RICS PROFESSIONAL STANDARD

Japanese knotweed and residential property

UK

1st edition, January 2022

Effective from 23 March 2022

RICS®

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RICS professional standard, UK

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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

Document status	Definiton
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.

Glossary

Included in this glossary are terms referred to in the professional standard and other commonly used terms that the valuer may encounter when undertaking desk research or investigations to support residential valuations.

Term	Definition
Canes	Tall, hollow, bamboo-like stems.
Crown	The visible part of the rhizome from which canes grow. Crowns can produce many new canes and, because of their size, can be resistant to burning or drying out.
Dormancy	The ability of Japanese knotweed rhizomes (intact or fragmented) to survive long periods (decades) in the soil without growing. Subsequent disturbance may stimulate full or partial recovery and re-growth. Dormancy is a natural characteristic of the plant in response to burial, drought, etc. but may also be induced by some herbicide treatments. Dormancy may end naturally over time, but any soil/ rhizome disturbance will increase the likelihood of early re-growth.
Environmental Protection Act 1990	Part II of the Environmental Protection Act 1990 (EPA 1990) contains a number of legal provisions concerning 'controlled waste'. Although Japanese knotweed is not specifically mentioned in the Act, any soil or plant material contaminated with Japanese knotweed propagules (rhizomes or live shoots, as opposed to dead canes) that a person discards, intends to discard or is required to discard is likely to be classified as controlled waste. The most relevant provisos are in sections 33 and 34 of the Act.
Eradication	The term 'eradication' is commonly used to mean removing Japanese knotweed through physical extraction, or otherwise killing Japanese knotweed using chemical or other means. The nature and biology of Japanese knotweed means the former can be extremely disruptive and expensive, and may not always be completely successful. Meanwhile, the latter may appear to have been achieved but dormant rhizomes may still be present below ground level and capable of being stimulated back to active growth if disturbed at a later date, for example by excavations for foundations. For these reasons 'eradication' should not generally be regarded as a primary objective unless absolutely essential, for example in anticipation of construction works, when complete physical removal should be undertaken.

Term	Definition
Infestation	Any amount of Japanese knotweed on a site, above or below ground level, can be regarded as an infestation. However, an assessment by a residential practitioner can only take account of evidence visible at the time of an inspection, and this is the basis of reporting used here. References to infestation in this standard should therefore be taken to refer only to visible evidence of infestation, unless the context obviously indicates otherwise.
Japanese knotweed	The common type of Japanese knotweed is known as *Reynoutria* (formerly *Fallopia*) *japonica*, but there is a smaller, compact variety called *Reynoutria japonica var. compacta*, which reaches a height of 1m. Giant knotweed (*Reynoutria sachalinenesis*) can grow up to 5m and a hybrid between Japanese knotweed and Giant knotweed, *Reynoutria x bohemica*, is also found in the UK. For all practical purposes, there is no distinction made in dealing with the different varieties. For the purposes of this standard, 'Japanese knotweed' refers to all types of knotweed.
Registered Valuer	An RICS member who is subject to the quality assurance mechanism that monitors all RICS members who carry out valuations within the scope of RICS Valuation – Global Standards (Red Book Global Standards) in order to ensure consistent standards.
Remediation	In this standard, the term 'remediation' means the process of treating, managing, controlling or removing Japanese knotweed, but does not imply the use of any particular method.
Residential practitioner	In the context of this standard, 'residential practitioner' refers to RICS members involved with advising their clients about all types of residential property.
Rhizome	Underground stem that enables Japanese knotweed to survive over winter when the canes die back. Small sections of rhizome, less than 1cm or 1g, can regrow into a new plant.
Stand	A growth of plants in a particular area. Stands can be small, large, dense, sporadic, etc. and the term is frequently used in descriptions of Japanese knotweed infestations.

1 Introduction

1.1 Scope

This professional standard replaces the RICS information paper *Japanese Knotweed and residential property*, 2012. It reflects an improved understanding of Japanese knotweed. Like its predecessor, its primary objective is to assist RICS members who encounter Japanese knotweed while undertaking valuations or surveys of residential property in the UK. It is intended to help residential practitioners make a preliminary assessment and to provide appropriate initial advice to their clients, whether inspecting for mortgage lending or pre-purchase purposes. Although this standard deliberately focuses on residential property, practitioners in other surveying and valuation disciplines may also find the content helpful when Japanese knotweed is encountered.

This introductory section outlines developments in the understanding of Japanese knotweed since the original information paper was published in 2012 and references more recent publications that have influenced its development.

Sections 2 and 3 of the standard summarise the nature of the Japanese knotweed problem and briefly consider aspects of the RICS regulatory context within which RICS members undertake surveys and valuations. These will be largely familiar to RICS members but the introduction of the RICS Home survey standard, which became effective on 1 March 2021, may have required some adjustments to previously established practices. The wider background perspective may assist the understanding of non-members.

Section 4 sets out a revised assessment methodology to help valuers and surveyors objectively describe the scale of a Japanese knotweed infestation. This will help other stakeholders to make balanced and measured decisions. Sections 5 and 6 deal with reporting to and advising clients, while Section 7 outlines factors that may need to be considered when valuing a residential property affected by Japanese knotweed.

This standard provides a framework for RICS members to categorise infestations of Japanese knotweed and only briefly summarises the main methods of remediation. Further information about the identification and remediation of Japanese knotweed can be found in the publication by the Property Care Association, Japanese knotweed: Guidance for Professional Valuers and Surveyors, which deals with these important subjects in depth.

This standard should be read in conjunction with the latest edition of RICS Valuation – Global Standards (Red Book Global Standards). However, its scope extends beyond valuations conducted in accordance with Red Book Global Standards. Residential practitioners are therefore also encouraged to consider this standard when carrying out the following professional services:

- preparing valuations for the purposes of agency

- providing level one, level two and level three surveys, and
- Single Surveys in Scotland.

The standard includes reference to the main UK legislative and regulatory provisions that affect, or are considered likely to affect, the value of residential properties where Japanese knotweed is present. Although these legislative and regulatory frameworks differ between England, Wales, Scotland and Northern Ireland, the essential features governing Japanese knotweed control and disposal are broadly similar. The requirements of this standard do not conflict with any relevant legislation. In the unlikely event that a conflict should arise, the legislation will take precedence.

1.2 Background

Japanese knotweed is a hardy bamboo-like deciduous perennial plant that grows quickly and strongly. It spreads through its underground rhizomes or shoots, and thick clumps or stands can quickly grow to a height of over 2m during the spring and summer. Introduced into the UK in the mid-19th century, it was initially popular with landscapers because of its ability to grow quickly and form dense screens. However, it soon became a problem due to its propensity to spread and establish easily. Its biological and physiological characteristics have allowed it to take advantage of human interference, ground disturbance and the movement of 'contaminated' soil. Its ability to out-compete native plant life, lack of natural predators and ignorance on the part of landowners has resulted in its widespread distribution to all parts of the UK, Europe and North America.

Japanese knotweed was included in the original list of non-native species (so-called 'Schedule 9') in the *Wildlife and Countryside Act* 1981. This made it an offence to 'plant or otherwise cause Japanese knotweed to grow in the wild'. This recognition of environmental impact is why soil or plant material contaminated with Japanese knotweed is likely to be classified as 'controlled waste' under the *Environmental Protection Act* 1990.

Japanese knotweed caused increasing problems in the residential market due to concerns that the plant may cause damage to properties. These originated from an understanding that Japanese knotweed is a long-lived and hard-to-kill plant which, left unmanaged, can rapidly colonise and dominate not just green areas but can affect hard landscaped areas and disrupt lightweight structures and garden walls. Regrettably, the impact in the market was also increasingly influenced by exaggerated media reporting, resulting in an adverse public perception out of all proportion to the actual problem. This standard is intended to provide clarity and help to rebalance perceptions.

1.3 Previous research and publications

The RICS information paper published in 2012 established a protocol for the objective assessment of the risk to a property posed by Japanese knotweed. It specified four risk categories, using a distance of 7m from buildings and boundaries as the defining measurement. This 7m distance was recognised at the time as being potentially conservative,

but it had previously been used in an Environment Agency publication and no justifiable alternative could be identified.

Practical experience after 2012 increasingly questioned a widely held assumption that Japanese knotweed posed a structural risk to building foundations. During 2016, practicing RICS surveyors and specialist contractors contributed data from surveys towards research on the typical impact of Japanese knotweed. The research paper by Fennell et al (*Japanese knotweed (Fallopia japonica): An analysis of capacity to cause structural damage (compared to other plants) and typical rhizome extension*), published in 2018, reported that Japanese knotweed poses less of a risk of damage to substantial buildings than many trees or woody shrubs. It also led to a general agreement that 3m is a more appropriate distance measurement of typical spread of the root/rhizome network in the soil than the 7m distance adopted for the original risk assessment.

Meanwhile, an extended research project investigating control and management measures widely used for the management of invasive knotweeds was also published in 2018 (*Optimising physiochemical control of invasive Japanese knotweed*, Jones et al). This evidence-based research identified the optimum method of controlling Japanese knotweed in an economically and environmentally sustainable manner. Although this research acknowledged the difficulty of eradicating well-established stands of Japanese knotweed within a short timescale, it confirmed that control of an infestation was readily achievable when properly undertaken for sufficient time (normally 3–5 years for stands smaller than 100 m^2). Note that eradication methods by physical means were not tested in this research.

In 2019, the House of Commons Science and Technology Committee published a report on an enquiry titled *Japanese knotweed and the built environment*. This report acknowledged the role of the existing RICS risk assessment framework in providing lenders with the confidence to lend against properties affected by Japanese knotweed. However, it described the '7m rule' as a blunt instrument that did not reflect the latest scientific evidence, and called for a revised assessment process that is:

> 'much more nuanced and evidence-based [...] to reflect the latest thinking on the significance of Japanese knotweed, in relation to the size of the infestation, the distance from the property, and the potential risk of any damage'.

In 2020, in response to the House of Commons publication, Risk & Policy Analysts (RPA) published a report on behalf of the Department of Environment, Food and Rural Affairs (Defra) on an investigation into Japanese knotweed, comparing the approach taken in the UK with other countries (*International Approaches to Japanese Knotweed in the Context of Property Sales*). The research found that 'no other country takes a similar approach to Japanese knotweed in the context of property sales as the UK', but also that 'the UK approach is not disproportionate given the level of invasion of knotweed and the control measures that may be required'. However, specifically in the context of UK property sales, it was noted that:

> 'excessive burden stems from the stigma surrounding Japanese knotweed in the UK, where beliefs about its effects are exaggerated, creating nervousness

among buyers, sellers and lenders during the property buying process. This impacts the efficiency of the approach as parties become unduly risk-averse.'

It also commented that 'attitudes are currently disproportionate to the physical risk posed by Japanese knotweed'. As a direct consequence, 'the media, and as a result the public, have a disproportionate fear of the problem'.

The Defra report made recommendations for changes in approach within the UK, including:

- reassessment of the risk categories presented in the RICS guidance to provide clarity for lenders and enhance coherence in lending policy
- provision of consistent professional advice to reframe Japanese knotweed as a mitigatable environmental issue, rather than solely as a property or social issue
- recognition of an increasing awareness that eradication of Japanese knotweed is not a helpful objective, and that the focus should be on management and control
- public education and awareness-raising campaigns are needed to address the stigma of knotweed and reassure potential house buyers/sellers that the implementation of management plans for Japanese knotweed provides appropriate mitigation; such a campaign would help foster the necessary reassurance to both lenders and buyers to enable balanced and measured decisions to be taken in the context of property sales, and
- a change in language by professionals to enable the 'normalisation' of knotweed as an environmental issue rather than only being a social/property issue. This would still enable Japanese knotweed to be managed as an invasive species, but fully considering its environmental impacts rather than only its physical impacts on property.

This standard directly addresses the concerns of the House of Commons Science and Technology Committee and responds to the issues raised in the report by RPA on behalf of Defra by introducing a new assessment process. The professional understanding of Japanese knotweed has increased significantly since 2012 and evidence from the latest research has enabled the assessment process to be focused on the need to manage Japanese knotweed rather than any perceived risk to the structure of dwellings. The distance-based 'blunt instrument' of the previous assessment process has been replaced with a more specific consideration of the impact of an infestation at a property.

However, the new process still delivers a straightforward and objective categorisation of Japanese knotweed infestations because this provides the clarity that is essential for lenders and will continue to ensure confidence and trust among the wider stakeholders.

As the 2012 RICS information paper acknowledged, the residential property market has faced controversial issues before, which have been largely resolved and assimilated into valuation and survey processes. This standard is the next step in managing the adjustment in the residential property market to the issues posed by Japanese knotweed.

1.4 Effective date

This standard is effective from 23 March 2022.

2 The Japanese knotweed problem

2.1 Understanding the problem

Japanese knotweed is certainly a challenging issue, but the reality does not mirror common public perception. This is why there is a need for this standard to provide clarity and confidence in the market when Japanese knotweed is encountered, through consistency in the initial assessment and provision of advice to clients by RICS members.

It may also be helpful to consider Japanese knotweed in the context of other plants. Brambles can take over gardens if left uncontrolled, and gardeners well understand the difficulties of dealing with persistent invasive weeds such as bindweed. The concept of zero tolerance of weeds does not align with weed management generally, where the requirement is for regular maintenance rather than seeking permanent eradication.

Experience and research in recent years mean that the problems posed by Japanese knotweed in a domestic residential setting are now better understood. For example:

- Japanese knotweed rarely causes **structural** damage to substantial buildings such as dwellings. Large stands or growths of Japanese knotweed, if left uncontrolled, can damage lightweight structures, freestanding walls, retaining walls, paths, hardstandings, drains and other ancillary features but, even in immediate proximity to significant structures, Japanese knotweed is not typically associated with major issues such as subsidence, heave or impact damage. The 2018 paper by Fennell et al explains why the biology of Japanese knotweed means it is less capable of causing significant structural damage than trees or many woody plant species such as buddleia.
- The treatment of Japanese knotweed is expensive, disruptive and can affect the quiet enjoyment of a property for a number of years. By contrast, killing or removing buddleia or trees is comparatively straightforward.
- Ground affected by Japanese knotweed cannot be developed without taking special precautions, typically including the removal and disposal of contaminated soil by appropriately licensed operators. This will increase development costs.
- Remediating Japanese knotweed growth in a neighbouring property or on adjacent public land is more problematic than growth solely on the subject property because the property owner lacks effective control over the treatment regime.
- Japanese knotweed that crosses property boundaries can sometimes result in expensive legal action that is often fuelled by 'no win, no fee' organisations.
- The resolution of Japanese knotweed problems can become complicated where it affects flats in blocks or conversions. In some circumstances, it is possible for the saleability of

all flats in a building to be affected if the responsible person or body (whether freeholder, management company or individual owner) does not adopt a suitable approach. Flats may be remote from the Japanese knotweed but in rare circumstances, leaseholders may ultimately be left with few options other than legal action.

It is acknowledged that currently the presence of Japanese knotweed may be a significant impediment to the sale and purchase of a property, and it can affect both value and saleability. This effect may be present irrespective of whether the Japanese knotweed is close to the dwelling, at the bottom of a long garden or actually damaging ancillary features. It is often the mere presence of the Japanese knotweed that is regarded as the problem, while any damaging effects are secondary.

Unfortunately, the issue with Japanese knotweed in the market has become to a large extent self-perpetuating, with the Defra report describing 'linguistic alarmism' in the media as a significant influence on public opinion. The exaggerated public perception of the problems caused by Japanese knotweed has meant that the impact in the marketplace is often out of all proportion to the cost of remediation. Even where Japanese knotweed has been effectively remediated, experience has shown that some properties may retain a 'stigma' for a period afterwards, with a lingering, if diminishing, negative perception and a corresponding adverse impact on saleability.

This places valuers in a difficult position. They understand the reality of the physical problems that Japanese knotweed can cause but they must 'follow the market and not lead the market'. Their role is to take a holistic approach and reach a professional judgement by striking a balance that accounts appropriately for market sentiment and the facts relevant to the property being valued. This paradox is acknowledged in the Defra report, which states that 'Valuers recognise all of this but must reflect public perception and the resulting impact on values'. Section 7 of this standard provides guidance to valuers on the factors that may need to be taken into account when valuing a residential property affected by Japanese knotweed.

2.2 Typical scenarios

A typical Japanese knotweed infestation in a residential property may result in a loss of amenity, some disruption to landscaped areas, driveways, paths, etc. and possibly damage to footings or foundations of lightweight structures, but it is very rare for there to be structural damage to the foundations or walls of dwellings. Typical effects and affected areas that may be encountered are:

- **Gardens**: In many cases there is a loss of amenity. This may range from a minor inconvenience to a major loss.
- **Patios, paths and driveways**: Often there may be no major damage to patios, paths and driveways relating to the presence of Japanese knotweed. However, like many other plants, Japanese knotweed can sprout up between patio slabs, joints in concrete driveways and cracks in brick paving. If the plant is allowed to grow unconstrained, slabs

may be lifted. Tarmac surfaces are also susceptible to damage, particularly around edges, and certainly if laid on top of Japanese knotweed.

- **Boundary, garden and retaining walls**: In the main, well-built boundary, garden or retaining walls should resist damage from Japanese knotweed. However, like many mature shrubs and trees, very mature stands of Japanese knotweed (with massive root 'crowns') can undermine or push over garden walls over a period of years.
- **Outbuildings**: As with many other plants, mature stands of Japanese knotweed can worsen existing damage to lightweight, insubstantial and poorly founded outbuildings such as garden sheds, greenhouses and, in very rare cases, poorly built garages.
- **Conservatories**: Although the effects may be like those described for outbuildings, owners understandably attribute greater importance to these structures. Where serious difficulties are encountered, it is usually due to a conservatory having been constructed on top of mature, untreated Japanese knotweed due to inadequate site clearance, rather than Japanese knotweed 'invading' the conservatory from a nearby location.
- **Drains and other buried services**: Like other trees and shrubs, Japanese knotweed roots/rhizomes can exploit existing cracks and gaps in drainage pipes in search of water, potentially causing further damage and, in some cases, blocking drains. Large, densely packed mature stands of Japanese knotweed can disrupt drain runs where allowed to grow unconstrained for many years.
- **Multiple affected properties**: In some localities, large areas of mature infestation can span multiple landowner boundaries. This typically occurs where dwellings are adjacent to non-residential land or in areas where there is a preponderance of short-term lettings, for example annual student lets.

2.3 Implications of the Environmental Protection Act 1990

The *Environmental Protection Act* 1990 contains legal provisions that designate Japanese knotweed-contaminated soil as 'controlled' waste. Only properly licensed organisations may remove this waste from a property, and they must take it to appropriately licensed waste facilities. This can have serious implications for owners who want to develop their property. In properties affected by Japanese knotweed, large amounts of contaminated soil can result from activities such as:

- adding an extension to the main building
- redesigning the garden and
- maintaining and repairing the property following a Japanese knotweed infestation (for example, re-laying paths and drains).

The need for licensed removal of this contaminated soil and any associated plant material will obviously add to the cost of the work. The cost of removing Japanese knotweed-contaminated soil and possibly protecting works with a root barrier can be significant. Guidance from the Environment Agency is that waste should be minimised and various

proportionate solutions to reduce the amount of waste are often available, but the financial impact of Japanese knotweed on this type of work must not be underestimated.

2.4 Wider environmental implications

While redirecting the focus of Japanese knotweed towards its wider impact, rather than solely as a risk to buildings, it is important also to be mindful of broader environmental implications. Ignoring Japanese knotweed is not an acceptable strategy, either from a local or national perspective, but remediating Japanese knotweed may involve choices between the use of herbicides over a number of years, separation and removal of the rhizome system from excavated soil, or the removal of substantial volumes of contaminated waste soil to landfill sites. Individually these pose significant environmental issues in themselves, but together they have national implications. In each individual case, the objective should be to implement the minimum acceptable intervention to achieve the desired objective at the lowest environmental cost.

As the Defra report recommends, there should be 'an increasing awareness that eradication of Japanese knotweed is not a helpful objective, and that the focus should be on management and control'. There will be circumstances in which physical removal is the most appropriate option but, as far as possible, this should be used sparingly rather than being seen as the default solution.

Section 6 of this standard briefly describes remediation options, but more detail is provided in the Property Care Association document Japanese knotweed – Guidance for Professional Valuers and Surveyors.

3 Property inspection and Japanese knotweed

3.1 Valuation or survey?

RICS members understand that property inspections may be carried out to provide a valuation (an opinion of market value), a survey (an appraisal of a property's structure) or a combination of the two. The depth of inspection varies significantly depending on the specific requirements, but unfortunately this important distinction is not always understood by the public, especially when basic pre-purchase valuations carried out for lending purposes are misinterpreted by purchasers as being more detailed surveys.

A valuation inspection is focused on identifying the key attributes and factors that affect the value of the subject property. It is necessarily much more superficial than a survey, which involves an assessment of the physical structure of a property and factors that may affect its condition.

The introduction of the RICS Home survey standard, 1st edition, in March 2021 aimed to clarify the difference between different levels of survey and ensure that private clients are fully informed about the options available.

It is important to recognise that standard residential valuations and surveys are not specifically focused on finding and advising on Japanese knotweed, any more than they are intended to provide formal risk assessments. However, a valuer or surveyor understands that if a significant personal risk issue, such as a defective balcony railing, becomes apparent during the normal course of an inspection, it needs to be reported to the client. In the same way, RICS members must be mindful that Japanese knotweed may be encountered during any inspection. When this happens, the valuer or surveyor should be capable of providing guidance to the client that is appropriate to the level of inspection.

RICS members should be aware that standard clauses in Terms and Conditions of Engagement attempting to exclude any liability associated with the presence of Japanese knotweed are unlikely to meet the requirements of the Consumer Rights Act 2015 or withstand the scrutiny of the courts.

3.2 Mortgage valuations

The requirements for most physical mortgage valuation inspections are specified in UK VPGA 11 of RICS Valuation – Global Standards: UK national supplement.

UK VPGA 11.3 states:

> '1. The visual *inspection* to be undertaken in the present context covers as much of the exterior and interior of the property as is readily accessible without undue difficulty or risk to personal safety. Although personal judgement has to be used, this inspection should include all of the property that is visible when standing at ground level within the boundaries of the site and adjacent public/ communal areas, and when standing at the various floor levels [...]
>
> 2(c) The *inspection* includes garaging, car parking, other outbuildings (excluding leisure complexes) of permanent construction and any other structures attached to the dwelling. If relevant, their impact on the value of the property is to be noted [...]
>
> 2(e) The land within the ownership should be inspected as far as is practicably possible, and any material matters recorded and reported.
>
> 2(f) Where there are locational factors that may impact value, they should be recorded and reported, with some comment where appropriate. Certain problems, such as flooding, mining settlement, subsidence, woodworm, invasive vegetation, radon gas, mundic and other issues are particularly prevalent in certain districts. If appropriate, the valuer should make some reference to these defects, even if the subject property does not appear to be affected at the time of the *inspection*.'

3.3 Surveys for pre-purchase advice and other purposes

The RICS *Home survey standard* makes it mandatory for surveys, typically pre-purchase surveys, to be benchmarked against three defined inspection and reporting levels. Levels one and two are described as offering professional reports at an economical price. A level three survey is typically the most thorough and detailed type of pre-purchase survey offered by RICS members.

Individual services offered by surveyors may vary from the defined levels, but surveyors' terms and conditions of engagement are required to specify what these variations are in relation to the benchmarked levels. The standard requires surveyors to make their clients aware of the differences in inspection and reporting between the different levels. The depth and amount of detail required for any given survey and report will therefore depend on the terms and conditions of engagement agreed with the client.

If an RICS member has the skill, knowledge and training to include the additional service of identifying and advising on Japanese knotweed as part of a pre-purchase survey, they can offer that, providing it is covered in their terms and conditions of engagement and it is discussed and agreed with the client.

For most RICS members however, if a client specifically requires advice on whether or not Japanese knotweed is present at a property, or advice on remediation, they should

recommend the client commissions an inspection or advice from a specialist remediation company that is a member of a recognised trade body.

3.4 Knowledge of the area and pre-inspection checks

The surveyor should be familiar with the type of property to be inspected and the area in which it is situated, but there is also a requirement to undertake appropriate pre-inspection research. The depth of desktop research will depend on the level of service, but should include information about the general environment, neighbourhood and subject property.

Surveyors are advised to ensure that they utilise publicly available resources. Online distribution map resources may give some rough indication of the local frequency of Japanese knotweed in an area. In some regions, local authorities may provide useful information, especially where Japanese knotweed infestations are common. Appendix A lists some further sources of information.

Some online street and aerial imagery incorporates timelines with earlier images of the same location. Street imagery can be especially helpful at showing the subject property and surroundings, including visible Japanese knotweed, in previous years and in different seasons.

Neighbourhood features associated with the growth of Japanese knotweed typically include the presence of:

- local water sources, such as culverts, ponds, canals and lakes
- public and private paths, cycle-paths, roads, railway or underground railway embankments, dual carriageways and motorways
- large open spaces, car parks and derelict and cleared sites, and
- commercial and industrial buildings, workshops, storage depots and similar.

Likely locations for Japanese knotweed growth can be identified prior to and after the actual inspection, for example while driving through the neighbourhood, arriving at or leaving the property, parking and preparing for the inspection.

3.5 Information from the vendor

It is important that, where relevant and practical, the owner and/or seller or their agent should be asked whether the property or any neighbouring properties have been affected by Japanese knotweed and, if applicable, for details of any Japanese Knotweed Management Plan (JKMP) or warranties or guarantees. Ideally this should be done at the start of the assessment process so any information obtained can be followed up during the inspection. The client should also be advised to ask their legal adviser to specifically enquire about any JKMP and any associated warranty or guarantee.

3.6 The inspection of the property

The requirements for inspecting the grounds vary between the survey levels, and Appendix B of the RICS *Home survey standard* illustrates differences between the inspection levels. It states that at all survey levels 'the RICS member will carry out a visual inspection of the grounds from within the boundaries of the subject property and, where necessary, from adjoining public property.' The Appendix does not provide a comprehensive listing of what is or is not inspected, but provides 'critical benchmarks around which an RICS member's service can be built.'

The Appendix describes the benchmark for a level one survey as 'a cursory inspection of the grounds during a general walk around.' For a level two survey, the benchmark is 'a thorough inspection of the grounds, noting any limitations.' At level three, the benchmark states that:

> 'As in level two, the RICS member should perform a comprehensive inspection of the grounds, noting any limitations. Specific defective features and other matters associated with the grounds can be costly to resolve and may affect the client's decision. Consequently, the RICS member should fully account for these during a level three service and be prepared to follow the trail of suspected problems to a greater extent than at levels one and two.

Examples include assessing retaining walls in danger of collapsing, deeply sunken paths or driveways, and dilapidated boundary walls or fences, as well as the legal and insurance implications.'

The descriptors 'cursory', 'thorough' and 'comprehensive', especially the last two, must be understood in the context of a survey inspection of a whole property, of which the grounds are only one element. They must not be interpreted as requiring a plant-by-plant check for Japanese knotweed. The potential difficulties faced by surveyors and valuers at properties with larger plots, where planting is dense, with boundaries that are difficult to see or access for some reason, or defined by hedges or high fences are fully recognised, not to mention the practical constraints imposed by the seasons and the weather conditions on the day of the inspection.

The inspection should include consideration of adjoining properties where reasonably possible, especially along the boundaries, when standing at ground level within the boundaries of the site, when standing at the various floor levels within the property and from adjacent public/communal areas. If views are unduly restricted, this should be noted.

The measure of adequacy of any individual inspection remains the long-established one of 'reasonableness', which is largely determined by the particular circumstances facing the surveyor on the day of the inspection. Experience has shown that detailed site notes supported by photographs frequently assist in demonstrating the situation at the time of an inspection and any limitations imposed on its scope.

There are many reasons why a completely competent inspection might not identify the presence of Japanese knotweed at a property. For example, small areas of Japanese

knotweed may be difficult to see, especially outside the growing season; vegetation may have been cut down; and gardens may be completely cleared during renovation works. In areas where Japanese knotweed has previously been successfully treated with herbicide, there will be no visible growth above ground but dormant rhizomes may still be present below ground level. These will not be apparent during an inspection, even though the dormant rhizomes may be stimulated back to regrowth and require further treatment if they should be disturbed at a later date, for example by excavation for foundations. Further details on circumstances where identification may be difficult are described in the Property Care Association document *Japanese knotweed – Guidance for Professional Valuers and Surveyors*.

Nevertheless, if Japanese knotweed is clearly visible on site during the normal course of an inspection, it is reasonable to expect, all other things being equal, that it should be identified by a valuer or surveyor and reported to the client, along with appropriate recommendations. It is worth repeating, however, that valuations and pre-purchase surveys by RICS members should not be regarded as equivalent to, or substitutes for, an inspection by a specialist remediation company.

3.7 Identification of Japanese knotweed

The RICS information paper published in 2012 included some basic information and photographs to aid the identification of Japanese knotweed. There is now a wealth of information available to assist learning and there is an expectation, not least by the courts, that residential valuers and surveyors should have a working knowledge of what Japanese knotweed commonly looks like during all seasons of the year (see Hardwicke (2019): Oh, that Knotweed! Sorry, didn't I mention it?). There has also been an immeasurable increase in online resources and readily accessible imagery for those seeking further information. Primary sources to consult include online search engine image databases and the websites of remediation companies.

Some smartphone apps can be useful for the identification of plants about which there is doubt, but they may not be definitive and verification may be required. Many specialist remediation companies provide online identification services with a fast turnaround.

Those seeking further information about Japanese knotweed, including its identification, should consult the current edition of the document published by the Property Care Association, *Japanese knotweed - Guidance for Professional Valuers and Surveyors*, which also contains information about alternative methods of remediation. It is anticipated that this publication will be periodically updated in light of the latest research.

3.8 Site records

When Japanese knotweed is encountered during an inspection, the valuer or surveyor is recommended to note its location on a site plan and record details such as:

- proximity to built structures, hard-landscaped areas, possible lines of drain runs and any damage or disruption noted
- the location, height and area of all stands of Japanese knotweed
- whether stands are on- or off-site, or crossing boundaries
- any evidence (verbal, documentary or visual) of current or previous management, and
- photographic records should be taken for later reference, even if they are not required for inclusion in reports.

The visible extent of an infestation may not accurately indicate the full magnitude of the area affected and concealed growth below ground level may be much more extensive. The original growth may have been cut back or partially treated. In some cases, there may have been attempts at concealment. Nevertheless, a description of the visible infestation is a useful record. Surveyors and valuers are familiar with estimating areas so, as an aid to consistency, it is suggested that the following descriptive scale is adopted:

Individual stands can be described in terms of their size:

- Very small: 1m^2 or less
- Small: 1m^2 to 4m^2 (e.g. 2m x 2m)
- Medium: 4m^2 to 25m^2 (e.g. 5m x 5m)
- Large: 25m^2 to 100m^2 (e.g. 10m x 10m)
- Extensive: greater than 100m^2

Using this method, one property might have ‘several small stands in scattered locations’ while at another there might be ‘an extensive infestation on adjoining land’. It is worth repeating that while the visible growth may be helpful for a preliminary assessment, it cannot be assumed to provide a definitive guide as to the full extent of an infestation or the likely cost of remediation, due to the potentially extensive but hidden rhizome.

It will also be appreciated that this is an objective scale with wide application, but the impact of any given infestation will be relative to its location and the specifics of the affected property. A stand of 3m x 3m would be described as a ‘medium-sized infestation’ on this scale, but in the small garden of a modest modern mid-terraced house it would have a serious adverse impact on the amenity space. By contrast, the same medium-sized infestation might have little impact on a large country estate.

4 A new assessment framework

4.1 Rationale

As with the RICS information paper published in 2012, a key objective of this standard is to enable valuers to report objectively and consistently to lenders when Japanese knotweed is encountered in the course of a mortgage valuation inspection. The House of Commons Science and Technology Committee report called for 'a much more nuanced and evidence-based' approach.

Meanwhile, the Defra report recommended that Japanese knotweed should be reframed as a mitigatable environmental issue, rather than solely as a property or social issue, calling for guidance that would 'provide clarity for lenders and enhance coherence in lending policy.'

However, again as with the 2012 RICS information paper, the new assessment framework is not only for use when valuers report to lenders, but is also intended to support the decision-making process across the range of inspections and surveys carried out by RICS members. In addition to utilising the framework for assessment, RICS members carrying out inspections for reasons other than lending purposes should report to and advise their clients in accordance with their terms and conditions of engagement and section 5.3 of this standard. Once established, this new framework can be flexibly utilised by stakeholders to suit their own business objectives.

The new assessment process enables the valuer or surveyor to carry out a structured assessment that leads to an objective categorisation of any given infestation. The assessment utilises a decision tree and the accompanying notes form an integral part of the assessment process. The notes clarify and define the terms used in the decision tree, assisting the valuer, surveyor or other user to place the property being inspected in the appropriate Management Category.

Research has demonstrated, and it is now generally accepted, that Japanese knotweed poses little or no risk of structural damage to robust buildings with substantial foundations such as dwellings, as opposed to less sturdy structures with shallow foundations, such as conservatories, garages or boundary walls. The so-called '7m rule' focused more on what has been demonstrated to be an overstated risk of Japanese knotweed to buildings, rather than its sometimes-serious impact on amenity.

There is also a recognition that the most appropriate objective when Japanese knotweed is encountered is to ensure an appropriate level of control rather than to automatically strive for eradication. In some circumstances, for example when construction is proposed, proper control may involve physical removal but in many domestic situations effective control can be achieved by the managed application of herbicides. As part of normalising expectations

in relation to Japanese knotweed, the assessment directs the valuer or surveyor to outcomes related to the management of Japanese knotweed rather than emphasising risk to buildings.

Important note: the Management Category assessment framework is intended to provide guidance but should not be regarded as definitive. The valuer or surveyor must use their professional judgment when faced with circumstances that do not fit neatly into the framework, and apply whichever Management Category they consider appropriate.

4.2 Assessing damage to structures

Substantial structures on sound foundations are unlikely to suffer structural damage due to Japanese knotweed. When Japanese knotweed is found in the vicinity of damage to a structure, the assessment process seeks to differentiate cases where damage has actually been caused by the growth, for example where expansion of the rhizome/root mass has pushed over a garden wall, from those where growth is simply present in areas that are already in a poor or defective condition, irrespective of the Japanese knotweed.

Like most plants, Japanese knotweed will follow the line of least resistance as it develops, preferring to go around obstacles rather than through them. As it seeks light and water, it may grow through pre-existing cracks in brickwork or concrete but its presence does not necessarily mean it has caused the cracking. The Fennell et al paper categorically dispels one oft-quoted Japanese knotweed myth by explaining that it is 'impossible for it to grow through intact concrete'.

An increasing appreciation of this important distinction between damage caused by Japanese knotweed and simply finding it present in areas of pre-existing damage should help to further reduce the perception of the risk it poses.

4.3 Assessing impact on amenity

By focusing on the distance of an infestation from buildings and boundaries, the previous assessment process did not address one important problem sometimes caused by Japanese knotweed, that of its impact on amenity space such as lawns, paths and driveways.

If amenity space is being affected by Japanese knotweed, there may be an impact on value even when it is remote from buildings, especially on smaller plots. Lenders will want to ensure that appropriate measures are taken to mitigate any impact on amenity that will affect the value and saleability of a property. The assessment process acknowledges this wider impact of Japanese knotweed rather than simply focusing on buildings.

On the other hand, if Japanese knotweed is present in established areas of planting on larger plots, or on larger estates, it may not have any impact on use and enjoyment. In such circumstances, while individual homeowners may wish to seek advice about future management, for lending purposes there may be no justification for requiring any remedial action.

4.4 Assessing Japanese knotweed on adjoining land

The problems associated with Japanese knotweed growing on adjoining land were highlighted in the House of Commons report. Valuers and surveyors must remain mindful of the difficulties that property owners may encounter when infestations are present on adjoining land.

The extent of any investigation in relation to adjoining land during a valuation or survey inspection will be determined by the type of inspection, by the particular constraints of the site itself (see section 3.6) and, importantly, by what is practical and reasonable in the circumstances. Within these limitations, the assessment process specifies 3m beyond a property boundary as the distance within which Japanese knotweed would be reported to a lender when seen by a mortgage valuer. 3m has been agreed as the most appropriate distance to adopt, based on the latest research.

If the mortgage valuer sees Japanese knotweed further than 3m beyond the property boundary, there is no automatic requirement to report it to the lender. In most circumstances, it will be sufficient for the mortgage valuer to make a file note of the observation.

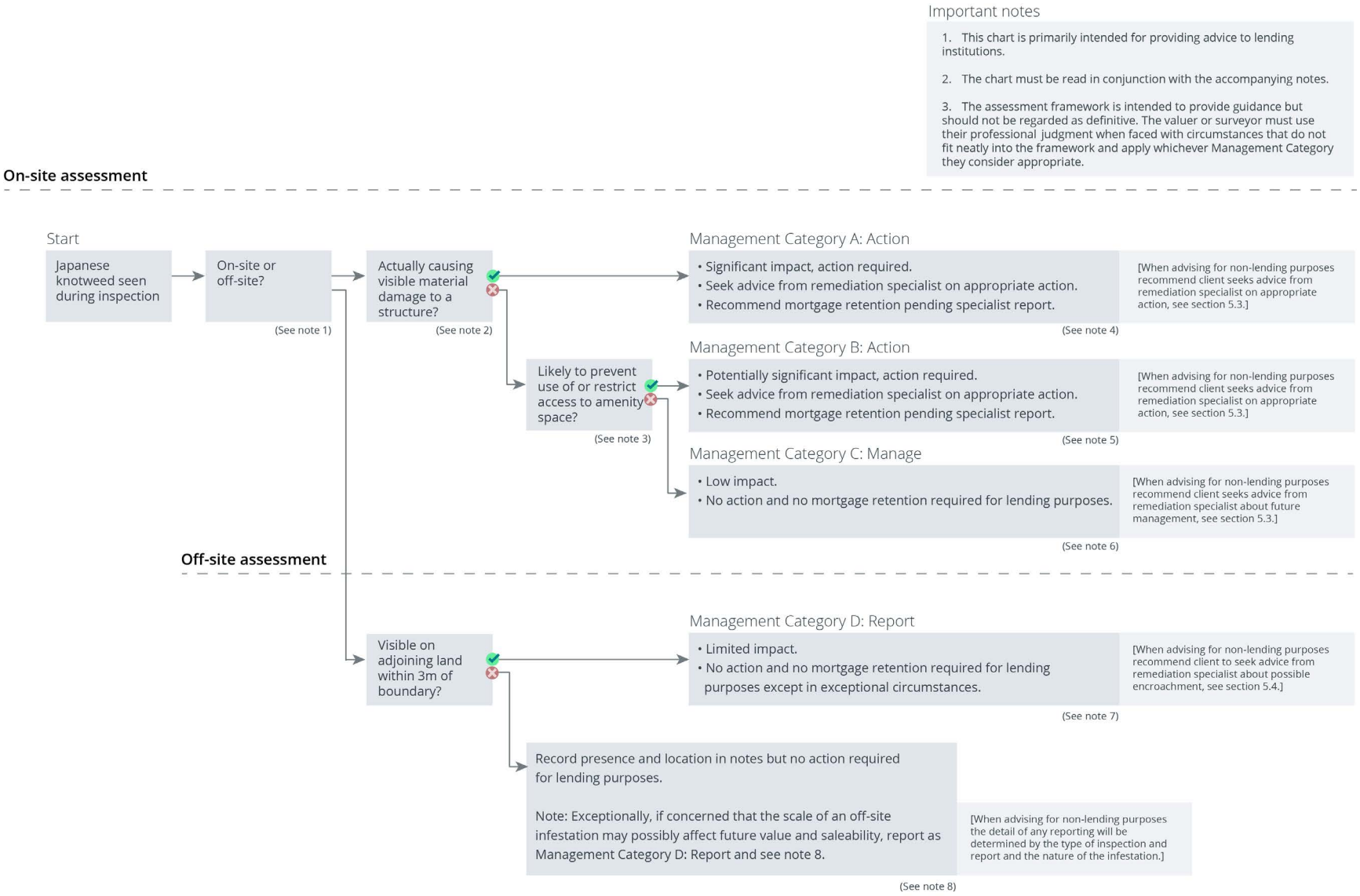
If a visible infestation located more than 3m from a boundary is particularly widespread, mature and showing no signs of effective management by the adjoining owner, there may be broader concerns about the possibility of a serious impact on the future value and saleability of the subject property.

Situations where this may typically arise are when the adjoining land is being rented from an absentee landlord, land with a non-residential use, land owned by a statutory authority or perhaps when the land is a derelict or unused site. In such exceptional circumstances, the valuer should advise the lender of the situation by assessing the infestation as Management Category D: Report, in accordance with accompanying note 7.

When reporting to clients who are not lenders, typically for pre-purchase surveys, valuers and surveyors will usually have more flexibility in reporting to complement the Management Category assessment. Whether or not to report infestations seen beyond 3m from the boundary, and the detail of reporting, will be determined by the type of inspection and report, as well as the nature of the infestation.

For the avoidance of doubt, it is worth stressing that the change in the assessment process to a 3m distance beyond a boundary does not imply any greater inspection requirement than under the previous 7m distance.

4.5 Japanese knotweed Management Category assessment



4.6 Accompanying notes

Note 1: On-site or off-site?

- For assessment purposes, any infestation along a boundary, within boundary hedging or affecting boundary walls should be assessed as 'on-site'.
- If Japanese knotweed is seen both on-site and off-site, the assessment should follow each element separately. Report as appropriate in respect of the off-site component and then adopt the highest on-site category outcome for the overall assessment.
- Remediation of any infestation found off-site is unlikely to be the responsibility of, or to be within the control of, the owner or occupier of the subject property.

Note 2: Actually causing visible material damage to a structure?

- Is Japanese knotweed causing visible material damage to any significant structure (a living space, conservatory or any ancillary permanent structure such as a garage, outbuilding or store) or associated structures such as paths, retaining walls, boundary walls and so on?
- As far as possible, determine whether the Japanese knotweed is the direct cause of actual damage (e.g. pushing over a boundary wall) or simply located where damage was already present (e.g. due to neglect, disrepair or deterioration for reasons other than Japanese knotweed).
- If Japanese knotweed is simply present in an area of pre-existing damage and not the direct cause of the damage, the assessment decision response should be 'no'.

Note 3: Likely to prevent use of or restrict access to amenity space?

- For the purposes of this standard, amenity space is regarded primarily as open areas intended for recreation, leisure or convenience within the boundaries of a property. Typically, lawns, patios, paths, driveways, hardstandings, etc. are included in this definition.
- Areas of garden planting may or may not be adversely affected by the presence of Japanese knotweed, depending on the size of the plot or the nature and character of the planting. If Japanese knotweed is present but not adversely affecting amenity space, there may be no significant impact on the property.
- Considering the number and sizes of individual stands of Japanese knotweed (as described in section 3.8), and their relation to the size of the plot, may assist in reaching a decision on this point.
- At properties with larger plots or, for example, on country estates, even relatively large areas of Japanese knotweed may not be regarded as unacceptable if the plant is not adversely affecting amenity space.
- The process of undertaking remediation work itself is likely to adversely affect the usability of that amenity space for the duration of the remediation process, for example while herbicidal treatment is carried out over a period of years, or during the course of excavation and reinstatement works.

Note 4: Management Category A: Action

- When visible damage has been caused, it is anticipated that most lenders will require, as a condition of a mortgage advance and subject to a retention, an inspection by a remediation specialist who is a member of a recognised trade body and the completion of any recommended works under a Japanese Knotweed Management Plan, with the benefit of an insurance-backed guarantee.
- The value of a property is likely to be affected when an infestation is assessed at this category. Valuers should take account of all relevant factors, including current market conditions, when considering the impact of an infestation on value at this category (see section 7).

Note 5: Management Category B: Action

- When Japanese knotweed is likely to prevent use of or restrict access to amenity space, it is anticipated that most lenders will require, as a condition of a mortgage advance and subject to a retention, an inspection by a remediation specialist who is a member of a recognised trade body and the completion of any recommended works under a Japanese Knotweed Management Plan, with the benefit of an insurance-backed guarantee.
- The value of a property may be affected when an infestation is assessed at this category. Valuers should take account of all relevant factors, including current market conditions, when considering the impact of an infestation on value at this category (see section 7).

Note 6: Management Category C: Manage

- An assessment at this level indicates that an infestation is:
  - not causing damage to significant structures within a site and
  - not likely to prevent use of or restrict access to amenity space.

It can therefore be considered as having a low impact on the property.

- Lenders routinely accept the normal risks posed by large trees and other plants. In the same way, there ought to be no requirement that borrowers should carry out remediation work as a condition of a mortgage advance at this category, so a mortgage retention ought not to be imposed.
- When reporting to clients other than lenders, the valuer or surveyor should recommend an inspection by a remediation specialist who is a member of a recognised trade body so the property owner can be advised about future management and control. This is particularly relevant if the growth is within 3m of a boundary (see section 5.3).
- There may be some impact on the value of a property when an infestation is at this level, but this will usually be modest and more likely to be a reflection of the cost of any remediation rather than any direct effect on the use of the property itself. Valuers should take account of all relevant factors, including current market conditions, when considering the impact of an infestation on value at this category (see section 7).

Note 7: Management Category D: Report

- An assessment at this level indicates that an infestation has not been seen within the subject site. The situation should be reported to the lender or client, but remedial action on land beyond the subject property is not within the control of the property owner.
- Proximity to the boundary means there is a possibility that there may be future spread from the off-site infestation onto the subject site. The likelihood of any possible spread will largely depend on the extent of the adjoining infestation. If an infestation on neighbouring land is limited, there may be relatively little prospect of spread but if the adjoining infestation is extensive, the probability of spread may be greater.
- In some circumstances, it may be appropriate for advice to be sought from a remediation specialist about the merit of taking defensive measures against possible future encroachment.
- In most cases, there is likely to be limited impact on value unless a severe adjoining infestation makes expensive defensive measures desirable (see section 7).
- In certain situations, there may possibly be implications for remediation and, rarely, perhaps even potential legal action. This could increase the impact on value, but only in exceptional circumstances would an infestation at this category be expected to be made the subject of a mortgage advance condition.
- Irrespective of the extent of an adjoining infestation, and if discussion or negotiation are not successful, there is no practical way for a property owner to impose remedial measures on an adjoining owner without taking legal action of some sort. Consequently, it is not appropriate for lenders to require remediation of an infestation on adjoining land as a condition of a mortgage advance because it is effectively beyond the control of the mortgagee/property owner to impose this.
- Even when an adjoining owner is willing to undertake remediation, it may not be possible to ensure that work is carried out by an approved contractor or with the benefit of an insurance- backed guarantee (typical lender requirements). Additionally, remediation undertaken by statutory bodies or local authorities may be carried out by their own contractors, which are unlikely to meet this requirement in any event.

Note 8: Record presence and location in notes but no action required for lending purposes

- No specific action is required when reporting for lending purposes if the visible infestation is off- site and more than 3m from the boundary, but the surveyor or valuer should make an appropriate record in the site notes.
- Recording the apparent number and sizes of individual stands of Japanese knotweed (as described in section 3.8) may assist with this process.
- Exceptionally, if there are concerns about infestation further than 3m from the boundary possibly affecting future value and saleability, assess as Management Category D: Report, and follow note 7 (see section 4.4).

- Reporting or advice to clients for purposes other than lending will depend on the specific instructions relating to the inspection and, if appropriate, the survey level (see section 5.4).

5 Reporting and recommendations

5.1 Reporting to lenders

The primary objective of the Management Category assessment process is to provide consistency across the residential property market so that all stakeholders can understand the significance of Japanese knotweed at or near any given property. Whatever the circumstances found on-site, the actions needed to achieve a satisfactory route through to mortgage finance should be equally apparent to valuers and surveyors, vendors and purchasers, lenders and remediation specialists.

When Japanese knotweed is identified, the Management Category assessment decision tree (see section 4.5) should be used to categorise the infestation at the relevant Management Category, which can then be reported to the lender in the usual way.

The notes beneath each of the Management Category assessments, supplemented by the accompanying notes in section 4.6, are largely self-explanatory and provide recommendations that most lenders will hopefully be willing to adopt in the furtherance of greater consistency in lending policies across the market.

The assessment process provides guidance in the form of generic advice to lenders, but it is acknowledged that individual lenders will ultimately determine their own policy responses to the varying assessment categories. Some lenders, for example, do not make retentions from mortgage advances. Valuers will be aware that when undertaking valuations for lending purposes, it is the lender that is the client and the client's instructions take precedence over RICS guidance.

Some lenders do not disclose the content of mortgage valuation reports to applicants. Providing the valuer has complied with the lender client's instructions, notwithstanding the established principle of 'duty of care' to applicants when undertaking mortgage valuation inspections, if a lender chooses not to disclose to an applicant the contents of a valuation report mentioning the presence of Japanese knotweed, the valuer has no additional implied liability to the applicant. To clarify, firstly a mortgage applicant cannot rely on the offer of a mortgage as an indication that there are no significant defects at a property, and secondly a mortgage applicant can always seek independent professional advice on the condition of the property being purchased, and should be recommended to do so by their legal adviser, irrespective of any mortgage valuation inspection.

The valuation of properties affected by Japanese knotweed and the factors affecting value are covered specifically in section 7.

Note: It will be seen that the recommendations for management categories A and B are virtually identical, both recommending 'action' and anticipating mortgage retentions pending advice from a remediation specialist. The two categories have been separated to differentiate instances where Japanese knotweed has visibly caused material damage to a structure from those where it is adversely impacting on amenity. It is hoped that in time this separation will improve understanding of where the main issues arise and potentially facilitate refinements in lending policies as they respond to the new assessment process.

5.2 Reporting for other purposes

When Japanese knotweed is identified during an inspection being undertaken for purposes other than lending, the decision tree should be used to categorise the infestation at the relevant Management Category, which can then be reported to the client.

The depth and detail of reporting by RICS members acting for clients other than lenders will be determined by the agreed terms and conditions of engagement. Using the Management Category assessment will assist in positioning advice to the client. Reports at level three would be expected to be more detailed than those at levels one and two.

Section 7 of this standard deals with the valuation of properties affected by Japanese knotweed, but it also includes general observations about the impact of Japanese knotweed, which will assist those providing advice to clients even where a valuation is not required.

5.3 Properties affected by Japanese knotweed

Where Japanese knotweed is found at a property, the surveyor has personal prior knowledge or no Japanese knotweed has been seen but it emerges through questioning (or from some other source, such as solicitor's enquiries before contract) that there is previous knowledge of its presence, one of two responses are appropriate:

- Where there is no satisfactory evidence to show that a properly planned Japanese knotweed programme is currently in hand or has been properly completed, further investigations by a recognised contractor should be recommended.
- Where there is satisfactory evidence to show that Japanese knotweed is currently or has been subject to a recognised remediation strategy by a recognised contractor, further investigation will not be required and a recommendation for the client or legal adviser to obtain and inspect the documentation should be included in the report.

When further investigation is required, it should be carried out by an accredited member of a recognised trade body. To date there are two associations that provide this assurance, the Property Care Association (PCA) and the Invasive Non-Native Specialists Association (INNSA). The report and, if appropriate, a JKMP should be provided following the specialist inspection. Details of what the JKMP can be expected to include can be found in section 6.1 of this standard.

In cases where a residential practitioner is advised that remedial treatment is in hand or has been completed, it will be a matter for the individual's professional judgement to decide what constitutes 'satisfactory evidence' but most professional JKMPs provide a warranty or guarantee. This provides assurance to the client that for a specified period, with a minimum of five years after completion of the remediation contract, if any growth or re-growth occurs within the treatment zone the contractor will return and conduct further treatments as required. In some cases, there may also be a separate guarantee insurance policy, so that the guarantee remains valid even if the original contractor ceases to trade. This guarantee plus the insurance policy is known as an 'insurance-backed guarantee'. Confirmation of an appropriate JKMP or a guarantee would normally be considered satisfactory evidence.

5.4 Neighbouring properties

Where Japanese knotweed is confined to the grounds of a single property, its management will normally be a straightforward process involving only two parties: the property owner and the contractor. However, where Japanese knotweed straddles the boundaries of more than one property, the solution will not be so simple.

The most effective solution will be the treatment of the Japanese knotweed within the property boundary and any part connected to that infestation, whether outside the boundary or not. A JKMP should advise of any neighbouring party's agreements, whether voluntary or legally imposed, and any additional contractual issues. These will be required to ensure a successful treatment programme.

In some residential areas, property ownership can be complex and transient, and establishing a joint remediation strategy in this situation will be challenging. In these cases, providing root barriers along the boundary may appear an attractive option to lenders who require a straightforward, time-limited solution. However, installing a root barrier may not be a viable or effective treatment for many domestic properties, and alternative solutions may be required:

- Deep excavations to depths required may be expensive, disruptive and could be legally challenging, as the owner's legal advisers consider matters relating to boundaries, party walls and general property rights.
- Guarantees issued following root barrier installation will be dependent on a supporting monitoring/herbicide treatment programme (see the Property Care Association guidance note Root Barrier and Japanese Knotweed Remediation).

When an infestation is not present at a property, but has been seen on neighbouring or nearby land, and the RICS member is acting for reasons other than lending purposes, it will be appropriate to report and advise on infestations seen beyond the distance of 3m from the boundary used by the Management Category assessment. This will depend on the specific circumstances, as well as the level of service being provided, but the RICS member should report the matter in a balanced way, which puts any risks into context.

Judgments in recent court cases have confirmed that Japanese knotweed is an actionable nuisance, and neighbouring owners have been required to implement control and management measures to prevent spread of Japanese knotweed from their land onto that of neighbours (see *Network Rail Infrastructure Limited v Stephen Williams and Robin Waistell* [2018] EWCA Civ 1514 and Hardwicke (2018), Japanese knotweed nuisance in the light of Waistell and Smith v Line).

It is also worth noting that in 2014 a guidance note produced by the Home Office described how, under Section 57 of the *Anti-Social Behaviour, Crime and Policing Act* 2014, 'a failure to act' could be applied to Japanese knotweed (and other invasive species such as Himalayan balsam and giant hogweed), leading to the issue of Community Protection Notices by the police and/or local authorities. This has been successfully used by some local authorities (for example by Bristol City Council in 2018, when a property owner was fined £18,000 for failing to control the spread of Japanese knotweed) but this remedy is not directly available to private homeowners.

6 The management of Japanese knotweed

6.1 The Japanese Knotweed Management Plan (JKMP)

When Japanese knotweed has been identified at a property, further investigation should be carried out by an accredited member of a recognised trade body (currently the PCA and INNSA). A report should be provided and, depending on the findings, a JKMP should be prepared. The JKMP can provide the necessary reassurance to all interested parties that a Japanese knotweed problem is being properly managed.

The options for remediating an infestation of Japanese knotweed will depend on the commercial choices and preference of the contractor, but the JKMP should reflect current legislation and the latest guidelines and practices, as set out in the most up-to-date Codes of Practice (e.g. PCA or INNSA).

The JKMP should include the following features:

- a description of the property with an accurate record of the Japanese knotweed infestation
- a scaled plan with dimensions; supporting photographs are also useful
- full details of the contracting organisation and a description of the methods to be used to control and manage or eradicate the Japanese knotweed
- a treatment schedule that is updated as treatments are carried out
- on completion, there should be a certificate confirming that the plan (including a 2-year 'no growth' period) is complete and that the Japanese knotweed at the property has been remediated. A recommendation for long-term monitoring may be made, especially with respect to herbicide treatment plans.

Valuers and surveyors should take account of this range of information when deciding whether the evidence of previous treatment programmes is adequate. Other features of the JKMP provide additional reassurance to lenders:

- The current owner may have to pay all costs associated with the management plan up front, so that the treatment programme can be completed without relying on financial support from subsequent owners.
- The management plan should be transferable to any subsequent owners.
- The management plan should cover the whole of the property and not just those affected parts identified by the original valuer or surveyor.

- Inclusion of an appropriate guarantee from the contractor for a minimum of five years (following completion of the remediation contract) and third-party insurance cover that will ensure the guarantee remains valid in the event of insolvency of the original contractor.

Important note: Although it is unlikely that Japanese knotweed will return following the successful delivery of a professional treatment plan, the biology and nature of the plant, and site variations, means that in some circumstances regrowth can occur. The JKMP guarantee should therefore include details of how to proceed if regrowth does become apparent.

6.2 Remediation options

Once it is established, eradicating Japanese knotweed can be challenging. Usually, a more economical objective is to achieve effective control. Valuers and surveyors should be aware of the range of approaches that can be taken by professional contractors, but it is beyond the scope of this standard to do more than briefly outline alternative remediation options. For detailed information, including typical costs and the pros and cons of the alternatives, the complementary PCA publication Japanese knotweed: Guidance for Professional Valuers and Surveyors should be consulted.

For residential properties, there are usually only two remediation options available, either chemical control using herbicides or physical removal by excavation, but the details of the necessary treatment will vary depending on the circumstances on site. In practice, Japanese Knotweed Management Plans may include a combination of both approaches, and the relative costs of the options available will be only one factor to take into account when deciding the most appropriate method of remediation.

Chemical control is the application of herbicide to Japanese knotweed plants over a period of several growing seasons. Experience shows this approach is both effective and economical, but it does require a minimum of four years of treatment and monitoring before a completion certificate can be issued.

Excavation, followed either by meticulous on-site separation and removal of the rhizome from the soil, or wholesale removal of contaminated soil to a licensed waste-management facility, can involve significant disruption and cost due to large volumes of soil. It should be appreciated that excavation will not only involve the visible Japanese knotweed area but will typically include an area of 2m to 3m beyond the nearest knotweed visible at the edge of the stand. For example, a 2m x 2m stand of knotweed might require an area of 6m x 6m to be excavated, typically down to a depth of 1m or 2m, a total volume of as much as 72m^3. Even when volumes are minimised by careful site monitoring, excavation of even a relatively small Japanese knotweed infestation can cost several thousands of pounds in waste charges alone for excavation, transport, and landfill taxes.

Some alternative remediation methods, such as on-site burial or stockpiling/bunding (see PCA *Code of Practice for the Management of Japanese Knotweed*, Appendix A), may be appropriate for large sites or developments and can significantly reduce waste disposal

costs. It is unlikely, however, that such methods, nor biological control should such an option become available, would be suitable for standard residential properties.

The residential practitioner encountering Japanese knotweed during an inspection, may need to make a preliminary assessment of the likely cost of remediation before having the benefit of a formal specialist report and quotation. As with any other property defect, previous experience will often be a helpful guide, but the PCA publication *Japanese knotweed: Guidance for Professional Valuers and Surveyors* includes indicative costings for some typical situations, which may also be of assistance.

7 The effect of Japanese knotweed on residential value

7.1 The purchaser with 'full knowledge'

The challenge for the professional valuer is to establish the extent to which a potential purchaser, in full knowledge that a property is, or perhaps was previously, affected by Japanese knotweed will seek to reduce their bid for the property compared with what they would have bid if the property had not been affected. The expression 'full knowledge' in this context includes a proper understanding of all implications that flow from the presence of Japanese knotweed. This reflects the Red Book Global Standards definition of *market value*, which requires the assumption that 'the parties had each acted knowledgeably, prudently and without compulsion'.

A proportion of the prospective purchasers who discover that a property is, or even has previously been, affected by Japanese knotweed may withdraw from the purchase, resulting in a reduced level of demand. Others may seek a reduction in the purchase price, the amount of which will be influenced by a number of factors. Significantly, some of these factors are not considerations when dealing with 'normal' building defects and valuing a residential property when Japanese knotweed is involved needs to properly reflect all of these influences.

Unlike normal building defects, Japanese knotweed poses a number of particular problems for the homeowner and the current public perception can mean that when properties are affected by Japanese knotweed the impact in the marketplace can be out of all proportion to the cost of remediation. When instructed to value a property affected in some way by Japanese knotweed, therefore, the valuer must not take a simplistic approach if the assessment is to accurately reflect the impact of Japanese knotweed in the market. The cost of remediation is clearly one important factor, but it is inappropriate to reflect only the cost of remediation in the valuation.

An alternative means of assessing the impact of Japanese knotweed on the value of a property might be to apply a 'standard percentage reduction in value'. However, without a justifiable evidence base, such a crude approach should not be followed because it does not adequately reflect the differing effects of the many variables that may need to be considered in each individual case.

7.2 Fully reflect all potential implications

When a valuer is considering the degree to which Japanese knotweed has reduced the value of a property, whether advising a lender, a prospective purchaser or as an expert advising a party to litigation, there are a number of factors to take into account. If each of these elements is considered in turn and their cumulative impacts are applied to the open market value of the defect-free property, the result will be a reasoned and more objective indication of possible diminution in value than only using the cost of remediation or applying the crude percentage reduction referred to above.

Five factors are listed in a 2017 paper titled *Assessing diminution in value of residential properties affected by Japanese knotweed*. The world of Japanese knotweed has moved on since 2017 but the principles outlined in the paper are still relevant. The five factors are:

- impact in the market prior to remediation
- restrictions on use of the property
- impact during remediation
- impact of infestation present on adjoining land
- post-remediation impact on future saleability.

Potential purchasers of more desirable and exclusive properties are less likely to be deterred by an infestation than those seeking to purchase more standard properties where many similar alternative properties without an infestation may be available in the market. The proportional effect on the value will, therefore, differ, depending on the type and quality of the property.

A prospective purchaser who fully understands the problems that Japanese knotweed can cause will want to consider the remediation options and their implications for occupation. This includes the extent of any disruption caused by the remediation programme and any restrictions that the remediation regime might impose on use of the garden or other parts of the property. If the infestation is restricted to a very limited area there may be little or no practical impact on the use of a garden, for example, but in other cases a significant part of the garden may be unusable. Additionally, herbicide treatment will not be suitable if construction works might be anticipated.

A particularly problematic issue is that of infestations on adjoining land, over which the owner of a purchased property is likely to have no control. The prospective purchaser will want to consider whether an adjoining infestation is extensive or limited; in close proximity or distant; whether there is a serious or limited risk that the adjoining infestation will spread onto (or back onto) the purchased property; and the likelihood of the adjoining owner(s) undertaking effective remedial action on their own land.

A prospective purchaser with full knowledge will also be aware that even after remediation works, when the time comes to sell the property being purchased, the presence of Japanese knotweed must be declared on the Law Society Property Information Form TA6. Current experience indicates that due to the stigma that Japanese knotweed often generates in

the public perception there may also be a residual impact at the time of a resale, even when there is an effective Japanese Knotweed Management Plan in place. This should be significantly less than at the time of purchase and the impact on value will tend to decrease over time, but a valuation should take into account the effect this stigma may have in reducing demand and impacting on the price potentially achievable. The degree of impact will again be influenced by the type of property, the type of remediation undertaken and the period since remedial work was completed.

7.3 Consider the wider market

Totalling the impact of each of the five individual factors and adding that to the cost of the remedial works will give an indication of the amount by which a prospective purchaser with full knowledge might wish to reduce a purchase bid for the property, compared with its infestation-free value. This theoretical figure would reflect not only the cost of remediation but also all of the implications for occupation and eventual resaleability, together with an assessment of the risks associated with any infestation on adjoining land, over which there is likely to be no control.

Having reached this point, the valuer should then take a step back and consider this provisional assessment in the light of the wider market. Is this figure a realistic assessment of what the prospective purchaser with full knowledge would actually be able to pay or are there other factors in the market that should also be reflected? Is it, for example, a booming market with a shortage of properties, which might reduce the negotiating power of the purchaser, or is the market flat and providing the purchaser with strength in negotiation?

The valuer should also consider whether, and at what level, a vendor might decide to withdraw an affected property from the market, undertake and pay for the remediation themselves and then re- market the property, rather than settle at a disagreeably reduced selling price. Assessing the implications of this option requires assessing from the vendor's perspective many of the same implications as those facing a prospective purchaser, such as disruption during remediation, any infestation on adjoining land and the post-remediation impact on the revised asking price. Just as for a purchaser, a vendor assessment cannot only reflect the basic cost of remediation. Having undertaken this sense check, the valuer can then decide whether or not to adjust the theoretical reduced purchaser bid and finalise a valuation that fully reflects the presence of Japanese knotweed in the market at that time.

A significant issue usually facing valuers considering the effect Japanese knotweed has had on the value of a property is the dearth of comparable evidence of similarly affected properties in the locality. Supporting notes to a valuation which record that the points summarised in section 7.2 above have been considered in the context of the wider market at the time, can provide adequate support for a professional opinion of value. If suitably undertaken, in the absence of direct comparables, this would be one way to meet the standard of reasonableness.

In his judgment on the case *Ryb v Conways Chartered Surveyors and Others* [2019] (Unreported), HHJ Luba QC described the difference between the market value of a property without Japanese knotweed and that same property where Japanese knotweed is present, as being 'the sum representing the discount on the otherwise market value which the buyer could reasonably have sought and the vendor ought reasonably to have agreed' (see Hardwicke (2019): *Oh, that Knotweed! Sorry, didn't I mention it?).* It is this figure that valuers should be seeking to identify.

Appendix A: Further sources of information

- Environment Agency: Managing Japanese knotweed on development sites: the Knotweed Code of Practice (2006, updated 2013) [withdrawn in 2016 because the Environment Agency no longer provides best practice guidance, but containing useful information]
- GB non-native species secretariat
- Invasive Non-native Specialists Association Code of Practice: *Managing Japanese Knotweed*
- National Biodiversity Network. This site also has a free searchable atlas
- Natural Resources Wales: Japanese knotweed: Controlling it on your land
- Invasive Species Northern Ireland
- Property Care Association: Japanese knotweed: Guidance for Professional Valuers and Surveyors. This document has been published specifically to complement the RICS standard. It provides much helpful additional detail on many aspects of Japanese knotweed which are beyond the scope of this guidance.
- The following are also available as downloads from the PCA technical library:
  - *Code of Practice for the Management of Japanese Knotweed*
  - *Japanese Knotweed – A guide to the problems caused and how to deal with them* (leaflet)
  - *Manual: Practical Management of Invasive Non-Native Weeds in Britain and Ireland*
  - *Root Barrier and Japanese Knotweed Remediation*
  - *Safe and Effective Excavation and Burial*
  - *Summary of Legislation impacting Japanese Knotweed*
  - *Verification Reports for Excavation and Soil Removal*
  - *List of Invasive Plant Species*
- Republic of Ireland: National Biodiversity Data Centre
- Royal Horticultural Society
- Savills Research Spotlight, Japanese knotweed and prime property, UK Residential – July 2021
- Scotland: There is no current advice specifically for homeowners. There is general advice for the public on invasive non-native species on the NatureScot website
- Natural Resources Wales

Appendix B: References

- Fennell, M, Wade, M and Bacon, KL, Japanese knotweed (Fallopia japonica): An analysis of capacity to cause structural damage (compared to other plants) and typical rhizome extension, PeerJ, 2018(7), pp. 1–23.
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