financial checks, the landlord or letting agent should request 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 concerning:

- any potentially hazardous materials that are, or will be, stored or used on the premises, including information as to maximum quantities or volumes
- potentially hazardous operations to be carried out on the premises, including an assessment of possible risks and hours of operation and
- their proposed waste management procedures, including any consents that may be required.

Whether the tenant is able to insure the premises for the nature of the use and occupation should also be considered. These are measures that can be assessed by the managing agent and compliance will help underpin asset value.

Chartered surveyors are reminded that considerations apply to commercial buildings, particularly if there are, or there may develop, bad management practices. Air and water monitoring are essential components in commercial building occupation. An appropriate cleansing and maintenance regime of all environmental media is important. Managing agents should reserve the right in the lease to require or take appropriate action to correct matters, otherwise this may give rise to liability on the part of the landlord.

When inspecting property for the purposes of producing a schedule of dilapidations, chartered surveyors are advised to look for possible damage resulting from polluting activities carried out by tenants. If potential contamination is identified, chartered surveyors should consider what advice to give about the need for specialist investigations before the schedule is completed and served. This may need to be served as part of a wider dilapidations claim for which other specialist advice may be needed.

All chartered surveyors are reminded that with the advent of greater understanding of the energy performance and potential of a building, 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, including so-called 'green leases'.

7 Specialist reports: what the chartered surveyor can and cannot say

Environmental considerations, both from a legal and physical perspective, can produce results that impact the value of property interests. Care should be taken in expressing conclusions, particularly bearing in mind the fact they may need to be reflected or reproduced in an overarching valuation report.

Where the chartered surveyor's draft report refers to, or makes assessments based on, a specialist report made by a chartered environmental surveyor or other specialist, it is often good practice for the draft report to be supplied first to the specialist concerned, for written confirmation that the chartered surveyor has correctly understood and applied the information and advice contained therein. This step, naturally, will depend on the time available.

Recognising that the chartered surveyor cannot exceed the limits of their expertise, it is important that appropriate expertise is used to advise on specialist environmental considerations. In cases where a chartered environmental surveyor, environmental specialist or other expert has been appointed, the following statement may be appropriate for inclusion in reports containing valuations:

'You have instructed [a chartered environmental surveyor, environmental specialist or other expert] to advise you in respect of environmental considerations. We have been supplied with information by [a chartered environmental surveyor, environmental specialist or other expert] as described elsewhere in this report [reference] [and discussed it with them 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 that would 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, this might affect the values/level of possible offers now being reported.'

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. If the chartered surveyor is unsure, they should 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.

The views of the chartered surveyor should be separated from those of the specialists. Unless the chartered surveyor has sufficient experience and PII, they should limit their report to the facts and to the consequences of the opinions of others in respect of environmental considerations.

Appendix A: Property observation checklist for identifying potential environmental issues (commercial and industrial)

Tick the appropriate box with what you see on site													
Part of property inspected			Renewables	Waste manage-ment abuses	Asbestos containing material? (Either in-situ, discarded, or risk to health)	Fly tipping?	Fuel tanks (above or below ground and/or oil staining)	Other tanks or containers	Chemical odours incine-ration areas	Discoloured or smelly water/ liquids leaks discharges	Invasive non-native species	Irregular topo-graphy	Vege-tation dieback	Utilities
Buildings:	Y	N												
occupied?														
vacant?														
dilapidated?														
Basement and subterranean features (e.g. air raid shelters)														
Outbuilding, including garages and stores														
Hardstanding														

Tick the appropriate box with what you see on site												
Part of property inspected	**Renewables**	**Waste manage-ment abuses**	**Asbestos containing material? (Either in-situ, discarded, or risk to health)**	**Fly tipping?**	**Fuel tanks (above or below ground and/or oil staining)**	**Other tanks or containers**	**Chemical odours incine-ration areas**	**Discoloured or smelly water/ liquids leaks discharges**	**Invasive non-native species**	**Irregular topo-graphy**	**Vege-tation dieback**	**Utilities**
Agricultural land												
Derelict or rough ground												
Landscaping and/or natural woodland												
Water course or adjacent thereto												
Surrounding area												
Extent of inspection of immediate vicinity												

Note: This checklist is not designed for use in respect of residential property or rural property.

	Observed current use of the subject property		Evidence seen of such uses having taken place within the vicinity	
	Yes	No	Yes	No
Industry/manufacturing?				
Waste management?				
Mineral extraction?				
Vehicle maintenance or refuelling?				
Brownfield?				
Is the property near water?				

	Observed current use of the subject property		Evidence seen of such uses having taken place within the vicinity	
	Yes	No	Yes	No
Is the property in a hollow or at the bottom of a hill where flood water could collect?				
Are you aware of any flood events affecting the property or immediate area?				
Is the property protected by flood defences?				
Observable evidence of flooding?				
Have you obtained flood data specific to the property?				

Notes or other observations:

Where additional specialist input is not required, and unless explicitly instructed to the contrary, use of this property observation checklist to record environmental issues observed on-site is to be regarded as best practice. This does not remove the need for surveyors to remain alert, as a checklist cannot cover every conceivable circumstance.

Note: This checklist is not designed for use in respect of residential property or rural property.

Appendix B: Property observation checklist for identifying potential environmental issues (rural)

Tick the appropriate box with what you see on site													
Part of property inspected	Renew-ables	Waste manage-ment abuses	Asbestos containing material? (Either in-situ, discarded, or on site)	Fuel tanks (above or below ground, bunded, and/ or oil staining)	Other tanks, pipelines or containers	Chemical odours incine-ration areas	Discoloured or smelly water/ liquids leaks discharges	Spreading of non-farm waste	Irregular topo-graphy	Vege-tation dieback	Invasive non-native species	Fly tipping	Utilities
Main farmstead													
Subsidiary farmstead or buildings. Ancillary users, e.g. processing, retails													
Farm waste containment													

Tick the appropriate box with what you see on site													
Part of property inspected	Renew-ables	Waste manage-ment abuses	Asbestos containing material? (Either in-situ, discarded, or on site)	Fuel tanks (above or below ground, bunded, and/ or oil staining)	Other tanks, pipelines or containers	Chemical odours incine-ration areas	Discoloured or smelly water/ liquids leaks discharges	Spreading of non-farm waste	Irregular topo-graphy	Vege-tation dieback	Invasive non-native species	Fly tipping	Utilities
Livestock buildings													
Livestock yard/ handling/ treatment/ dipping													
Workshops/ machinery and chemical stores													
Bulk silage or wet feed containment													
Hard-standings and outside storage area													

Tick the appropriate box with what you see on site													
Part of property inspected	Renew-ables	Waste manage-ment abuses	Asbestos containing material? (Either in-situ, discarded, or on site)	Fuel tanks (above or below ground, bunded, and/ or oil staining)	Other tanks, pipelines or containers	Chemical odours incine-ration areas	Discoloured or smelly water/ liquids leaks discharges	Spreading of non-farm waste	Irregular topo-graphy	Vege-tation dieback	Invasive non-native species	Fly tipping	Utilities
Derelict/rough ground/ former quarries													
Watercourses/ ditches/ private water supplies													
Agricultural land													
Woodland/ scrub													
Surrounding areas													

Note: This checklist is not designed for use in respect of residential property or commercial or industrial property.

	Observed current use of the subject property		Evidence seen of such uses having taken place within the vicinity	
	Yes	No	Yes	No
Industry/manufacturing?				
Waste management?				
Mineral extraction?				
Vehicle maintenance or refuelling?				
Brownfield?				
Is the property near water?				
Is the property in a hollow or at the bottom of a hill where flood water could collect?				
Are you aware of any flood events affecting the property or immediate area?				
Is the property protected by flood defences?				
Observable evidence of flooding?				
Have you obtained flood data specific to the property?				

Notes or other observations:

Where additional specialist input is not required, and unless explicitly instructed to the contrary, use of this property observation checklist to record environmental issues observed onsite is to be regarded as best practice. This does not remove the need for surveyors to remain alert, as a checklist cannot cover every conceivable circumstance.

Note: This checklist is not designed for use in respect of residential property or commercial or industrial property.

Appendix C: Property observation checklist for identifying potential environmental issues (residential)

Tick the appropriate box with what you see on site													
Part of property inspected			Renewables	Waste manage-ment abuses	Asbestos	Fly tipping	Oil fuel tanks (above or below ground, or bunded	Other tanks or containers	Incine-ration areas	Septic tank overflow	Invasive non-native species	Irregular topo-graphy	Vege-tation dieback	Utilities
Buildings:	Y	N												
occupied?														
vacant?														
dilapidated?														
Basement and subterranean features (e.g. air raid shelters)														
Outbuilding, including garages and stores														
Gardens														

Tick the appropriate box with what you see on site												
Part of property inspected	**Renewables**	**Waste manage-ment abuses**	**Asbestos**	**Fly tipping**	**Oil fuel tanks (above or below ground, or bunded**	**Other tanks or containers**	**Incine-ration areas**	**Septic tank overflow**	**Invasive non-native species**	**Irregular topo-graphy**	**Vege-tation dieback**	**Utilities**
Surrounding area												
Extent of inspection of immediate vicinity												

Note: This checklist is not designed for use in respect of rural property or commercial or industrial property.

	Observed current use of the subject property		Evidence seen of such uses having taken place within the vicinity	
	Yes	No	Yes	No
Industry/manufacturing?				
Waste management?				
Mineral extraction?				
Vehicle maintenance or refuelling?				
Brownfield?				
Is the property near water?				
Is the property in a hollow or at the bottom of a hill where flood water could collect?				
Are you aware of any flood events affecting the property or immediate area?				

	Observed current use of the subject property		Evidence seen of such uses having taken place within the vicinity	
	Yes	No	Yes	No
Is the property protected by flood defences?				
Observable evidence of flooding?				
Have you obtained flood data specific to the property?				

Notes or other observations:

Where additional specialist input is not required, and unless explicitly instructed to the contrary, use of this property observation checklist to record environmental issues observed onsite is to be regarded as best practice. This does not remove the need for surveyors to remain alert, as a checklist cannot cover every conceivable circumstance.

Note: This checklist is not designed for use in respect of rural property or commercial or industrial property.

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