Haweswater Aqueduct Resilience Programme - Proposed Bowland Section

Volume 6

Proposed Ribble Crossing

Appendix 6.5: Arboricultural Impact Assessment

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Jacobs

Haweswater Aqueduct Resilience Programme - Proposed Bowland Section

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Contents

Executive summary

The following points summarise the recommendations and conclusions contained within this report in relation to anticipated tree impacts:

1. Potential tree loss is indicated in Figure 6.6: Preliminary Trees at Risk Plan (PTRP) and reported using traffic light colour symbology of Red Amber Green (RAG). Refer to Section 1.6 for a summary of the RAG assessment methodology.

2. The arboricultural survey of the Proposed Ribble Crossing encompassed 206 individual trees, 80 tree groups and 16 hedgerows, comprising in total 302 features.

3. The RAG assessment is a precautionary approach to reporting impacts for 'Red' or 'Amber' features at planning submission stage. Around 80 % of total tree loss comprises of trees RAG assessed as 'Amber' i.e. features located outside the indicative proposed core working area but within the planning application boundary. It is anticipated that further consideration would be given to at risk and notable features as the design process progresses and engineering constraints are further defined e.g. provision of a full topographical survey for existing vegetation. Specific opportunities for further retention are summarised in Section 6.3.

4. Overall, the Proposed Ribble Crossing would give rise to a limited arboricultural impact in terms of both qualitative and quantitative tree loss. Out of a total 302 tree features surveyed, 12 features (approximately 5 %) would be subject to varying extents of removal or at risk of complete removal. There are no notable trees within the 12 features identified as being subject to varying degrees of removal or loss. Only several Red status trees out of the 12 affected features are of moderate quality; two comprise B grade features as discussed in Section 5.2.1.

5. While a relatively large proportion of total tree features (approximately 69 %) , including two veteran trees and three A grade features, are potentially encroached upon, they would be retainable subject to pre-construction tree protection measures. Notable tree encroachment is detailed in Section 5.2.2.

6. Retention of encroached features would be subject to incorporation of pre-construction protection measures as specified in a Site Specific Arboricultural Method Statement (SS-AMS) and shown on a Tree Protection Plan (TPP). Further mitigation measures designed to protect retained features can be provided by documents listed in Table 1.5 of Section 6.7.

1. Introduction

1.1 Programme Background

1) United Utilities is submitting detailed planning applications for the Haweswater Aqueduct Resilience Programme (HARP). As further described in Environmental Statement (ES) Volume 2 Chapter 3: Design Evolution and Development Description, the overall 'Proposed Programme of Works' requires a detailed planning application and accompanying ES for five separate developments as listed below:

- Proposed Docker Section
- Proposed Swarther Section
- Proposed Bowland Section
- Proposed Marl Hill Section
- Proposed Haslingden and Walmersley Section.

1.2 Section Description

2) This Arboricultural Impact Assessment (AIA) has been developed for the Proposed Ribble Crossing, which forms one of the Haulage Route Options proposed for the Proposed Bowland Section.

3) The Proposed Ribble Crossing would principally comprise a 7.7 m wide temporary road approximately 1.5 km long which would also incorporate a temporary bridge crossing of the River Ribble. The proposed road is a two lane carriageway which would be used by HGVs and all other construction traffic for the construction of the Bowland tunnels[1].

4) Hereafter the main working area associated with the Proposed Ribble Crossing will be referred to as the proposed core working area within this AIA. The combined design elements of the proposed core working area are specified within Appendix A and shown on the figures below within Volume 3 of the ES:

- Figure 6.5: Tree Constraints and Assessment Plan (TCAP)
- Figure 6.6: Preliminary Trees at Risk Plan (PTRP).

5) The Proposed Ribble Crossing is located entirely within the local planning authority (LPA) area of Ribble Valley Borough Council.

1.3 Design Stage

1.4 Deliverable Scope

6) Jacobs UK Ltd (Jacobs) was instructed by United Utilities to undertake a tree survey and provide an AIA for the Proposed Ribble Crossing. Reference to trees in this AIA should be taken to include individual trees, woodland, tree groups and hedgerows where appropriate. The AIA has been produced with reference to 'BS 5837:2012- Trees in relation to design, demolition and construction – Recommendations'[2]. Scope requirements were to:

- Survey and record information about trees that are potentially impacted by the Proposed Ribble Crossing
- Assess the potential impact on trees including tree removals, and to recommend where tree protection measures may be required for retained trees
- Provide an AIA report with all relevant information recorded and indicated on corresponding figures.

[1] The Proposed Ribble Crossing is one of two solutions for the movement of construction-related vehicles serving both the Proposed Marl Hill Section and the Newton-in-Bowland compound of the Proposed Bowland Section. See Vol 2 Ch. 3 and Vol. 5 Ch. 3 for further explanation of the construction vehicle access strategy.

[2] British Standards Institute (2012). *British Standard 5837: 2012 Trees in relation to design, demolition and construction – Recommendations.* London: BSI Ltd.

1.5 Survey Scope and Methodology

7) Baseline survey visits to the Proposed Ribble Crossing were undertaken by arboricultural surveyors between 11 and 18 February 2021. The tree survey methodology was conducted in accordance with BS 5837:2012[3]. Full details of survey scope and methodology are detailed in Sections B.1 and B.2 of Appendix B.

8) The survey and assessment contained in this report considers potential impacts on trees located within and up to 15 m outside the planning application boundary. The planning application boundary is referenced in Appendix A. Hereafter the spatial scope of the survey is referred to as the 'assessment area'. The assessment area excludes all trees with a stem diameter of below 75 mm (measured at 1.5 m above ground level)

1.6 Impact Assessment Methodology

9) An interim assessment of potential impacts was made by overlaying the existing tree's Root Protection Area (RPA) or canopy constraints with the indicative proposed core working area and planning application boundary. Potential impacts on trees were also informed by communications with the United Utilities design team on 22 February 2021. Full details of the impact assessment methodology are detailed in Section B.4 of Appendix B.

10) Potential tree impacts are reported using traffic light colour symbology of RAG based on parameters summarised below:

- Red features are trees subject to varying extents of removal based upon their location within the proposed core working area
- Amber features are trees considered to be a 'Removal Risk Aiming to Retain' (RRAtR) and based on the proposed core working area or planning application boundary encroaching upon existing tree constraints. For the purposes of this AIA, it is assumed that RRAtR trees would be removed on a reasonable worst-case scenario basis. This is a precautionary approach because location-specific protection measures are not available for RRAtR trees at this stage. It is anticipated that further consideration will be given to RRAtR trees as the design process progresses and engineering constraints become further defined
- Green features are considered to be 'Retained with Protection Measures' (RwPM) due to either location-specific protection measures being available at planning submission stage or tree constraints being located on the margins of the planning application boundary. Encroached RwPM features, considered likely to require protection measures, are identified by an 'E' within the 'AIA' column of the Tree Survey Schedule (Appendix F). Non-encroached RwPM features, less likely to require protection measures, are identified by an 'N' within the 'AIA' column of the Tree Survey Schedule.

11) The extent of potential tree loss, trees at risk and tree retention within the planning application boundary are indicatively shown on Figure 6.6: PTRP. The spatial extent of tree removal, trees at risk and tree retention are based upon the RAG status of a feature and proximity to the planning application boundary.

12) The extent of potential loss to a roadside hedgerow (H11), as shown on the PTRP, is informed by a requirement for a 30 m clearance buffer either side of the indicative route alignment. The extent of potential loss to three group features (G34, G38, G48) is informed by a requirement for a 10 m clearance buffer either side of the indicative route alignment

1.7 Embedded Mitigation and Good Practice

13) Embedded mitigation is inherent to the design. Good practice measures are standard industry methods and approaches used to manage commonly occurring environmental effects. The assessments

[3] British Standards Institute (2012). *op. cit.*

presented in Section 4 to 6 of this report are made taking into account embedded mitigation and the implementation of good practice measures (where these can be identified).

1.7.1 Embedded Mitigation

14) ES Chapter 3: Design Evolution and Development Description explains the evolution of the design with input from the environmental team, including mitigation workshops and the use of GIS based constraints data.

1.7.2 Good Practice Measures

15) Good practice measures are contained in Volume 4 Appendix 3.2: Construction Code of Practice (CCoP). The CCoP presents a suite of mitigation measures that would be adopted during construction. The key measures of relevance to the AIA are listed below:

- Trees to be retained should be adequately protected via a combination of tree protection measures as specified in a SS-AMS. Examples of potential mitigation measures are discussed in Sections 5.2.1 and 5.2.2 of this AIA
- In conjunction with the SS-AMS, a TPP should also be produced to provide schematic details of where protective measures (i.e. fencing or ground protection) will be installed
- The specification of stout 'fit for purpose' tree protection fencing would be agreed with the LPA and should preferably be prescribed as per Section 6.2 of BS 5837:2012 (BSI, 2012). This would provide an adequate RPA/Construction Exclusion Zone (CEZ) that would allow its successful retention during and after the proposed works
- Any soft ground within RPA areas should be suitably protected as described in Section 6.4.2.3 of BS 5837:2012 (BSI, 2012). Areas of retained hard surfacing could act as sufficient protection for RPAs beneath and require no additional level of exclusion
- In the event any tree canopy pruning is required to facilitate the works these are to be undertaken by qualified and competent staff working to BS3998:2010. The LPA would be notified of any tree pruning required to enable the works to proceed prior to the pruning occurring
- Consideration should be given to a competent project arboriculturist or ACoW to oversee works relating to the protection of trees. Further details on this role are provided in Section 6.8 of this AIA.

1.8 Survey Limitations

16) Limitations to the tree survey are identified as follows:

- Plotting the location of trees was based on surveyor use of a GPS-enabled survey tablet and open-source aerial imagery with no topographical information relating to tree positions available at the time of surveys. GPS locations are considered accurate to within 5 m therefore all tree positions must be assumed to be indicative for planning purposes only. Later stage verification of all tree feature locations will be required once a full topographical survey becomes available
- The assessment area is defined by the extent of the planning application boundary referenced in Appendix A and indicated on Figure 6.5: TCAP
- Due to restricted safe access, the stem diameter of some trees has been estimated where appropriate. This is identified by a '#' suffix within the stem diameter at breast height (DBH) column of the Tree Survey Schedule
- Indicative RPAs have been calculated for tree groups, hedgerows and woodland based on the maximum stem diameter taken for each collective feature. Limited individual tree data for trees within collective features was recorded e.g. stem count
- Additional arboricultural site visits for more detailed tree data recording may be required at a later stage to inform detailed design including:

- The determination of accurate tree clearance limits where tree impacts are expected (including impacts to trees on the external margins of the planning application boundary)
- The formation of a tree protection strategy (i.e. a SS-AMS)

- A BS5837:2012 tree survey does not include a specific veteran/ancient tree assessment methodology (see Section B.5 of Appendix B for details). Prospective veteran or ancient trees are reported as potential veteran or ancient trees within the Tree Survey Schedule and identified by a 'V' within the Age Class column. For the purposes of this assessment, all potential veteran and ancient trees are considered to be verified.

1.9 Assessment Limitations

17) Limitations to the assessment are identified as follows:

- Indicative tree impacts are informed by the overlay of tree constraints information relative to the proposed core working area and planning application boundary. Tree impacts are informed by reference sources defined in Appendix A and assessment methodology detailed in Section B.4 of Appendix B. In summary these sources include:
  - Tree survey information, the proposed core working area and the planning application boundary as presented as geo-spatial layers Jacobs' internal GIS platform
  - Schematic design plans
  - Communications with the United Utilities design team on 22 February 2021 with regards to potential location-specific mitigation to accommodate tree retention
- The Tree Survey Schedule does not report canopy or branch height dimensions of tree survey features however this data can be provided on request. This information is considered more appropriate to a later design stage at a greater level of detail i.e. to determine specific associated pruning requirements. The PTRP should be provided as a reference document for any associated pruning works specification in line with BS3998:2010 'Tree Work – Recommendations'[4]
- The indicative rooting constraints of potential veteran/ancient trees are currently calculated in accordance with BS5837:2012 (which caps RPAs at a maximum radius of 15 m). Further protection measures should be considered in line with Governmental Standing Advice for ancient and veteran trees in England[5] hereafter referred to as Standing Advice. Standing Advice recommends a minimum 15 m protective buffer zone from Ancient Woodland and potentially greater protective buffer zones for individual ancient and veteran trees (see Section B.5 of Appendix B for further details).

1.10 Assumptions

18) Assumptions for this assessment comprised the following:

- Tree surveys focus on trees with a stem diameter of over 75 mm. It is understood that the assessment of trees lost below this size threshold and other low-level vegetation are captured by existing Phase 1 ecology survey data and addressed within the Environmental Masterplan of Chapter 20: Environmental Mitigation
- This assessment is based upon a fixed design however there is potential for additional construction details to become available at detailed design stage. Examples of additional elements / construction detail are:
  - Working widths for task-specific construction/demolition activities located within the planning application boundary but outwith the proposed core working area e.g. earthworks

[4] British Standards Institute (2010). *British Standard 3998:2010 : 2012 Tree work – Recommendations. London: BSI Ltd.*
[5] Natural England and Forestry Commission (2018). *Guidance - Ancient woodland, ancient trees and veteran trees: protecting them from development.* [online] Available here: https://www.gov.uk/guidance/ancient-woodland-and-veteran-trees-protection-surveys-licences [Accessed on 14/07/20]

- The diversion/removal/reinstatement of underground or overground utility services including outfalls
- The alignment and construction detail of the bridge crossing/new access tracks or diverted public footpaths
- Finalised location of Highway Drainage routes and discharge points within the planning application boundary
- Finalised compound layouts within the indicative Construction Laydown Areas including storage areas, welfare and generator locations, Construction Exclusion Zones (CEZ) and plant access routes
- Notification of project commitments e.g. confirmed working width reductions

- It is assumed that the above listed design detail would be positioned outside areas of retained tree features shown on the PTRP with no further assessment required.

2. Regulatory and Planning Framework for Trees

2.1 Overview

19) BS5837:2012 provides a framework which sets out how trees should be considered in the context of development. LPAs in the UK have a statutory duty to consider the protection of trees as material considerations when considering planning applications. The Proposed Ribble Crossing is fully located within the administrative boundary of Ribble Valley Borough Council as shown on Figure 6.5: TCAP.

20) The methodology and scope of this AIA (as described in Appendix B) has been developed in accordance with national and local policy objectives specified below as well as legislation referenced in Section 7 of this AIA.

2.2 Protected Trees

21) Trees which provide significant biodiversity value may be afforded protection based upon their location within a designated site. The planning application boundary of the Proposed Ribble Crossing is immediately adjacent to the designated landscape of Forest of Bowland Area of Outstanding Natural Beauty (AONB) identified for its '*outstanding landscapes; unique and irreplaceable national assets*'[6]. No additional statutory designated sites of nature conservation are situated within or immediately adjacent to the assessment area of this AIA. Additional information on nearby ecological resources, designations and receptors can be found within the Volume 6 Chapter 9: Ecology of the ES. At the time of writing, tree loss associated to any national or local designated site has not been specified within this AIA.

22) The Hedgerows Regulations 1997 protect most countryside hedgerows from being removed (including being uprooted or otherwise destroyed). The Regulations are administered by the LPA which decides whether a hedgerow is important. The identification of important hedgerows is based on a number of ecological and cultural heritage criteria as assessed within Volume 6 Chapter 9: Ecology and Chapter 10: Cultural Heritage of the ES. Reinstatement associated with any important hedgerow loss is indicated within the Environmental Masterplan supporting Volume 6 Chapter 20: Environmental Mitigation of the ES.

23) Trees which provide a significant amenity value to a local area may be afforded protection under the Town and Country Planning (Tree Preservation) (England) Regulations 2012 or Town and Country Planning Act 1990. Correspondence received from Ribble Valley Borough Council on 21 December 2020 confirms the absence of Tree Preservation Orders (TPOs) within or immediately adjacent to the assessment area. Online checks on the Ribble Valley Borough Council website, dated 22 February 2021, confirms the absence of any Conservation Area within the assessment area for this AIA.

2.3 Planning Policy Objectives

24) Section 15 paragraph 175c[7] of the National Planning Policy Framework (NPPF, 2019) states that *'development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons and a suitable compensation strategy exists'*. The NPPF refers to veteran and ancient trees as irreplaceable habitat due to their *'age, size and condition, is of exceptional biodiversity, cultural or heritage value'*. This objective aligns consistently with the combined policy objectives as outlined below.

25) Policy DME1[8] of Ribble Valley Borough Council's Core Strategy (Ribble Valley Borough Council, 2014) sets targets for zero loss of statutorily protected trees, ancient woodland and veteran and ancient trees as a result of development.

[6] Forest of Bowland (2019). Forest of Bowland AONB Management Plan 2019 – 2024.[online] Available at: https://www.forestofbowland.com/management-plan [Accessed: 08 October 2020]
[7] Ministry of Housing, Communities and Local Government (2019). National Planning Policy Framework
[8] Ribble Valley Borough Council (2014). Core Strategy 2008-2028. A Local Plan for Ribble Valley. Adopted Version. [online] Available here: https://www.ribblevalley.gov.uk/download/downloads/id/10010/adopted_core_strategy.pdf [Accessed: 08 October 2020]

26) Policy DME2[9] of Ribble Valley Borough Council's Core Strategy (Ribble Valley Borough Council, 2014) states that 'development proposals will be refused which significantly harm landscape or landscape features including… hedgerows and individual trees (other than in exceptional circumstances where satisfactory works of mitigation or enhancement would be achieved, including rebuilding, replanting and landscape management)'

27) Policy DME1[10] of Ribble Valley Borough Council's Core Strategy (Ribble Valley Borough Council, 2014) seeks to protect its existing tree cover where potential developments are likely to have 'a substantial effect on tree cover'. Where applications are likely to have a substantial cover, applicants are required to:

- Provide detailed arboricultural survey information on trees (in accordance with BS5837:2012) that could be influenced by the proposed development
- Provide a tree constraint plan and assessment of development impacts to any affected trees
- A detailed tree protection plan is submitted with appropriate levels of detail.

[9] Ribble Valley Borough Council (2014). Core Strategy 2008-2028. A Local Plan for Ribble Valley. Adopted Version. [online] Available here: https://www.ribblevalley.gov.uk/download/downloads/id/10010/adopted_core_strategy.pdf [Accessed: 08 October 2020]
[10] Ribble Valley Borough Council (2014). *op. cit.*

3. Site Observations and the Tree Survey

3.1 Ancient Tree Inventory

28) A desktop search, made on 24 February 2021, of the Woodland Trust's Ancient Tree Inventory (ATI) database indicates the absence of existing verified veteran or ancient trees within the assessment area. Nevertheless, it should be noted that the ATI is not a definitive database for veteran / ancient trees.

3.2 Treescape of the Proposed Ribble Crossing

29) Trees within the assessment area are predominantly situated at agricultural field boundaries, flanking West Bradford Road or alongside various watercourses, including the River Ribble.

30) The assessment area is also intermittently covered with scattered individual broadleaf trees including two potential veteran ash trees.

Illustration 1: Potential veteran ash (red arrowed) located in an agricultural field south of the River Ribble

Illustration 2: Potential veteran ash located in an agricultural field immediately south of the River Ribble/west of adjoining West Bradford Road

3.3 Quantitative Results of the Tree Survey

31) Table 1.1 summarises the number of trees surveyed and their relative grading categories within the assessment area.

Table 1.1: Totals table of tree survey features and grading categories

BS5837:2012 grades	Trees	Tree Groups	Woodlands	Hedges	Subtotals
A	8	0	0	0	**8**
B	72	7	0	1	**80**
C	112	73	0	15	**200**
U	14	0	0	0	**14**
Subtotals	**206**	**80**	**0**	**16**	**302**

32) Based upon the grading methodology of BS5837:2012, 'A' grade trees are of high quality and value and should be prioritised for retention. 'B' grade trees are of moderate quality and value and should be considered for retention where possible, although care should be taken to avoid misplaced retention. Any scheme should take into account the retention and protection of trees, but also the tree's future growth. The 'C' grade trees are of low quality and value and should not place a constraint on the proposals. U grade trees are those that are dead or are showing signs of significant, immediate, and irreversible overall decline.

33) Full tree survey results are described in the Tree Survey Schedule (Appendix F) and are indicated on Figure 6.5: TCAP. Explanation of terms used in the schedule can be found in Appendices C, D and E.

4. Arboricultural Impact Assessment (AIA)

4.1 Overview

34) The construction of the Proposed Ribble Crossing would result in the loss of trees through both permanent and temporary land-take. About 5 % of all surveyed vegetation (i.e. 15 features out of 302 total) of the Proposed Ribble Crossing is considered at risk of removal. The locations of impacted features are indicatively shown on Figure 6.6: PTRP.

4.2 RAG Assessment – tree removals

35) All features RAG assessed as 'Red' or 'Amber' are reported to be removed for the purposes of this assessment. At risk trees within the assessment area are summarised in Table 1.2 which breaks down trees into feature type, RAG status and category grading.

Table 1.2: Summary RAG status table of tree removals (Red and Amber)

Feature type	RAG status (Red and Amber)			BS5837:2012 grades			
	Removal	Partial removal	RRAtR	A	B	C	U
Tree (T)	7	0	3	0	2	8	0
Tree Group (G)	2	2	0	0	0	4	0
Hedgerow (H)	0	1	0	0	1	0	0
Woodland (W)	0	0	0	0	0	0	0
Subtotals	9	3	3	0	3	12	0

36) It should be noted that the RAG assessment is a precautionary approach to reporting impacts with location-specific protection measures not available for 'Red' or 'Amber' features at planning submission stage. It is anticipated that further consideration shall be given to at risk features as the design process progresses and engineering constraints are further defined.

4.3 RAG Assessment – tree retention

37) Retained trees within the assessment area are tabulated in Table 1.3 which breaks down trees into feature type, RAG status and category grading.

Table 1.3: Summary RAG status table of tree retention (Green)

Feature type	RAG status (Green)		BS5837:2012 grades			
	RwPM - encroached	RwPM - not encroached	A	B	C	U
Tree (T)	140	56	8	70	104	14
Tree Group (G)	57	19	0	7	69	0
Hedgerow (H)	12	3	0	0	15	0
Woodland (W)	0	0	0	0	0	0
Subtotals	**209**	**78**	**8**	**77**	**188**	**14**

38) Retention of encroached features would be subject to incorporation of pre-construction protection measures as specified in a SS-AMS. Further mitigation measures designed to protect retained features can be provided by documents listed in Table 1.5 of Section 6.7.

39) Non-encroached features are reported as RwPM due to a general requirement to site verify all surveyed tree feature locations against topographical information at detailed design stage - see Section 6.5 for general recommendations.

5. Discussion

5.1 Significant arboricultural impacts

40) Schedule 4(4) of the Town and Country Planning (Environmental Impact Assessment) Regulations 2017 highlights the need to describe *'significantly affected…fauna…and landscape'* however there is no recognised arboricultural methodology for assessing the significance of effects associated with tree loss. ES Chapter 6 (Landscape and Arboriculture) considers tree loss in the wider context of impacts to landscape character and visual amenity.

41) The Woodland Trust defines 'notable trees' to be *'usually a mature tree which may stand out in the local environment because they are large in comparison with other trees around them…in parts of the UK, where trees are less common, a tree may be relatively small…but notable because it is significant in its local environment'*[11]. In the context of national and local planning policy, significant tree loss is assessed where the following notable features are considered at risk of removal:

- Statutorily protected trees
- Veteran or ancient trees
- Ancient woodland
- High quality trees i.e. A grade features.

5.2 Tree Impacts at Proposed Ribble Crossing

42) Table 1.4 below summarises potential tree impacts by RAG status and category grading at the Proposed Ribble Crossing.

Table 1.4: Summary RAG status table of trees at Proposed Ribble Crossing

BS5837:2012 grades	RAG status			
	Removal/Partial Removal	RRAtR	RwPM	Subtotals
A	0	0	8	**8**
B	1	2	77	**80**
C	11	1	188	**200**
U	0	0	14	**14**
Subtotals	**12**	**3**	**287**	**302**

5.2.1 Notable trees at risk

43) Approximately 5 % of trees surveyed at the Proposed Ribble Crossing are subject to varying extents of removal or assessed to be at risk of removal including no tree loss assessed as notable. The locations of features to be removed are indicatively shown on Figure 6.6: PTRP. Specific areas of tree loss are further detailed in later in this report.

44) Five low quality roadside trees, including Illustration 3, would require removal in order to tie-in the proposed new haul route alignment with the existing road south of the River Ribble. Construction and demolition activities include demolition of the existing wall and construction of the new road alignment including associated earthworks and drainage requirements.

[11] Woodland Trust (2020) *Notable trees*. [online] Available at: https://ati.woodlandtrust.org.uk/what-we-record-and-why/what-we-record/notable-trees/ [Accessed: 06 October 2020]

Illustration 3: Low quality ash tree to be removed due to new road proposals south of the river. The tree has advanced symptoms of ash dieback.

45) Three low quality riverside features would require removal in order to facilitate the proposed bridge crossing. The proposed bridge alignment, as indicated by Illustration 4, targets an existing gap between two prominent individual trees on the southern side of the riverbank. A moderate quality tree, blue arrowed in Illustration 4, is reported as at risk of removal due to its proximity to likely excavation required for the bridge footing on the southern side of the riverbank.

Illustration 4: The proposed bridge crossing alignment targets a gap (red boxed) between established individual trees. Looking south, this gap is approximately 50 m wide and contains young low quality vegetation. The at risk moderate quality tree is approximately 3m from proposed works.

46) Three low quality boundary features are requiring varying extents of removal due to their encroachment within the proposed new road alignment and associated earthworks footprint. Features include boundary features located by minor watercourses (Illustration 5) or field boundary vegetation (Illustration 6).

Illustration 5: Brookside feature to be removed

Illustration 6: Field boundary feature to be removed

47) A section of moderate quality roadside hedge would require removal due to the proposed new road alignment and associated visibility splays for tie-in with the existing West Bradford Road (Illustration 7).

Illustration 7: Roadside hedge section (red boxed) to be partially removed for proposed tie-in of new road alignment with the existing West Bradford Road.

48) One moderate quality (Illustration 8) and one low quality boundary feature (Illustration 9) are at risk of removal due to their significant encroachment by the works area associated with the proposed new road alignment and earthworks.

Illustration 8: Multi-stem goat willow at risk of removal located on field boundary

Illustration 9: Low quality ash tree at risk of removal located on field boundary.

5.2.2 Notable encroachment

49) Approximately 69 % of trees surveyed at the Proposed Ribble Crossing are considered encroached but RwPM including notable trees. Encroached features are reported as retainable (Green in the RAG assessment) subject to pre-construction tree protection measures as detailed within a SS-AMS.

50) It is understood that potential impacts to two potential veteran trees (highlighted in Section 3.2) would be mitigated by a combination of:

- Flexibility within the planning application boundary to micro-site the indicative proposed core working area outside the 'Standing Advice Buffer Zone' constraints of these assets (refer to Section B.5 of Appendix B for more explanation on this term)
- Establishment of CEZs around the 'Standing Advice Buffer Zone' constraints of these assets to include no soil stripping, the use of ground protection and tree protection fencing.

51) Unavoidable construction / demolition activities in close proximity to retained tree RPAs should also be mitigated through the combination of protection measures specified in a SS-AMS. It is assumed that potential impacts to retained trees including three A grade trees would be mitigated by a combination of:

- Flexibility to micro-site indicative proposed core working area components of the Proposed Ribble Crossing outside constraints of retained tree RPAs (as specified in Section B.4 of Appendix B)
- Flexibility within the planning application boundary to avoid works within the RPAs of retained features including boundary vegetation
- Establishment of CEZs around retained tree RPAs to include the use of ground protection, tree protection fencing and no soil stripping within the RPAs of retained trees
- Micro-siting of scheme components outside of constraints of retained trees under site supervision of an Arboricultural Clerk of Works (ACoW) including potential facilitation pruning in line with BS3998:2010[12]
- Precautionary working methods to be adopted in line with National Joint Utility Group (NJUG) Volume 4.[13]

[12] British Standards Institute (2010). *British Standard 3998:2010: 2012 Tree work – Recommendations. London: BSI Ltd.*
[13] NJUG (2007). NJUG Guidelines on Planning, Installation and Maintenance of Utility Apparatus in Proximity to Trees. NJUG:UK.

6. Conclusion and Recommendations

6.1 Overview

52) Overall the Proposed Ribble Crossing would result in the potential loss of approximately 5 % of surveyed tree cover within Ribble Valley Borough Council as indicated in Figure 6.6: PTRP. 20 % of overall tree loss is attributed to trees identified as being of moderate quality. Tree loss impacts are detailed in Section 5.2.1 with further opportunities for retention discussed in Section 6.3.

53) The Proposed Ribble Crossing overall includes approximately 69 % of surveyed vegetation considered encroached but RwPM. It is understood that encroached vegetation considered RwPM would be subject to pre-construction tree protection measures specified in a SS-AMS and shown on a TPP. Notable tree encroachment is detailed in Section 5.2.2. Mitigation for these trees can be provided by documents listed in Table 1.5 of Section 6.7.

6.1.1 Summary of Impacts

6.2 Preliminary Removals

54) Approximately 80 % of total tree loss comprises of trees RAG assessed as 'Red' i.e. features located within the indicative proposed core working area of the planning application boundary. Reported tree loss predominantly includes low quality trees as outlined in Sections 5.2.1. The Proposed Ribble Crossing design is considered fixed however consideration should be given to retain these trees as design proposals develop.

6.3 Further Opportunities for Retention

55) Approximately 20 % of total tree loss comprises of trees RAG assessed as 'Amber' i.e. features located outside the indicative proposed core working area but within the planning application boundary. This comprises of two B grade features as discussed in Section 5.2.1.

56) Further consideration should be given to 'Amber' trees as the design process progresses and engineering constraints are further defined. RRAtR trees are identified by an amber colour within the 'RAG status' column of the Tree Survey Schedule and the PTRP.

6.4 Tree Protection Measures

57) At this stage in the design process, details relating to specific tree protection measures and construction techniques recommended to retain encroached vegetation is not required. General tree protection principles are outlined in Section 1.7 with potential mitigation measures highlighted as part of Appendix 3.2 Construction Code of Practice (CCoP).

6.5 General Recommendations

58) It is recommended that site verification of all assessed survey features should reference a full topographical survey of existing stem locations at a later design stage.

59) Prior to the removal of the trees or groups listed in this report, or any tree surgery works being undertaken, it is essential that the trees are subsequently checked again for legal protected status. These include TPOs and Conservation Areas, locally or nationally designated sites or ancient woodland.

60) Established trees, especially those of mature and above age class, should be prioritised for retention wherever possible. Ideally all works should be sited outside the more sensitive RPAs of these trees.

61) Alternative working practices should be considered where construction/demolition activities are in close proximity to retained tree RPAs and cannot be avoided. Further mitigation measures designed to protect retained features can be provided by documents listed in Table 1.5 of Section 6.7.

6.6 Ancient/Veteran Tree Assessment

62) No ancient or veteran trees would be affected by the Proposed Ribble Crossing. All potential veteran/ancient trees would require a bespoke tree assessment in order to verify these designations (see Section B.5 of Appendix B for further details). This should be an industry accepted assessment methodology or trees could be verified via the Woodland Trust's ATI program.

6.7 Arboricultural Action Required

63) Table 1.5 lists the standard elements, as referenced in BS5837, to satisfy arboricultural concerns for this development if planning permission is granted. These standard elements are recommended to ensure appropriate tree protection is considered and applied throughout the duration of the works.

Table 1.5: Follow up arboricultural input relating to the proposed development

Recommended Arboricultural Input	Purpose	Timing
Continued arboricultural support for the project	Technical advice provided during the detailed design phase to avoid tree impacts.	Following any major design changes or advance works design development.
Site Specific Arboricultural Method Statement (SS-AMS)	The SS-AMS provides contractors with works information to implement aspects of development that are either within the RPA or has the potential to result in loss of or damage to a tree to be retained e.g. ground protection, 'no-dig' construction methods, hand-digging areas or site supervision.	Following final design agreement and all construction detail being made available.
Tree Protection Plan (TPP)	Provide schematic details of where protective measures (i.e. fencing or ground protection) will be installed.	Following final design agreement in conjunction with the SS-AMS.
Site monitoring and supervision by the project arboriculturist or Arboricultural Clerk of Works (ACoW)	Ensure protection measures and the method statement are being implemented correctly i.e. for encroached retained features	At agreed intervals before and during the construction phase of the project.

64) It is recommended to maintain contact with the project arboriculturist throughout the planning and design stage for the relevant additional input to be addressed at the appropriate point.

65) Impacts to the trees, as outlined within this AIA report, could alter with any changes to the current design proposals. Tree impacts should therefore be reviewed as the design process progresses with all relevant parties informed of the changes, where appropriate.

6.8 Site Supervision

66) Consideration should be given to a competent project arboriculturist or ACoW visiting the site and monitoring the works at a time agreed at the pre-commencement site meeting. The role of the project arboriculturist/ACoW role is to monitor compliance with arboricultural protection recommendations and providing on site advice on any tree problems that arise or modifications that become necessary.

67) The key stages requiring supervision would be agreed at the pre-commencement site meeting, but would usually include:

- Tree pruning
- On-site tree marking for felling operations to help identify the extents of what can be safely retained

- Installation of tree protection barriers or ground protection
- Significant excavation/ground level change works within retained tree RPA
- Mitigation measures for retained or at risk trees i.e. veteran and ancient trees
- Regular monitoring of compliance.

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Town and Country Planning (Tree Preservation) (England) Regulations 2012. London: HMSO.

Appendix A. Reference Material

Reference name within AIA	Description	Date produced	Date of assessment
Tree survey information	Tree survey information used in the assessment of tree impacts was taken from the following GIS spatial layers entitled: • 'Individual Trees within 20m' • 'Individual Trees within 20m RPAs' • 'Tree Group Canopies within 20m' • 'Tree Group Canopies within 20m RPAs'	24/02/21	24/02/21

Appendix B. Scope and Methodologies

B.1 Spatial Scope

The assessment area was identified during desktop assessments based upon high-resolution aerial imagery and design envelope information provided by the client. The spatial scope of surveys considers trees located within and up to 15 m from the planning application boundary. The assessment area has been refined by the exclusion of vegetation located to the northern roadside of West Bradford Road.

B.2 Survey Methodology

Table 1.6 lists the tools and techniques used to conduct the tree survey and the parameters measured.

Table 1.6: Survey tools and techniques used

Parameters Recorded	Tools Used or Estimated
Tree height and cardinal points	Metres measured from ground level using a clinometer and laser distance measure. Cardinal points for tree groups/hedgerows and woodland features are typically reported on the greatest single lateral crown spread found within the feature.
Stem diameter at breast height (DBH) taken from 1.5m at ground level for trees over 75mm DBH. (Unless specified otherwise in tree schedule).	Diameter measuring tape and recorded in millimetres (mm)
Structural and physiological condition	External visual tree assessment (from the ground) – The Body Language of Trees, Research for Amenity Trees No 4 (Mattheck, 1994).
Root Protection Area (RPA)	Calculation method in BS 5837:2012 (BSI, 2012)
Tree quality assessment	Cascade chart and grading methodology in BS 5837:2012 (BSI, 2012) – see Appendix D.
Tree location data capture	ArcGIS collector app software on GPS-enabled survey tablet for plotting of features using open source high resolution aerial imagery.

Individual trees are recorded individually if they represent standout features in terms of their age class, DBH or BS5837 category grading outlined in Appendix D.

At planning submission stage it is considered appropriate to collectively group tree stems when features are the same BS5837 category grading/feature type, similar size/age class/DBH range and are located close together. For tree group, hedgerows or woodland features, the largest visible stem near the outer margins of each feature was measured. The DBH of this measured tree will then provide the basis of the collective RPA of this group.

The health and condition of trees can change rapidly and all trees, even healthy ones, are at risk from unpredictable climatic and man-made events. The assessment is based on the observed health and structural condition of the trees at the time of survey by suitably qualified inspectors. The health, condition and safety of trees should be checked on a basis commensurate with the level of risk and preferably on an annual basis, as recommended in Common sense risk management of trees (National Tree Safety Group, 2011). The tree survey conducted for this report is not a tree health and safety survey and should not be used as such.

B.3 Tree Constraints and Assessment Plan Methodology

The TCAP visually represents baseline data clipped up to 20 m from the planning application boundary and depicts the existing above ground and below ground constraints posed by surveyed trees. Corresponding tree survey data is tabulated within the Tree Survey Schedule of Appendix F.

Each surveyed feature has been provided with unique reference number, based on its relative location to the Proposed Programme of Works, running from north to south using an automated GIS script. Each survey feature number will be prefixed with a 'T', 'G', 'H' or 'W' to identify their feature type as an individual tree, tree group, hedgerow or woodland respectively.

The TCAP provides indicative Root Protection Area (RPA) dimensions as calculated using formulae in BS5837:2012. RPAs are applied radially as a circular area measured from an individual tree or as an off-set from indicative canopy extents of a collective feature i.e. tree groups, hedgerows or woodlands.

At the time of writing no survey features has been repositioned to Ordnance Survey (OS) base mapping or topographical survey. No RPA modification has been undertaken when producing the TCAP. Deviation in the RPA (section 4.6.3 of BS 5837) from the original would have to consider the following factors whilst still providing adequate protection for the root system:

- Morphology and disposition of the roots, when influenced by past or existing site conditions e.g. the presence of roads, water courses, hard surfacing, ditches, footings
- Topography and drainage
- The soil type and structure
- The likely tolerance of the tree to root disturbance or damage, based on factors such as species, age, condition and past management.

B.4 RAG Assessment Methodology

An interim assessment of potential impacts was made by overlaying the existing tree RPA or canopy constraints with the indicative proposed core working area and planning application boundary referenced in Appendix A. Potential impacts on trees were also informed following communications with the United Utilities design team of the Proposed Bowland Section with regards to:

- Flexibility within the planning application boundary to avoid working within the RPAs of retained features including boundary vegetation
- Flexibility within the planning application boundary to avoid working within the 'Standing Advice Buffer Zone' of potential veteran trees (refer to Section B.5 of Appendix B for more explanation)
- Flexibility to micro-site indicative design components of the Proposed Ribble Crossing outside constraints of retained tree features including:
  - Construction Laydown Areas
  - Top Soil storage areas
  - Welfare and Generator locations
  - Temporary Construction Access routes
  - Highway Drainage routes and discharge points
- Potential location-specific mitigation measures for encroached features located outside of the proposed core working area e.g. formation of CEZs or reduced soil stripping.
- Establishment of CEZs for potential veteran trees on the basis of their 'Standing Advice Buffer Zone' instead of their RPA (refer to Section B.5 of Appendix B for more explanation)

The locations of features to be removed are indicatively shown on Figure 6.6: PTRP with preliminary impacts based upon RAG principles detailed in Table 1.7 below.

Table 1.7: Summary table of RAG status

RAG status	Parameter/s	Reporting
Red	Survey features to be fully or partially removed (for tree groups, hedgerows or woodlands) due to their location within the proposed core working area.	Red features will be reported to be removed as indicated on the PTRP. Trees to be removed or requiring partial removal are identified within the Tree Survey Schedule's 'AIA' column with an 'R' or 'P' respectively plus a red coloured cell within the 'RAG status' column.
Amber	Survey features considered at risk due to: ▪ Their encroached location to proposed core working area margin ▪ Their encroached location within the residual planning application boundary outwith the proposed core working area ▪ No location specific protection measures have been agreed by the United Utilities design team at this planning submission stage.	Amber features are reported as a 'Removal Risk Aiming to Retain' (RRAtR). This is a precautionary approach however it is anticipated that further consideration be given to RRAtR trees as the design process progresses and engineering constraints become further defined. RRAtR features will be reported to be removed for the purpose of this AIA as indicated on the PTRRP plus an amber coloured cell within the 'RAG status' column of the Tree Survey Schedule. All encroached features are identified within Tree Survey Schedule's 'AIA' column by an 'E'.
Green	**Scenario 1:** Survey features considered retainable due to feature location-specific protection measures being agreed by the United Utilities design team despite: ▪ Their encroached location relative to the proposed core working area margin ▪ Their encroached location within the residual planning application boundary outwith the proposed core working area; **Scenario 2:** Survey features considered retained due to: ▪ Their location within the assessment area ▪ Non-encroachment by the Proposed Bowland Section	Green features are reported to be 'Retained with Protection Measures' (RwPM). RwPM features will be reported as retained for the purposes of this AIA and are indicated by a green coloured cell within the 'RAG status' column of the Tree Survey Schedule and the PTRRP. All encroached RwPM features are identified within Tree Survey Schedule's 'AIA' column by an 'E'. Non-encroached RwPM trees are identified by a 'N' within the 'AIA' column

B.5 Ancient/Veteran Tree Assessment Methodology

Arboricultural surveys at this stage of the project have been undertaken based on BS5837: 2012 surveying guidance. The initial assessment of potential ancient and veteran trees is determined by surveyor experience, site surveyors' observations/comments and site photographs. Arboricultural surveyors determine this potential status of trees using visual tree assessment methods and the observation of features that include but are not limited to the list below:

- Tree species
- Life stage and tree size
- Extensive decay/hollowing
- Crown retrenchment/senescence
- Large quantity of crown deadwood
- Major limb fractures/storm damage
- Habitat spaces such as decay holes/hazard splits/crevices
- Presence of fungi, sap runs/slime flux
- Presence of epiphytic plants/lichens
- Bark loss/lightning strikes
- Water pools/aerial rooting.

Within publications and guidance offered by various organisations and government bodies such as the Woodland Trust and Natural England there is no agreed definition on what constitutes an ancient or veteran tree. Based on Annex 2 of the NPPF, as adopted by the Arboricultural discipline, the definition is of an ancient or veteran tree:

'A tree which, because of its age, size and condition, is of exceptional biodiversity, cultural or heritage value. All ancient trees are veteran trees. Not all veteran trees are old enough to be ancient but are old relative to other trees of the same species. Very few trees of any species reach the ancient life-stage'.

The emphasis within the above statement is on the word 'exceptional', which by its own definition creates a level of subjectivity amongst arboriculturists and other disciplines such as ecology.

Following on from the Veteran Tree Initiative (English Nature 1996-2000), there have been various publications detailing tree characteristics associated with aging trees. In addition, some systems have been published and used to formalise surveying of ancient, veteran and notable trees such as Special Survey Method (SSM) developed by Treework Environmental Consultancy and Recognition of Ancient Veteran and Notable Trees (RAVEN) developed by Forbes Laird Arboricultural Consultancy. At the time of writing no recognised method to survey ancient/veteran trees (i.e. RAVEN) has been agreed or used to substantiate the quantity/quality of individual features associated with any given tree identified as a potential ancient/veteran by the projects arboricultural surveyors.

Indicative RPAs are reported based upon the guidance provided within BS5837:2012 and shown figuratively in the TCAP and PTRP. Indicative protection buffers based on Governmental Standing Advice for ancient and veteran trees in England should also be considered at a later stage to inform detailed design. These greater protection zones are also shown figuratively in the TCAP and PTRP as a separate legend item entitled 'Standing Advice Buffer Zone'. Governmental Standing Advice recommends a minimum 15 m buffer zone from Ancient Woodland and potentially larger distances for ancient and veteran trees which is:

- Calculated as a minimum of 15 times larger than the diameter of the tree
- 5 m from the edge of the tree's canopy if greater than the above value.

Appendix C. Technical Glossary of Terms

AIA: Arboricultural Impact Assessment.

AMS: Arboricultural Method Statement.

Ancient tree: An ancient tree is exceptionally valuable attributed with great age/size/cultural heritage/biodiversity value as a result of significant wood decay and the habitat created from the ageing process. All ancient trees are veteran trees with very few trees of any species reaching the ancient life-stage.

Bark: A term usually applied to all the tissues of a woody plant lying outside the vascular cambium.

Basal flare: The region at the base of a tree where the major lateral roots join the stem, with buttress-like formations on the upper side of their junction.

Canker: A lesion formed by the death of bark and cambium often due to fungal or bacterial infection.

Condition: An indication of the physiological vitality of the tree. Where the term 'condition' is used in a report, it should not be taken as an indication of the stability of the tree.

Conservation Area: A designated area that requires notice (currently six weeks) to be given to the local planning authority prior to the commencement of any tree works.

Construction exclusion zone: Area based on the Root Protection Area (in square metres) to be protected during development, by the use of barriers and/or ground protection.

Coppice: A traditional woodland management technique of periodically cutting trees to ground level in order to stimulate new growth from the base. Native broadleaf species are often coppiced for as a conservation practice or for sustainable timber production.

Crown/Canopy: The main foliage bearing section of the tree.

Crown retrenchment: Die-back of the outer crown, giving rise to deadwood and stag-heads. A tree's crown retrenches after it reaches late maturity, or owing to some prejudicial episode (root damage, summer drought, insect infestation etc.) from which the tree may or may not recover.

Crown lifting: A term used to describe the removal of limbs and small branches to a specified height above ground level.

Deadwood: Branch or stem wood bearing no live tissues. Retention of deadwood provides valuable habitat for a wide range of species and seldom represents a threat to the health of the tree. Removal of deadwood can result in the ingress of decay to otherwise sound tissues and climbing operations to access deadwood can cause significant damage to a tree. Removal of deadwood is generally recommended only where it represents an unacceptable level of hazard. Minor deadwood is considered to be a diameter less than 25 mm and or unlikely to cause significant harm or damage on impact with a target beneath the tree.

Defect: In relation to tree hazards, any feature of a tree which detracts from the uniform distribution of mechanical stress, or which makes the tree mechanically unsuited to its environment.

Dieback: The death of parts of a woody plant, starting at shoot-tips or root-tips.

Disease: A malfunction in or destruction of tissues within a living organism, usually excluding mechanical damage; in trees, usually caused by pathogenic micro-organisms.

Dominance: In trees, the tendency for a leading shoot to grow faster or more vigorously than the lateral shoots; also the tendency of a tree to maintain a taller crown than its neighbours.

DBH (Diameter at Breast Height): Stem diameter measured at a height of 1.5 metres (UK) or the nearest measurable point. Where measurement at a height of 1.5 m is not possible, another height may be specified.

Epicormic: Adventitious shoot growth from a tree stem or branch characteristic of some native broadleaf tree species. Shoots typically arise from suppressed buds in bark and are often stimulated to grow as a result of stress.

Epiphyte: an organism that grows on the surface of a host plant but does not derive resources directly from the host. Presence on trees is often indicative of the tree's wider ecosystem/habitat value.

Habit: The overall growth characteristics, shape of the tree and branch structure.

Hazard beam: An upwardly curved part of a tree in which strong internal stresses may occur without being reduced by adaptive growth; prone to longitudinal splitting.

Included bark (ingrown bark): Bark of adjacent parts of a tree (usually forks, acutely joined branches or basal flutes) which is in face-to-face contact.

Layed hedge: the art or practice of making or maintaining a hedge by cutting branches partway through, laying them horizontally, and pegging them in position in order to create a strong thick hedge.

Longitudinal: Along the length (of a stem, root or branch).

Notable tree: Usually a mature tree which may stand out in the local environment because they are large in comparison with other trees around them. In parts of the UK, where trees are less common, a tree may be relatively small but notable because it is significant in its local environment.

Pollarding: is the removal of the tree canopy, back to the stem or primary branches. Pollarding may involve the removal of the entire canopy in one operation or may be phased over several years. The period of safe retention of trees having been pollarded varies with species and individuals. It is usually necessary to re-pollard on a regular basis, annually in the case of some species.

Primary branch: A major branch, generally having a basal diameter greater than 0.25 x stem diameter.

Pruning: The removal or cutting back of twigs or branches, sometimes applied to twigs or small branches only, but often used to describe most activities involving the cutting of trees or shrubs.

Reactive Growth/Reaction Wood: Production of woody tissue in response to altered mechanical loading; often in response to internal defect or decay and associated strength loss (of adaptive growth).

Root Protection Area (RPA): A layout design tool indicating the minimum area around a tree deemed to contain sufficient roots and rooting volume to maintain the tree's viability, and where the protection of the roots and soil structure is treated as a priority.

Secondary branch: A branch, generally having a basal diameter of less than 0.25 x stem diameter.

Slime Flux: Liquid, bacterial-based exudation from a tree.

Stem/s: The main supporting structure/s, from ground level up to the first major division into branches.

Stress: In plant physiology, a condition under which one or more physiological functions are not operating within their optimum range, for example due to lack of water, inadequate nutrition or extremes of temperature.

Topping: In arboriculture it is the removal of the crown of a tree, or of a major proportion of it.

Tree Preservation Order (TPO): Is an order made by the local authority and placed upon individual trees, groups of trees or areas of trees. The local authority must usually grant permission prior to any works undertaken to affected trees.

Under-storey: A layer of vegetation beneath the main canopy of woodland or forest or plants forming this.

Veteran tree: A loosely defined term for an old specimen that is of interest biologically, culturally or aesthetically because of its age, size or condition and which has usually lived longer than the typical upper age range for the species concerned.

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Appendix D. Cascade Chart of Tree Quality Assessment (taken from BS5837:2012)

Category and definition	Criteria (including subcategories where appropriate)		
Trees unsuitable for retention (see note)			
Category U			
Those in such a condition that they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years	Trees that have a serious, irremediable, structural defect, such that their early loss is expected due to collapse, including those that will become unviable after removal of other category U trees (e.g. where, for whatever reason, the loss of companion shelter cannot be mitigated by pruning) Trees that are dead or are showing signs of significant, immediate, and irreversible overall decline Trees infected with pathogens of significance to health and/or safety of other trees nearby, or very low quality trees suppressing adjacent trees of better quality NOTE Category U trees can have existing or potential conservation value which it might be desirable to preserve.		
Trees to be considered for retention			
	1 Mainly arboricultural qualities	**2 Mainly landscape qualities**	**3 Mainly cultural values including conservation**
Category A			
Trees of high quality with an remaining estimated life expectancy of at least 40 years	Trees that are particularly good examples of their species, especially if rare or unusual; or those that are essential components of formal or semi-formal arboricultural features (e.g. the dominant and/or principal trees within an avenue)	Trees, groups or woodlands of particular visual importance as arboricultural and/or landscape features	Trees, groups or woodlands of significant conservation, historical, commemorative or other value (e.g. veteran or semi-formal arboricultural trees or wood-pasture)
Category B			
Trees of moderate quality with an remaining estimated life expectancy of at least 20 years	Trees that might be included in Category A, but are downgraded because of impaired condition (e.g. presence of significant though remediable defects, including unsympathetic past management and storm damage), such as they are unlikely to be suitable for retention for beyond 40 years; or trees lacking the special quality necessary to merit the category A designation	Trees present in numbers, usually growing as groups or woodlands, such that they attract a higher collective rating than they might as individuals; or trees occurring as collectives but situated so as to make little visual contribution to the wider locality	Trees with material conservation or other cultural value
Category C			
Trees of low quality with an remaining estimated life expectancy of at least 10 years, or younger trees with a stem diameter below 150mm	Unremarkable trees of very limited merit or such impaired condition that they do not qualify in higher categories	Trees present in groups or woodlands, but without this conferring on them significantly greater collective landscape value; and/or trees offering low or only temporary/transient landscape benefits	Trees with no material conservation or other cultural value

Appendix E. Tree Survey Schedule Key

Column Header	Explanation
Tree ID and Est.	T – Tree G – Group W – Woodland H - Hedgerow # – DBH measurements estimated due to access restrictions or safety concerns. Observations limited to those made from a distance or full access to tree impeded (e.g. prolific ivy, uneven ground, brambles etc).
Diameter at breast height (DBH)	Tree stem diameter measured at 1.5 m from the ground. This reported figure relates to either single stemmed trees or the calculated DBH for multi-stemmed trees. In some instances, DBH will be taken from a different height as specified in 'Observations'
Canopy spread – N E S W	Canopy extents from main stem of individual tree will be shown using cardinal points in metres i.e. N (north) 7, E (east) 6, S (south) 5, W (west)7. Single largest canopy extent reported for groups/woodland/hedgerows.
Age Class	Young (Y) – A tree in the first quarter of its life span. Semi Mature (SM) – A tree in the latter stages of its first quarter, well established. Early Mature (EM) – A tree half-way through its life span, significant further growth potential. Mature (M) – A tree at or near its potential maximum size which is still growing vigorously in its third quarter of life span. Over Mature (OM) – A tree in decline in its final quarter of life span. Potential Veteran (V) – A tree which, because of its age, size and condition, is of exceptional biodiversity, cultural or heritage value. Refer to Section B.5 of Appendix B for more context.
Structural Condition (S)	Good (G) - No signs of decay or structural weakness. Fair (F) - Minor defects not causing structural weakness. Poor (P) - Severe decay in the main stem or branches/structurally weak.

Column Header	Explanation
Physiological Condition (P)	Good (G) - Showing no adverse risk of failure/defects. Fair (F) - Showing minor signs of deterioration. Poor (P) - Unlikely to recover to a good condition.
Estimated Remaining Contribution (ERC)	<10 - Less than 10 years of normal life expectancy remaining. 10+ - Between 10 and 20 years of normal life expectancy remaining. 20+ - Between 20 and 40 years of normal life expectancy remaining. 40+ - Tree would normally expect to live for more than 40 more years.
Root Protection Area (RPA) radius	Root Protection Area dimensions as calculated using formulae in BS5837:2012. Applied as either radially from an individual tree stem (individually surveyed trees) or as an off-set from the canopy extents of a collective feature (tree group, hedgerow or woodland).
AIA	R - Remove P – Partial removal E - Encroached RPA/canopy N - No encroachment
RAG status	Refer to symbology explained in Appendix B Section B.4 Table 1.7

Appendix F. Tree Survey Schedule including AIA Results

Tree Ref. No.	Species	Height (m)	DBH (mm)	Canopy spread (m)				Age class	Struc cond.	Physiol cond.	General Observations and Comments	ERC	Category grading	RPA radius (m)	AIA	RAG status
				N	E	S	W									
T1	Common ash	13	680	6	6	7	6	M	Fair	Fair	Large, open grown tree between field parcels. Numerous primary limb failures. Chalara ash dieback observed; reduced vigour with epicormic response throughout tree.	20+	B1	8.2	N	GREEN
G1#	Common ash, hawthorn, hazel	9#	100	4	4	4	4	SM	Good	Mixed	Linear shelter belt group dividing field parcels. Predominantly hazel, occasional hawthorn and larger ash. Chalara ash dieback symptoms. Shallow, water filled ditch immediately east of group along field boundary. Greater value as a collective of canopy cover.	40+	B2	1.2	E	GREEN
T2#	Common ash	12	750	5	8	6	3	M	Fair	Poor	Large roadside tree on riverbank. Chalara ash dieback, poor health. Stag headed form developing with moderately large dead limbs to c. 200 mm diameter. Small diameter hanging branch over highway boundary. Posing risk to highway. Recommend tree is felled.	10+	C1	9.0	N	GREEN

Tree Ref. No.	Species	Height (m)	DBH (mm)	Canopy spread (m)				Age class	Struc cond.	Physiol cond.	General Observations and Comments	ERC	Category grading	RPA radius (m)	AIA	RAG status
				N	E	S	W									
G2#	Blackthorn, hazel, hawthorn, elder	8	80	3	3	3	3	SM	Good	Good	Outgrown layered hedgerow with clump of blackthorn beyond to west. Occasional stems to 8 m. Screening between field parcels; inherent wildlife value; otherwise unremarkable and limited value.	40+	C2	1.0	E	GREEN
T3#	Hawthorn	5	212	3	3	3	3	SM	Good	Good	Healthy with balanced form. Unremarkable.	40+	C1	2.5	N	GREEN
G3#	Common ash, elm sp.	9	300	5	7	5	5	SM	Good	Mixed	Two trees on shallow riverbank between road and water, limited access. Chalara ash dieback observed; epicormic response.	20+	C2	3.6	N	GREEN
T4#	Common ash	17	600	7	6	7	8	EM	Good	Fair	Large, open grown tree between field parcels. Chalara ash dieback observed; reduced vigour with epicormic response throughout tree. Shallow ditch immediately east along field boundary.	20+	B1	7.2	E	GREEN
G4#	Common ash, hawthorn	10	200	4	5	4	4	SM	Good	Mixed	Unremarkable roadside trees. Chalara ash dieback.	10+	C2	2.4	E	GREEN
T5#	Common alder	10	436	4	6	6	3	EM	Good	Good	Riverside tree east of road. Estimated from roadside. Healthy. No significant defects observed.	40+	B1	5.2	N	GREEN

Tree Ref. No.	Species	Height (m)	DBH (mm)	Canopy spread (m)				Age class	Struc cond.	Physiol cond.	General Observations and Comments	ERC	Category grading	RPA radius (m)	AIA	RAG status
				N	E	S	W									
H5#	Hawthorn	2	180	1	1	1	1	SM	Fair	Good	Very short section of hawthorn stems managed as hedge. Slightly outgrown in height. Some stems <75 mm diameter.	40+	C2	2.2	E	GREEN
T6#	Common ash	8	266	4	6	5	1	SM	Poor	Poor	Twin stemmed. Chalara ash dieback. Very poor health and condition. Weighted towards river, posing low risk to highway.	<10	U	3.2	N	GREEN
G6#	Hawthorn, elder	6	90	3	3	3	2	SM	Good	Good	Unremarkable trees overhanging building east.	10+	C2	1.1	E	GREEN
T7	Common ash	8	400	3	5	6	4	SM	Poor	Poor	Chalara ash dieback. Very poor health and condition. Weighted towards river but posing level of risk to highway. Recommend tree is felled.	<10	U	4.8	N	GREEN
H7#	Hawthorn	1	125	1	1	1	1	M	Good	Good	Section of wider hedge at road boundary. Early mature to mature layered stems to c. 150 mm diameter.	10+	C2	1.5	E	GREEN
T8#	Common ash	9	350	3	4	5	3	SM	Good	Fair	Reasonably balanced form. Chalara ash dieback symptoms. Lower branches flailed east.	20+	C1	4.2	E	GREEN
H8#	Hawthorn, holly, elder, elm	1	120	1	1	1	1	M	Good	Good	Roadside hedgerow. Early mature to mature layered stems, predominantly hawthorn. Many stems <75 mm.	10+	C2	1.4	E	GREEN

Tree Ref. No.	Species	Height (m)	DBH (mm)	Canopy spread (m)				Age class	Struc cond.	Physiol cond.	General Observations and Comments	ERC	Category grading	RPA radius (m)	AIA	RAG status
				N	E	S	W									
T9#	Common ash	14	900	5	4	6	8	M	Fair	Poor	Large tree overhanging road north. Severe decline, Chalara ash dieback. Branches in upper canopy appear brittle, deemed likely to shed in short to medium term. Posing risk to highway. Recommend tree removed, moderate priority.	10+	C1	10.8	E	GREEN
G9#	hawthorn	6	250	3	3	3	3	EM	Good	Good	Ivy clad trees, north of stream overhanging Road north. Unremarkable.	10+	C2	3.0	E	GREEN
T10#	Hawthorn	1	90	1	1	1	1	Y	Good	Good	Small, unremarkable self-seeded tree.	10+	C1	1.1	E	GREEN
G10#	Hawthorn, elder	6	110	3	3	3	2	SM	Good	Good	Unremarkable trees overhanging building east.	10+	C2	1.3	E	GREEN
T11#	Common ash	7	140	3	3	3	2	Y	Good	Fair	Self-seeded tree, north of stream at roadside. Chalara ash dieback.	10+	C1	1.7	E	GREEN
H11#	Hawthorn	1	130	1	1	1	1	M	Good	Good	Roadside hedge, wider to west. Neatly clipped. Limited visibility within (ivy) to assess stem count and diameter; both estimated.	20+	B2	1.6	P	RED
T12#	Common ash	7	130	4	1	2	3	SM	Good	Fair	Unremarkable roadside tree, poor form. Chalara ash dieback.	10+	C1	1.6	N	GREEN

Tree Ref. No.	Species	Height (m)	DBH (mm)	Canopy spread (m)				Age class	Struc cond.	Physiol cond.	General Observations and Comments	ERC	Category grading	RPA radius (m)	AIA	RAG status
				N	E	S	W									
G12#	sycamore, elm sp.	8#	200	6	6	3	2	SM	Mixed	Mixed	Small group, self-seeded on riverbank beyond road boundary. Estimated from roadside. Healthy, unremarkable.	40+	C2	2.4	N	GREEN
T13#	Common alder	13	500	4	6	5	1	EM	Unknown	Good	Heavily ivy clad tree at roadside, north of stream. Very limited inspection. Appears healthy. Stem lean east, suppressed west.	10+	B1	6.0	E	GREEN
G13#	Common alder	17	870	5	6	6	7	M	Mixed	Good	Two mature trees in corner of field. Tree north DBH: 830; tree south DBH: #1000. Storm damage in southern tree, cavities, habitat potential. No apparent defects in northern tree. Both healthy.	20+	B3	10.4	E	GREEN
T14#	Sycamore	20	1300	8	7	8	8	M	Good	Good	Very large example of species at maturity. Immediately south of road, overhanging entire carriageway north. Balanced rounded, spreading canopy. Limited access around base of trunk. Multi stemmed from c. 4 m, acute unions, ivy cover to 10 m, may be obscuring defects. Very prominent tree in street scene and locality. No significant defects observed	40+	A3	15.6	E	GREEN

Tree Ref. No.	Species	Height (m)	DBH (mm)	Canopy spread (m)				Age class	Struc cond.	Physiol cond.	General Observations and Comments	ERC	Category grading	RPA radius (m)	AIA	RAG status
				N	E	S	W									
											from ground level. Occasional small diameter deadwood north over road, low risk. Immediately east of stream.					
G14#	Hawthorn, elm sp.	6	200	5	5	4	5	M	Good	Good	Mature hawthorn, semi mature elm. Healthy. West of watercourse.	10+	C2	2.4	E	GREEN
T15#	Sycamore	17	750	7	8	7	6	M	Fair	Poor	Large roadside tree with severe decline. Brittle looking deadwood in upper and west canopy, likely to shed deadwood and branches in short to medium term. Overhanging road. Heavily ivy clad, may be obscuring defects. Recommend tree removed, moderate priority.	10+	C1	9.0	E	GREEN
G15#	Hawthorn, holly, hazel, elm sp., common ash	8	100	4	4	4	4	SM	Good	Mixed	Linear group between fields. Unremarkable. Majority of stems <75 mm. Chalara ash dieback.	10+	C2	1.2	E	GREEN
T16#	Common ash	7	230	5	5	1	3	SM	Poor	Poor	Chalara ash dieback and Pseudomonas bacterial canker.	<10	U	2.8	N	GREEN

Tree Ref. No.	Species	Height (m)	DBH (mm)	Canopy spread (m)				Age class	Struc cond.	Physiol cond.	General Observations and Comments	ERC	Category grading	RPA radius (m)	AIA	RAG status
				N	E	S	W									
											Very poor condition. Low risk to highway.					
G16#	Hawthorn	1	80	1	1	1	1	SM	Good	Good	Two stems, east of stream. Neatly clipped as hedgerow but not functioning as such. DBH range #100 to #150. Unremarkable.	10+	C2	1.0	E	GREEN
T17#	Common alder	9	744	6	4	6	4	M	Fair	Good	Multi stemmed tree on water's edge beyond road, very limited access and inspection from roadside. Stem to south appears largely dead but some functional units remain. Healthy overall. Deadwood may provide habitat.	40+	B3	8.9	N	GREEN
G17#	Hawthorn, elder, common ash, holly, elm sp.	9	220	4	4	4	4	SM	Mixed	Mixed	Linear feature dividing field parcels. Ditch to south, stems growing on northern bank. Predominantly hawthorn, outgrown layered hedge stems. Occasional larger ash with Chalara ash dieback symptoms. Limited function and value other than screening and inherent wildlife value. Unremarkable trees.	10+	C2	2.6	E	GREEN

Tree Ref. No.	Species	Height (m)	DBH (mm)	Canopy spread (m)				Age class	Struc cond.	Physiol cond.	General Observations and Comments	ERC	Category grading	RPA radius (m)	AIA	RAG status
				N	E	S	W									
T18	Sycamore	8	150	2	2	2	2	SM	Good	Good	Small self-seeded tree north of road boundary wall. Healthy.	40+	C1	1.8	E	GREEN
G18#	Common ash, hawthorn	8	180	5	6	5	4	SM	Fair	Mixed	Small group north side of river. 2 ash, c. 150 mm DBH each; 1 multi stemmed hawthorn, #5 stems 120-200 mm DBH. Hawthorn root plate exposed at embankment edge, erosion. Chalara ash dieback. Unremarkable trees.	20+	C2	2.2	E	GREEN
T19#	Common ash	9	250	5	3	4	4	SM	Good	Fair	Chalara ash dieback. West of stream.	10+	C1	3.0	E	GREEN
G19#	Hawthorn, holly	6	100	3	3	3	3	SM	Good	Good	Linear group between fields. Unremarkable. Majority of stems <75 mm.	20+	C2	1.2	E	GREEN
T20#	Common alder	7	1000	1	4	7	3	M	Poor	Good	Previously failed stem, decay within large open wound with cavitation north. Lower branches remaining south, healthy. Habitat potential.	10+	C1	12.0	E	GREEN

Tree Ref. No.	Species	Height (m)	DBH (mm)	Canopy spread (m)				Age class	Struc cond.	Physiol cond.	General Observations and Comments	ERC	Category grading	RPA radius (m)	AIA	RAG status
				N	E	S	W									
G20#	Blackthorn, hazel, hawthorn, elm sp., elder, holly	9	100	4	4	4	4	SM	Good	Good	Linear shelter belt group of previously coppiced hazel and outgrown layered hedgerow stems. Cohesive with dense blackthorn thicket to west. Many stems <75 mm diameter, particularly hazel coppice regrowth. Healthy. Screening / shelter belt function and inherent wildlife value; otherwise limited value. Screening / shelter belt function and inherent wildlife value; otherwise limited value.	10+	C2	1.2	E	GREEN
T21#	Common ash	6	200	2	3	4	2	SM	Poor	Poor	Chalara ash dieback. Very poor condition. Very limited access and inspection.	<10	U	2.4	N	GREEN
G21#	Hawthorn, elder, holly	7	220	3	3	3	3	SM	Good	Good	Linear group along field boundary. Unremarkable trees, no significant greater collective value and function other than screening and inherent habitat value.	10+	C2	2.6	E	GREEN
T22#	Hawthorn	3	150	1	1	1	1	SM	Good	Good	Scrubby, self-seeded tree on ditch bank. DBH estimated below 0.5 m.	10+	C1	1.8	E	GREEN

Tree Ref. No.	Species	Height (m)	DBH (mm)	Canopy spread (m)				Age class	Struc cond.	Physiol cond.	General Observations and Comments	ERC	Category grading	RPA radius (m)	AIA	RAG status
				N	E	S	W									
G22#	Pedunculate oak	16	1286	6	9	6	6	M	Good	Good	Two mature trees east of stream, one with squat form, other notably taller. Smaller DBH estimated. Limb failures in larger tree. No significant defects observed overall. Healthy, prominent, particularly larger tree.	20+	B2	15.4	E	GREEN
T23#	Hawthorn	4	150	2	2	2	1	SM	Good	Good	Unremarkable tree.	10+	C1	1.8	E	GREEN
G23#	Common ash, hawthorn, holly, elm sp.	9	250	4	4	4	4	SM	Mixed	Mixed	Southern end of wider linear feature running north-south between field parcels. Stems predominantly between #100 to #200 mm DBH; #400 mm DBH ash with failed stem at c. 2 m, at southern end of group; stem appears hollow to ground level. Limited visibility, vegetation; habitat potential.	10+	C2	3.0	E	GREEN
T24#	Sycamore	5	130	1	1	1	1	SM	Fair	Good	Previously topped tree with regrowth. Unremarkable. Very limited access and inspection.	40+	C1	1.6	N	GREEN
G24#	Hazel, holly, elm sp., hawthorn	7	110	4	4	4	4	SM	Good	Good	Unremarkable, east of stream. Many stems <75 mm.	10+	C2	1.3	E	GREEN

Tree Ref. No.	Species	Height (m)	DBH (mm)	Canopy spread (m)				Age class	Struc cond.	Physiol cond.	General Observations and Comments	ERC	Category grading	RPA radius (m)	AIA	RAG status
				N	E	S	W									
T25	Pedunculate oak	15	820	6	6	5	7	M	Good	Fair	Large tree west of stream. Dieback in upper canopy, occasional small diameter deadwood. Primary limb failures. Remaining canopy healthy, no significant defects observed.	10+	B1	9.8	E	GREEN
G25#	Elm sp., hawthorn,	8	300	3	3	3	3	EM	Good	Good	Southern end of linear shelter belt group beyond wire fencing. Limited access, estimated from POS. 1 elm and 4 hawthorns recorded, remaining trees deemed outside scope of survey. Max DBH est.	40+	C2	3.6	N	GREEN
T26#	Common alder	9	600	3	4	5	5	M	Fair	Fair	Larger tree within wider linear feature. Bifurcate at c. 1.5 m. Large trunk wound east running up co-dominant stem growing to west; decay; full extent unknown. Saprophytic fungi fruiting occasionally in decayed areas. Dieback in stem to west. Branch failures.	10+	C1	7.2	E	GREEN
G26#	Elm sp.	10	250	5	5	5	5	SM	Mixed	Good	Moderately sized trees along stream, all east of stream except one stem to west. One tree to centre of group previously much larger stem diameter; failed,	20+	B2	3.0	E	GREEN

Tree Ref. No.	Species	Height (m)	DBH (mm)	Canopy spread (m)				Age class	Struc cond.	Physiol cond.	General Observations and Comments	ERC	Category grading	RPA radius (m)	AIA	RAG status
				N	E	S	W									
											decayed and now two stems, one notably larger. Healthy.					
T27#	Holly	9	583	6	7	3	3	M	Good	Good	Very large example of species at maturity. Healthy. West of stream.	10+	B1	7.0	E	GREEN
G27#	Hawthorn, holly, elder, common ash, hazel	13#	120	3	3	3	3	SM	Good	Mixed	Linear field boundary feature. Predominantly outgrown, layered hawthorn stems to c. 120 mm diameter. Majority of arising stems <75 mm diameter. Occasional larger ash; Chalara ash dieback. Multi stemmed hazel, some stems coppiced at c. 1 m high. Screening function and inherent wildlife value, otherwise limited function and unremarkable. Some contribution to landscape and rural setting but limited.	10+	C2	1.4	E	GREEN
T28#	Hawthorn	6	150	2	2	2	2	SM	Good	Good	Scrubby tree within dense blackthorn thicket, limited inspection. Unremarkable.	10+	C1	1.8	E	GREEN

Tree Ref. No.	Species	Height (m)	DBH (mm)	Canopy spread (m)				Age class	Struc cond.	Physiol cond.	General Observations and Comments	ERC	Category grading	RPA radius (m)	AIA	RAG status
				N	E	S	W									
G28#	Blackthorn, common ash, holly, hawthorn, elder, hazel	7	130	3	3	3	3	SM	Mixed	Mixed	Portion of linear feature between field parcels, broad in places. Very limited access and visibility from peripheries. Dense areas of blackthorn scrub may not contain any stems >75 mm. Occasional larger stems to c. 300DBH. Occasional elder in poor condition and ash with Chalara ash dieback. Inherent wildlife value; screening function; otherwise limited function and value. Increased value as collective but not to warrant higher quality category.	10+	C2	1.6	E	GREEN
T29#	Hawthorn	3	340	0	1	1	4	M	Poor	Good	Low quality tree, stem failed east, decay.	<10	U	4.1	E	GREEN
G29#	Wych elm, hawthorn, common ash	10	150	6	5	5	5	SM	Good	Good	Linear group of riverside understorey trees. Healthy. Some multi stemmed trees, ave. DBH estimated.	40+	C2	1.8	E	GREEN
T30#	Hawthorn	6	450	3	3	3	3	M	Good	Good	Lower canopy suppressed north, reasonably balanced form overall. Healthy. West of stream.	10+	C1	5.4	E	GREEN
G30#	Wych elm, elder, hawthorn	6	150	3	4	3	5	SM	Good	Good	Understorey riverside regeneration, healthy.	40+	C2	1.8	E	GREEN

Tree Ref. No.	Species	Height (m)	DBH (mm)	Canopy spread (m)				Age class	Struc cond.	Physiol cond.	General Observations and Comments	ERC	Category grading	RPA radius (m)	AIA	RAG status
				N	E	S	W									
											Unremarkable, screening function along river corridor.					
T31#	Hawthorn	4	220	1	2	2	1	EM	Good	Good	Unremarkable. Branches failed east, regrowth. Healthy.	10+	C1	2.6	E	GREEN
G31	Sycamore, common ash	9	190	4	4	4	4	SM	Mixed	Mixed	Two self-seeded trees on riverbank. Ash showing Chalara ash dieback symptoms. Unremarkable trees.	20+	C2	2.3	E	GREEN
T32#	Elm sp.	11	350	4	4	5	5	SM	Good	Good	Open grown with balanced form and shape. Healthy.	20+	B1	4.2	E	GREEN
G32#	Poplar sp., hawthorn	17	170	4	4	4	4	SM	Good	Good	Mixed group of scrubby hawthorns at roadside and much larger but relatively young poplar to north in third party land. Many stems <75 mm diameter, discounted. Max. DBH est. from roadside.	40+	C2	2.0	N	GREEN
T33#	Hawthorn	4	140	0	4	1	0	SM	Fair	Fair	Very unremarkable tree. Dead stem west discounted.	10+	C1	1.7	E	GREEN
G33#	Hawthorn, common alder	6	110	3	3	3	3	SM	Good	Good	Unremarkable trees, east of stream. Healthy.	10+	C2	1.3	E	GREEN

Tree Ref. No.	Species	Height (m)	DBH (mm)	Canopy spread (m)				Age class	Struc cond.	Physiol cond.	General Observations and Comments	ERC	Category grading	RPA radius (m)	AIA	RAG status
				N	E	S	W									
T34	Common ash	10	280	5	5	4	4	SM	Good	Fair	Larger tree within linear field boundary feature. Chalara ash dieback symptoms. Balanced form.	10+	C1	3.4	E	GREEN
G34#	Elder, wych elm	6	130	2	2	3	4	Y	Good	Good	Two self-seeded trees with c. 130 mm DBH. Elder with reduced vigour. Unremarkable.	40+	C2	1.6	P	RED
T35#	Elder	6	275	0	2	5	1	M	Poor	Fair	Failed to south, root plate lifted north. Larger stem cracked at base. Poor health, some live buds.	<10	U	3.3	E	GREEN
G35#	Hawthorn	1	100	0	1	0	0	SM	Fair	Fair	Previously felled stems at c. 1.5 m. Aerial imagery not representative. Unremarkable.	10+	C2	1.2	E	GREEN
T36	Elm sp.	12	637	5	4	5	4	SM	Good	Good	Multi stemmed tree, immediately east of concrete wall. Healthy. Acute unions, included bark.	20+	B1	7.6	E	GREEN
G36#	Hawthorn	4#	80	3	3	3	3	SM	Mixed	Mixed	Small pocket of scrubby trees immediately north of wooden stile. Unremarkable. Occasional elder in poor health. Inherent wildlife value, limited function and value otherwise.	10+	C2	1.0	E	GREEN
T37#	Hawthorn	6	400	4	2	2	2	M	Good	Good	Field boundary tree. More prominent with improved, balanced form compared to	10+	B1	4.8	E	GREEN

Tree Ref. No.	Species	Height (m)	DBH (mm)	Canopy spread (m)				Age class	Struc cond.	Physiol cond.	General Observations and Comments	ERC	Category grading	RPA radius (m)	AIA	RAG status
				N	E	S	W									
											other hawthorns along boundary. Healthy.					
G37#	Hawthorn, holly, elder, common ash, hazel	16#	120	3	3	3	3	SM	Good	Mixed	Linear field boundary feature. Predominantly outgrown, layered hawthorn stems to c. 120 mm diameter. Majority of arising stems <75 mm diameter. Occasional larger ash; Chalara ash dieback. Multi stemmed hazel, no obvious signs of coppice; very few stems >75 mm. Screening function and inherent wildlife value, otherwise limited function and unremarkable. Some contribution to landscape and rural setting but limited.	10+	C2	1.4	E	GREEN
T38	Common ash	17	790	5	6	7	7	M	Good, no significant defects.	Fair	Large, mature tree within riverside POS, overhanging public footpath. Occasional broken branches and small diameter deadwood, low risk. Moderate vigour and bud presence. No obvious signs of Chalara ash dieback observed, likely present.	20+	B1	9.5	N	GREEN

Tree Ref. No.	Species	Height (m)	DBH (mm)	Canopy spread (m)				Age class	Struc cond.	Physiol cond.	General Observations and Comments	ERC	Category grading	RPA radius (m)	AIA	RAG status
				N	E	S	W									
G38#	Hawthorn, wych elm, common ash, elder	6#	150	3	4	3	4	SM	Good	Good	Understorey regeneration. Chalara ash dieback, otherwise healthy. Unremarkable trees but functioning to screen river corridor.	40+	C2	1.8	P	RED
T39#	Pedunculate oak	10	600	5	6	6	5	M	Unknown	Good	Ivy clad tree in dense understorey vegetation. Limited inspection. Fenced off. Healthy. Broad, spreading canopy, reasonably balanced. Prominent tree in wider belt of vegetation.	20+	B1	7.2	E	GREEN
H39#	Hawthorn, elder hazel	5	100	2	1	2	1	SM	Good	Good	Hedgerow, neatly clipped. Clump of outgrown stems to west. Many stems <75 mm.	10+	C2	1.2	E	GREEN
T40#	Hawthorn	1	400	1	1	1	0	M	Fair	Good	Stump with healthy regrowth.	10+	C1	4.8	E	GREEN
G40#	Hawthorn, elder, elm, common ash	8	130	4	4	4	4	SM	Good	Mixed	Long linear group between fields. Predominantly hawthorn. Chalara ash dieback observed.	10+	C2	1.6	E	GREEN
T41#	Hawthorn	6	200	1	2	2	1	SM	Fair	Fair	Reduced vigour, occasional deadwood. Unremarkable. Poor form.	10+	C1	2.4	E	GREEN
G41#	Hawthorn, elm sp.	6	100	3	3	3	3	SM	Good	Good	South of stream. Layered hawthorn stems; individual elm, small, balanced form. Healthy. Unremarkable.	10+	C3	1.2	E	GREEN

Tree Ref. No.	Species	Height (m)	DBH (mm)	Canopy spread (m)				Age class	Struc cond.	Physiol cond.	General Observations and Comments	ERC	Category grading	RPA radius (m)	AIA	RAG status
				N	E	S	W									
T42	Common alder	13	760	10	5	3	5	M	Good	Good	Riverside tree overhanging public footpath east. Union failure in upper canopy with wound, minor decay, possible small cavity. Dieback in upper canopy with small diameter deadwood, low risk.	40+	B1	9.1	E	GREEN
G42#	Hawthorn, common ash, silver birch, hazel	9	100	4	4	4	4	SM	Good	Mixed	Small pocket of hawthorn between field parcels. Linear features adjoining to north, NE and SE. Majority of stems <75 mm diameter. Occasional larger ash stems to c. 130 mm DBH; Chalara ash dieback. PROW running through group and narrow brooks around perimeter north east. Failed silver birch stem, 520 DBH, with hung up limb over PROW, posing low risk; Fomitopsis betulina noted.	10+	C2	1.2	E	GREEN
T43#	Sycamore	10	600	5	3	5	6	EM	Good	Good	Canopy bias west, lower branches flailed east. Healthy. Low, sweeping limbs arising from trunk at c. 0.5 m to 1 m north and west.	40+	B1	7.2	E	GREEN

Tree Ref. No.	Species	Height (m)	DBH (mm)	Canopy spread (m)				Age class	Struc cond.	Physiol cond.	General Observations and Comments	ERC	Category grading	RPA radius (m)	AIA	RAG status
				N	E	S	W									
G43#	Hawthorn	5	280	4	4	4	4	M	Fair	Fair	Large, structurally compromised hawthorns. 2 trees: 290 and 270 DBH.	10+	C2	3.4	E	GREEN
T44#	Elder	6	130	1	2	1	1	SM	Fair	Fair	Unremarkable tree east of stream.	20+	C1	1.6	E	GREEN
H44#	Common ash, hawthorn	2	120	2	1	1	1	SM	Fair	Mixed	Short section of field boundary hedge at pavement edge. Neatly clipped south and to height 2 m. Chalara ash dieback.	40+	C2	1.4	N	GREEN
T45#	Hawthorn	7	324	4	2	2	2	EM	Fair	Good	Unremarkable tree with unbalanced form. Crown reduced north.	40+	C1	3.9	E	GREEN
G45#	Hawthorn	5	100	3	3	3	3	SM	Good	Good	Unremarkable trees, south of stream. Multi stemmed forms. Majority of stems <75 mm. Large clump of bramble.	10+	C2	1.2	E	GREEN
T46#	Sycamore	12	380	5	4	6	6	SM	Good	Good	Beyond fence line, limited access. Estimated from lay by. Healthy tree with reasonable form; suppressed east.	40+	B1	4.6	N	GREEN
H46#	Hawthorn	1	120	1	1	1	1	SM	Good	Good	Majority of stems <75 mm with occasional mature layered stem throughout. Occasional gaps.	10+	C2	1.4	E	GREEN
T47#	Hawthorn	5	200	3	3	3	3	M	Fair	Good	East of stream. Layered stem. DBH of layered stems to c. 300; majority of arising stems	10+	C1	2.4	E	GREEN

Tree Ref. No.	Species	Height (m)	DBH (mm)	Canopy spread (m)				Age class	Struc cond.	Physiol cond.	General Observations and Comments	ERC	Category grading	RPA radius (m)	AIA	RAG status
				N	E	S	W									
											<75 mm, one arising stem #100. Healthy.					
G47#	Elm sp., sycamore, common ash	10	150	4	4	4	6	SM	Good	Mixed	Understorey trees and regeneration along riverbank. Chalara ash dieback, ash in poor health, stem lesions observed. Larger sycamores to south covered in ivy. Unremarkable trees but functioning to screen river corridor.	40+	C2	1.8	E	GREEN
T48	Common ash	7	280	4	4	4	4	SM	Good	Fair	Balanced form. Chalara ash dieback, advanced symptoms including stem lesions. Twin stemmed, acute union with included bark; natural brace above. Adjacent public footpath.	40+	C1	3.4	E	GREEN
G48#	Hawthorn, elder	6	200	3	3	3	3	SM	Mixed	Mixed	Linear feature between field parcels. Occasional elder in poor health and condition, typical. Growing either side of wide, shallow drainage ditch. Connectivity with adjoining canopy cover at northern end. Slightly gappy in places where stems failed but contiguous feature. Numerous stems	10+	C2	2.4	R	RED

Tree Ref. No.	Species	Height (m)	DBH (mm)	Canopy spread (m)				Age class	Struc cond.	Physiol cond.	General Observations and Comments	ERC	Category grading	RPA radius (m)	AIA	RAG status
				N	E	S	W									
											<75 mm diameter. PROW along northern edge of group.					
T49#	Common ash	10	653	6	5	4	5	M	Poor	Poor	Large tree at field boundary. Bifurcate at c. 1 m. Severe decline and stag headed form. Very short internodal growth indicating stress. Chalara ash dieback symptoms. Potential habitat tree.	10+	C1	7.8	E	AMBER
H49#	Common ash, hawthorn	2	120	1	1	1	1	SM	Fair	Mixed	Very short remnant section of hedge at pavement edge. Neatly clipped. Chalara ash dieback.	40+	C2	1.4	N	GREEN
T50#	Common ash	12	700	3	1	1	14	M	Good	Fair	Large tree with heavy stem lean and canopy bias west over river. Limited access. Chalara ash dieback, epicormic response throughout tree.	20+	B1	8.4	E	GREEN
G50#	Hawthorn, elder, common ash, elm sp., sycamore	8	150	3	3	3	3	SM	Good	Mixed	Linear group along water course. Too cohesive to group either side of stream. Chalara ash dieback. Unremarkable trees.	10+	C2	1.8	E	GREEN

Tree Ref. No.	Species	Height (m)	DBH (mm)	Canopy spread (m)				Age class	Struc cond.	Physiol cond.	General Observations and Comments	ERC	Category grading	RPA radius (m)	AIA	RAG status
				N	E	S	W									
T51#	Hawthorn	3	295	2	1	2	3	EM	Good	Good	Beyond field boundary fence, east of stream. Layered stem growing prostrate from stream embankment. Healthy.	10+	C1	3.5	N	GREEN
G51#	Hawthorn	6	150	3	3	3	3	EM	Good	Good	Section of old layered hedge stems to c. 200 mm max diameter. Arising stems to c, 130 mm max diameter. Numerous arising stems <75 mm. Unremarkable.	10+	C2	1.8	E	GREEN
T52	Common alder	12	780	6	4	6	6	M	Fair	Fair	East of stream. Dieback in upper canopy, lower canopy healthy. Occasional small diameter branch failures and deadwood, low risk. Balanced form, larger tree within wider belt of vegetation along stream.	10+	B1	9.4	E	GREEN
T52#	Hawthorn	5	421	4	4	1	3	M	Good	Good	Remnant hedge stem. Flailed south, otherwise outgrown. Healthy, unremarkable.	40+	C1	5.0	N	GREEN
T53	Sycamore	18	895	6	9	6	7	M	Good	Good	Large tree overhanging lay by and highway, growing beyond lay by boundary fence. Bifurcate at ground level, acute union with included bark. Healthy, prominent tree. Crown raised south.	40+	A1	10.7	N	GREEN

Tree Ref. No.	Species	Height (m)	DBH (mm)	Canopy spread (m)				Age class	Struc cond.	Physiol cond.	General Observations and Comments	ERC	Category grading	RPA radius (m)	AIA	RAG status
				N	E	S	W									
G53#	Hawthorn	5	110	1	2	2	2	SM	Good	Good	Unremarkable multi stemmed trees between field parcels. Healthy.	10+	C2	1.3	N	GREEN
T54#	Sycamore	18	1000	9	10	5	10	M	Good	Poor	Mature riverside tree. Severe canopy dieback and stag headed form. Lower branches reduced east over field. Small diameter deadwood and branch failures. Limited access.	10+	B3	12.0	E	GREEN
G54#	Common ash, hawthorn	7	120	3	3	3	3	SM	Good	Mixed	Self-seeded trees, unremarkable. Chalara ash dieback; reduced life expectancy for ash.	40+	C2	1.4	N	GREEN
T55#	Poplar sp.	20	350	4	5	3	5	SM	Good	Good	Larger individual poplar within wider group. Very limited access and inspection, estimated from roadside.	40+	B1	4.2	N	GREEN
G55#	Hawthorn	6	130	3	3	3	1	EM	Good	Good	Two multi stemmed trees, west of stream. Flailed west. Unremarkable.	10+	C2	1.6	R	RED
T56#	Sycamore	17	750	3	4	6	6	M	Good	Good	Mature riverside tree. Occasional branch failures. No significant defects observed. Limited access. Healthy.	40+	B1	9.0	E	GREEN
G56#	Common ash, hawthorn	9	150	5	1	1	3	SM	Fair	Mixed	Appears to be Outgrown remnant hedge section. Ash in poor condition; Chalara ash dieback. Hawthorns unremarkable with typically	20+	C2	1.8	N	GREEN

Tree Ref. No.	Species	Height (m)	DBH (mm)	Canopy spread (m)				Age class	Struc cond.	Physiol cond.	General Observations and Comments	ERC	Category grading	RPA radius (m)	AIA	RAG status
				N	E	S	W									
											congested crowns and multi stemmed forms, bark inclusions.					
T57#	Hawthorn	4	130	2	2	2	2	SM	Good	Good	Beyond field boundary fence, immediately west of stream. Suppressed east, healthy. Unremarkable. Limited access and inspection. DBH estimated below 0.5 m.	10+	C1	1.6	N	GREEN
G57#	Hawthorn, elder	6	120	3	3	3	3	SM	Mixed	Mixed	Southern section of wider linear feature dividing field parcels. Occasional elder in poor health and condition. Unremarkable trees. Growing either side of wide, shallow drainage ditch.	10+	C2	1.4	E	GREEN
T58#	Hawthorn	5	160	2	3	2	1	SM	Good	Good	Beyond field boundary fence, immediately east of stream. Suppressed west, healthy. Unremarkable. DBH estimated below 0.5 m.	10+	C1	1.9	N	GREEN
G58#	Hawthorn	5	175	3	1	2	3	SM	Good	Good	Two trees, DBH #200 & #150. Unremarkable.	40+	C2	2.1	E	GREEN
T59#	Goat willow	8	524	7	5	6	7	EM	Good	Good	Sprawling form with wide spreading crown, typical. Healthy. Lower branches flailed east. Multi stemmed at ground	10+	B1	6.3	E	AMBER

Tree Ref. No.	Species	Height (m)	DBH (mm)	Canopy spread (m)				Age class	Struc cond.	Physiol cond.	General Observations and Comments	ERC	Category grading	RPA radius (m)	AIA	RAG status
				N	E	S	W									
											level. Limited access; within dense vegetation.					
G59#	Hawthorn	4	170	4	4	1	1	SM	Fair	Good	Unremarkable trees, structurally compromised, decay. Stem failures, largely dead but some functional units remain.	10+	C2	2.0	E	GREEN
T60	Common alder	15	540	5	9	3	6	M	Good	Good	Reduced crown density but appears healthy. Occasional shoot dieback and dead twigs in outer canopy.	40+	B1	6.5	E	GREEN
G60#	Hawthorn	7	125	3	3	3	2	SM	Good	Good	Unremarkable trees growing from rocky outcrop. Multi stemmed, DBH range #100-150 mm. Healthy. Some stems <75 mm diameter.	40+	C2	1.5	E	GREEN
T61	Elm sp.	12	330	1	6	5	3	SM	Good	Good	Roadside tree beyond pavement boundary and fence. Heavily asymmetric canopy form, biased south. Crown raised south previously. Healthy.	20+	B1	4.0	N	GREEN
G61#	Hawthorn	6	150	3	3	2	3	EM	Fair	Good	Three multi stemmed trees beyond pavement at field edge. DBH range: 100-200 mm; ave. DBH estimated.	40+	C2	1.8	N	GREEN
T62	Sycamore	6	130	2	2	2	2	Y	Good	Good	Unremarkable riverside tree.	10+	C1	1.6	E	GREEN

Tree Ref. No.	Species	Height (m)	DBH (mm)	Canopy spread (m)				Age class	Struc cond.	Physiol cond.	General Observations and Comments	ERC	Category grading	RPA radius (m)	AIA	RAG status
				N	E	S	W									
H62#	Hawthorn	1	130	1	1	1	1	EM	Good	Good	Single layered stem managed as very short hedge section. Many arising stems <75 mm diameter.	10+	C2	1.6	E	GREEN
T63#	Hawthorn	6	182	4	1	1	2	SM	Good	Good	Unremarkable tree growing through lower canopy of mature tree. Suppressed, canopy bias north.	10+	C1	2.2	N	GREEN
G63#	Hawthorn	6	175	3	4	3	4	M	Good	Good	Self-seeded trees on embankment. Multi stemmed, DBH range: 100-250; ave. DBH estimated.	40+	C2	2.1	N	GREEN
T64	Hawthorn	6	350	3	5	2	3	M	Fair	Good	Roadside tree within field boundary. Healthy. Large for species. Reasonable form. Basal decay, full extent unknown, not considered extensive.	20+	C1	4.2	E	GREEN
G64#	Lawson cypress	12	260	4	4	4	4	SM	Good	Good	Four trees within third party land, limited inspection. Healthy. Ave. DBH est. from field boundary.	40+	B2	3.1	E	GREEN
T65#	Crack willow	4	140	1	0	4	2	Y	Good	Good	Unremarkable tree at water's edge. Healthy. Heavy lean south.	40+	C1	1.7	R	RED
G65#	Common ash	14#	750	7	7	10	6	M	Fair	Poor	Third party trees, two stems: #800 & #600 DBH. Limited access and inspection. Chalara ash dieback, significantly reduced vigour with epicormic	10+	C2	9.0	E	GREEN

Tree Ref. No.	Species	Height (m)	DBH (mm)	Canopy spread (m)				Age class	Struc cond.	Physiol cond.	General Observations and Comments	ERC	Category grading	RPA radius (m)	AIA	RAG status
				N	E	S	W									
											response. Inonotus hispidus wood decay fungi observed on larger tree, c. 6 m to north at branch union; desiccated fruiting body.					
T66#	Common alder	11	960	7	5	6	6	M	Good	Good	Twin stemmed tree, east of stream. Balanced canopy, slight bias north, healthy. Prominent tree in vicinity.	10+	B1	11.5	N	GREEN
H66#	Hawthorn	1	230	1	1	1	1	M	Fair	Good	Field boundary hedgerow. Layered stems, majority mature up to c. 350 DBH at <0.5 m above ground level. Majority of arising stems <75 mm diameter, as well as non-layered stems. Neatly clipped. Dilapidated with numerous gaps.	10+	C2	2.8	E	GREEN
T67	Common ash	14	1350	3	5	6	6	V	Fair	Fair	Large tree within field, south of river. Developing veteran features: cavities, decay, deadwood, wood decay fungi. Daldinia concentrica fruiting from limbs. Primary limb failures with regrowth. Chalara ash dieback symptoms on epicormic growth. Habitat potential.	10+	A3	16.2	E	GREEN

Tree Ref. No.	Species	Height (m)	DBH (mm)	Canopy spread (m)				Age class	Struc cond.	Physiol cond.	General Observations and Comments	ERC	Category grading	RPA radius (m)	AIA	RAG status
				N	E	S	W									
G67#	Common ash, elm sp.	08#	90	3	3	2	2	Y	Good	Mixed	Unremarkable self-seeded trees. Chalara ash dieback.	40+	C2	1.1	E	GREEN
T68	Sycamore	20	1068	6	9	8	9	M	Good	Good	Large, prominent riverside tree. Twin stemmed, stems slightly distanced from each other, roots grafted in between to west. No significant defects.	40+	B1	12.8	E	GREEN
H68#	Hawthorn, holly, elder	1	150	1	1	1	1	M	Good	Good	Short section of field boundary hedgerow. Layered stems mature at up to c. 200 DBH at <0.5 m above ground level. Neatly clipped.	10+	C2	1.8	E	GREEN
T69#	Hawthorn	5	426	4	4	5	3	M	Fair	Fair	Mature layered stem, east of stream. Reduced vigour, decline. Multi stemmed, dead stems. Basal cavities, decay.	10+	C1	5.1	N	GREEN
G69#	Elder, hawthorn, holly	5	100	3	3	3	3	Y	Good	G	Scrubby, unremarkable trees, north bank of stream. Healthy.	10+	C2	1.2	E	GREEN
T70	Pedunculate oak	16	1140	6	4	7	5	M	Good	Good	Primary limb failures, slightly unbalanced form as result. Smaller branch failures also. Large prominent open grown tree in landscape and locality. Healthy. Longitudinal cracks along some limbs, habitat	10+	B1	13.7	E	GREEN

Tree Ref. No.	Species	Height (m)	DBH (mm)	Canopy spread (m)				Age class	Struc cond.	Physiol cond.	General Observations and Comments	ERC	Category grading	RPA radius (m)	AIA	RAG status
				N	E	S	W									
											potential; posing low risk in current context.					
H70#	Hawthorn, elder	1	150	1	1	1	1	M	Fair	Mixed	Short section of field boundary hedgerow. Layered stems, up to c. 200 DBH at <0.5 m above ground level. Majority of arising stems <75 mm diameter, as well as non-layered stems. Neatly clipped. Predominantly hawthorn. Occasional dead elder stems.	10+	C2	1.8	E	GREEN
T71#	Elder	4	160	1	1	2	2	SM	Good	Fair	Reduced vigour. Unremarkable. East of stream.	10+	C1	1.9	N	GREEN
G71#	Hawthorn	7	180	5	5	5	5	M	Fair	Good	Third party trees, limited inspection. Two multi stemmed trees, ave. DBH estimated. Third tree fallen, appears dead.	20+	C2	2.2	N	GREEN
T72#	Sycamore	20	780	6	7	6	7	M	Good	Good	Mature riverside tree. Limited access. No significant defects observed. Healthy.	40+	B1	9.4	E	AMBER
G72#	Common alder	11	380	6	6	5	6	M	Good	Good	Two trees on south bank of stream. Limited access and inspection. Stem west DBH: #380; stem east DBH: #220.	20+	B2	4.6	E	GREEN

Tree Ref. No.	Species	Height (m)	DBH (mm)	Canopy spread (m)				Age class	Struc cond.	Physiol cond.	General Observations and Comments	ERC	Category grading	RPA radius (m)	AIA	RAG status
				N	E	S	W									
											Healthy trees, cohesive canopies. Best quality and most prominent within wider belt of vegetation along stream.					
T73	Sycamore	10#	291	3	4	4	3	SM	Fair	Good	Multi stemmed self-seeded tree at pavement edge, outside fence line. Acute stem unions with included bark. Healthy, relatively unremarkable.	40+	C1	3.5	N	GREEN
G73#	Common ash, sycamore, elder	10	120	4	4	4	4	SM	Good	Mixed	Unremarkable self-seeded trees. Ash displaying reduced vigour; likely Chalara ash dieback, limited visibility from ground level.	10+	C2	1.4	E	GREEN
T74	Common alder	7	294	3	3	3	3	SM	Good	Good	Small, self-seeded tree on northern bank of river. Healthy, balanced form.	10+	C1	3.5	E	GREEN
G74#	Hawthorn, elm sp.	7	200	4	4	2	3	SM	Good	G	East of stream. One elm, one hawthorn. Unremarkable.	10+	C2	2.4	E	GREEN
T75#	Hawthorn	2	190	2	1	2	1	EM	Good	Good	Individual stem east of stream, neatly clipped canopy as hedgerow but not functioning as such.	10+	C1	2.3	E	GREEN
G75#	Common alder	8	120	4	4	4	2	SM	Good	Good	East of stream. Multi stemmed trees. Healthy.	10+	C2	1.4	E	GREEN

Tree Ref. No.	Species	Height (m)	DBH (mm)	Canopy spread (m)				Age class	Struc cond.	Physiol cond.	General Observations and Comments	ERC	Category grading	RPA radius (m)	AIA	RAG status
				N	E	S	W									
T76	Silver birch	12	400	4	5	4	3	EM	Good	Good	Prominent tree as much taller than surrounding vegetation. Balanced form, healthy. Slight kink in lower trunk. On western side of narrow ditch.	10+	B1	4.8	E	GREEN
G76#	Common alder	12	400	6	6	6	6	M	Mixed	Mixed	Fire damaged trees on western bank of stream around rubble pile. Stem and limb failures, decay. Vigour good, poor form, reduced quality trees due to condition.	10+	C1	4.8	E	GREEN
T77#	Sycamore	12	560	3	2	4	6	EM	Unknown	Good	Dense ivy-covered tree on riverbank, limited access and inspection. Vigour appears normal. Ivy may be obscuring defects.	40+	C1	6.7	E	GREEN
G77#	Sycamore, common ash	10	350	4	5	6	5	SM	Good	Mixed	Two twin stemmed trees on north bank of stream. Sycamore DBH: 340, #220; ash DBH: #350, #110. Asymmetric canopy forms, suppressing one another and forming single cohesive area of canopy. Ash tree vigour and bud presence looks normal; Chalara ash dieback likely present to some degree.	10+	C2	4.2	E	GREEN

Tree Ref. No.	Species	Height (m)	DBH (mm)	Canopy spread (m)				Age class	Struc cond.	Physiol cond.	General Observations and Comments	ERC	Category grading	RPA radius (m)	AIA	RAG status
				N	E	S	W									
T78	Hawthorn	5	299	3	3	2	3	EM	Good	Good	Roadside tree within field boundary. Healthy. Balanced form.	40+	C1	3.6	R	RED
G78#	Hawthorn, common ash, holly	6	200	4	4	4	4	SM	Good	Mixed	Linear group along east bank of stream. Contains one large ash stump with regenerative growth to c. 250 mm diameter. Majority of stems <150 mm diameter. Predominantly hawthorn. Unremarkable trees. Screening function, inherent wildlife value.	10+	C2	2.4	E	GREEN
T79#	Hawthorn	3	150	3	3	3	1	SM	Good	Good	Layered stem, DBH of layered stem estimated; arising stems <75 mm. Unremarkable. West of stream.	10+	C1	1.8	N	GREEN
G79#	Hawthorn	5	110	3	3	3	3	SM	Good	Good	East of stream. Unremarkable.	10+	C2	1.3	N	GREEN
T80#	Common ash	14	500	6	3	1	5	EM	Unknown	Fair	Ivy clad tree; may be obscuring defects. Reduced crown density and vigour; Chalara ash dieback. Unbalanced form: stem lean north over narrow brook.	10+	C1	6.0	E	GREEN
G80#	Elm sp., elder	6	130	3	4	3	4	Y	Good	Good	West of stream and set back several metres. Healthy. Unremarkable. Elm stem in poor condition.	10+	C2	1.6	N	GREEN

Tree Ref. No.	Species	Height (m)	DBH (mm)	Canopy spread (m)				Age class	Struc cond.	Physiol cond.	General Observations and Comments	ERC	Category grading	RPA radius (m)	AIA	RAG status
				N	E	S	W									
T81	Elm sp.	12	540	6	7	5	7	SM	Good	Good	Open grown tree, moderately large with balanced form. Healthy.	20+	B1	6.5	E	GREEN
G81#	Hawthorn	5	70	3	3	3	3	SM	Good	Good	South stream bank. Unremarkable self-seeded trees. Healthy. Number of stems <75 mm diameter.	10+	C2	0.8	E	GREEN
T82#	Hawthorn	4	192	3	3	3	3	SM	Good	Good	Roadside tree within field boundary. Healthy. Unremarkable.	40+	C1	2.3	R	RED
H82#	Hawthorn	1#	150	1	1	1	1	EM	Fair	Good	Short section of layered hedge. Layered stems to c. 200 mm diameter. Majority of arising stems <75 mm diameter.	10+	C2	1.8	E	GREEN
T83#	Elm sp.	7	130	1	5	4	5	Y	Good	Good	Self-seeded tree. Unremarkable. Healthy.	20+	C1	1.6	E	GREEN
G83#	Elm sp., blackthorn	5	150	3	3	3	3	SM	Good	Good	Unremarkable. West of stream.	10+	C2	1.8	N	GREEN
T84#	Common alder	11	692	2	8	6	5	M	Good	Good	Twin stemmed, growing in dense understorey vegetation, limited access and visibility. Healthy. A prominent tree amongst surrounding, smaller vegetation. Occasional small diameter broken / damaged branches.	40+	B1	8.3	E	GREEN

Tree Ref. No.	Species	Height (m)	DBH (mm)	Canopy spread (m)				Age class	Struc cond.	Physiol cond.	General Observations and Comments	ERC	Category grading	RPA radius (m)	AIA	RAG status
				N	E	S	W									
H84#	Hawthorn	1	150	1	1	1	1	EM	Fair	Good	East of stream. Individual, multi stemmed tree managed as very short hedge section. Neatly clipped.	10+	C2	1.8	E	GREEN
T85#	Sycamore	19	1000	7	7	6	6	M	Good	Good	Mature tree, prominent within wider linear tree belt along river. Lower branches east reduced over public footpath. Lower branch failures south apparent with regrowth and minor cavitation. Occasional branch failures in upper canopy. No significant defects observed.	40+	A1	12.0	E	GREEN
G85#	Hawthorn	5	130	3	3	3	3	SM	Good	Good	Short length of outgrown hedge. Layered stems to c. 140 mm diameter. All stems on east side of stream.	10+	C2	1.6	E	GREEN
T86#	Hawthorn	4	206	3	3	3	3	SM	Good	Good	Roadside tree within verge. Healthy. Balanced form but unremarkable overall.	40+	C1	2.5	R	RED
G86#	Common alder, hawthorn	6	150	2	3	4	2	SM	Good	Good	Unremarkable. West of stream.	10+	C2	1.8	N	GREEN
T87#	Elm sp.	7	393	5	5	6	5	SM	Good	Good	South of stream. Balanced, multi stemmed form, healthy.	10+	C1	4.7	N	GREEN

Tree Ref. No.	Species	Height (m)	DBH (mm)	Canopy spread (m)				Age class	Struc cond.	Physiol cond.	General Observations and Comments	ERC	Category grading	RPA radius (m)	AIA	RAG status
				N	E	S	W									
H87#	Hawthorn	1	150	1	1	1	1	M	Good	Good	Managed hedge between fields. Neatly clipped. Layered stems, some mature up to c. 200 mm diameter. Arising stems <75 mm diameter.	10+	C2	1.8	E	GREEN
T88#	Elm sp.	7	250	3	3	3	3	SM	Good	Good	East of stream. Balanced form, healthy.	10+	C1	3.0	N	GREEN
G88#	Hawthorn	6	120	2	3	2	3	SM	Good	Good	Assumed outgrown hedge stems. Healthy. Unremarkable. Third party.	10+	C2	1.4	N	GREEN
T89#	Sycamore	20	900	6	5	5	8	M	Unknown	Good	Dense ivy up to c. 11 m, may be obscuring defects. Vigour and bud presence normal. Larger tree within riverside tree belt.	40+	B1	10.8	E	GREEN
H89#	Hawthorn	1	150	1	1	1	1	M	Fair	Good	Field boundary hedge. Extends south into third party property at western end. Layered stems mature up to c. 200 mm diameter. Arising stems <75 mm diameter. Neatly clipped, occasional gaps.	10+	C2	1.8	N	GREEN
T90	Hawthorn	3	440	8	2	1	2	M	Poor	Dead	Dead tree, stem failed at base.	<10	U	5.3	E	GREEN
G90#	Elm sp., common ash	9#	150	3	3	3	3	SM	Good	Mixed	Self-seeded along river bank. Chalara ash dieback observed. Unremarkable.	10+	C2	1.8	N	GREEN

Tree Ref. No.	Species	Height (m)	DBH (mm)	Canopy spread (m)				Age class	Struc cond.	Physiol cond.	General Observations and Comments	ERC	Category grading	RPA radius (m)	AIA	RAG status
				N	E	S	W									
T91#	Elder	6	150	3	4	1	1	SM	Good	Good	Unremarkable tree growing through canopy of larger hawthorn.	10+	C1	1.8	E	GREEN
G91#	Aspen, goat willow, hawthorn	14#	250	5	2	5	3	SM	Good	Good	Self-seeded trees, north of stream. Occasional aspen stems tall; max. DBH recorded at 390. Stem range #100-390. Healthy.	10+	C2	3.0	E	GREEN
T92#	Hawthorn	4	200	3	3	3	3	SM	Good	Good	Roadside tree within verge. Healthy. Balanced form but unremarkable overall.	40+	C1	2.4	R	RED
G92#	Hawthorn	6	120	3	3	3	3	SM	Good	Good	End section of wider linear group. Screening function. North of ditch. Unremarkable.	10+	C2	1.4	N	GREEN
T93#	Hawthorn	7	444	3	3	3	3	EM	Good	Good	Multi stemmed tree, some stems fused. Balanced canopy slightly suppressed north by adjacent tree. Congested internal branch architecture, typical. Healthy.	20+	B1	5.3	E	GREEN
G93#	Hazel, hawthorn	6	100	3	3	3	3	SM	Good	Good	Unremarkable, west of stream. Stems <75 mm.	10+	C2	1.2	N	GREEN
T94	Silver birch	16	400	5	5	4	2	EM			Tall, prominent tree. Reasonably balanced form and shape, slight canopy bias east. Healthy. Occasional bacterial cankers along trunk. PROW beneath canopy south.	10+	B1	4.8	E	GREEN

Tree Ref. No.	Species	Height (m)	DBH (mm)	Canopy spread (m)				Age class	Struc cond.	Physiol cond.	General Observations and Comments	ERC	Category grading	RPA radius (m)	AIA	RAG status
				N	E	S	W									
G94#	Common alder	8	220	2	4	4	3	SM	Good	Fair	Growing in water. Decline in canopies.	10+	C2	2.6	E	GREEN
T95	Common ash	15	984	7	7	8	6	M	Fair	Fair	Twin stemmed tree with characteristic form; appears to be remnant layered stem from historic hedgerow. Stems hollow beneath, decay, full extent of cavitation and decay unknown. Decayed buttress roots north. Canopy vigour reduced, many twigs displaying short internodal growth. Chalara ash dieback likely present, no obvious symptoms observed. Potential next generation veteran tree.	20+	B3	11.8	E	GREEN
G95	Common alder	12	560	6	6	6	6	M	Good	Good	Two trees growing cohesively north of stream. Respective DBH 570 (western stem) and 540 (eastern stem). Occasional branch failures; regrowth from failure points. Healthy trees. Small branch cavities, may provide potential habitat.	20+	B2	6.7	E	GREEN
T96#	Hawthorn	2	115	2	1	2	1	EM	Good	Good	Individual stem west of stream, neatly clipped canopy as hedgerow but not functioning as such.	10+	C1	1.4	E	GREEN

Tree Ref. No.	Species	Height (m)	DBH (mm)	Canopy spread (m)				Age class	Struc cond.	Physiol cond.	General Observations and Comments	ERC	Category grading	RPA radius (m)	AIA	RAG status
				N	E	S	W									
G96#	Common alder, elm sp., common ash	10	350	4	4	4	4	EM	Mixed	Mixed	Unremarkable trees on northern stream bank, north of bridge. Largest alder stem within group failed previously; decaying trunk remaining, some live branches, habitat potential. Many stems growing from base of failed trunk to c. 200 mm diameter. Alder immediately north of bridge with dieback.	10+	C2	4.2	N	GREEN
T97	Elm sp.	9	440	4	4	6	6	SM	Good	Good	Reasonably balanced form slightly suppressed west. Healthy.	20+	B1	5.3	E	GREEN
G97#	Hawthorn, elder	6	120	3	3	3	3	SM	Good	Good	Unremarkable linear group along northern bank of stream. Unremarkable trees.	10+	C2	1.4	E	GREEN
T98#	Sycamore	19	781	7	8	3	8	M	Unknown	Fair	Twin stemmed tree overhanging river west and public footpath east. Stem to north ivy clad, may be obscuring defects; stem to south in good structural condition. Vigour normal.	40+	B1	9.4	N	GREEN
T99#	Common ash	9	300	5	5	5	4	SM	Good	Fair	Balanced, rounded canopy. Chalara ash dieback.	10+	C1	3.6	E	GREEN
T100#	Hawthorn	6	200	3	1	3	2	SM	Unknown	Fair	Dense ivy cover throughout entire structure, very limited	20+	C1	2.4	E	GREEN

Tree Ref. No.	Species	Height (m)	DBH (mm)	Canopy spread (m)				Age class	Struc cond.	Physiol cond.	General Observations and Comments	ERC	Category grading	RPA radius (m)	AIA	RAG status
				N	E	S	W									
											visibility and inspection. Vigour appears reduced.					
T101#	Common ash	11	550	7	6	6	6	EM	Good	Poor	Moderately large roadside tree within verge. Advanced Chalara ash dieback, reduced vigour.	10+	C1	6.6	R	RED
T102#	Common ash	10	424	6	4	5	5	SM	Good	Fair	Multi stemmed tree, reasonably balanced form. Chalara ash dieback observed but tree budding up well. No significant defects. Self-seeded hawthorns around base discounted from survey.	20+	B1	5.1	E	GREEN
T103	Hawthorn	6	130	2	2	2	2	SM	Good	Good	Unremarkable tree.	10+	C1	1.6	E	GREEN
T104#	Common alder	9	600	4	4	4	4	M	Good	Good	North of stream. Reasonably balanced canopy, low hanging to south. No significant defects observed.	10+	B1	7.2	E	GREEN
T105#	Hawthorn	3	300	3	1	1	1	SM	Poor	Dead	Dead stem, leaning north over wire fence.	<10	U	3.6	E	GREEN
T106#	Hawthorn	4	200	1	2	3	2	EM	Good	Good	Unremarkable. North of stream.	10+	C1	2.4	E	GREEN

Tree Ref. No.	Species	Height (m)	DBH (mm)	Canopy spread (m)				Age class	Struc cond.	Physiol cond.	General Observations and Comments	ERC	Category grading	RPA radius (m)	AIA	RAG status
				N	E	S	W									
T107#	Hawthorn	5	106	2	2	2	2	SM	Good	Good	Unremarkable tree. Most stems <75 mm DBH.	10+	C1	1.3	E	GREEN
T108#	Hawthorn	6	326	4	4	5	6	M	Good	Good	Largest DBH measured, others estimated. North of stream on edge of bank. Quite large for species. Reasonably balanced form. Healthy.	10+	B1	3.9	E	GREEN
T109#	Common alder	8	650	3	6	5	4	M	Good	Good	South of stream. Reasonably balanced canopy, slight bias south-east. No significant defects observed. Somewhat squat form.	10+	B1	7.8	E	GREEN
T110#	Hawthorn	1	130	1	2	1	1	SM	Good	Good	Individual stem, neatly clipped canopy as hedgerow but not functioning as such. Unremarkable.	10+	C1	1.6	E	GREEN
T111#	Hawthorn	4	150	2	2	3	2	SM	Good	Good	Unremarkable tree. DBH recorded below 0.5 m.	10+	C1	1.8	E	GREEN
T112#	Hawthorn	2	140	1	1	2	2	SM	Fair	Good	Very unremarkable tree. Stem failed previously.	<10	U	1.7	E	GREEN
T113#	Hawthorn	5	450	3	1	5	4	EM	Fair	Good	Asymmetric form, suppressed north. Small stem cavity where subordinate stem west failed, internal extent unknown. Unremarkable.	10+	C1	5.4	E	GREEN

Tree Ref. No.	Species	Height (m)	DBH (mm)	Canopy spread (m)				Age class	Struc cond.	Physiol cond.	General Observations and Comments	ERC	Category grading	RPA radius (m)	AIA	RAG status
				N	E	S	W									
T114#	Hawthorn	4	180	2	2	2	2	SM	Good	Good	Unremarkable tree. DBH recorded below 0.5 m.	10+	C1	2.2	E	GREEN
T115	Pedunculate oak	13	850	5	6	3	5	M	Good	Good	Open grown tree in field. Large wound on trunk, west facing; crevices within, habitat potential. Kink in lower trunk with reaction growth on south side. Lower branches reduced unsympathetically, stubs and tears. Healthy tree, prominent in open space within locality.	10+	B1	10.2	E	GREEN
T116#	Common alder	9	650	6	4	5	5	M	Good	Good	South of stream. Reasonably balanced canopy, suppressed east. Minor broken branches. No significant defects observed.	10+	B1	7.8	E	GREEN
T117#	Hawthorn	1	130	1	1	1	1	EM	Good	Good	Single, multi stemmed tree neatly clipped as hedgerow but not functioning as such. Unremarkable.	10+	C1	1.6	R	RED
T118#	Common alder	9	620	5	6	5	4	M	Good	Good	North of stream. Reasonably balanced canopy, slight bias east. No significant defects observed.	10+	B1	7.4	E	GREEN
T119#	Hawthorn	5	427	4	4	4	3	M	Fair	Good	Multi stemmed tree beyond pavement boundary fence. Congested crown, acute stem	20+	B1	5.1	N	GREEN

Tree Ref. No.	Species	Height (m)	DBH (mm)	Canopy spread (m)				Age class	Struc cond.	Physiol cond.	General Observations and Comments	ERC	Category grading	RPA radius (m)	AIA	RAG status
				N	E	S	W									
											unions, bark inclusions. Larger than neighbouring trees.					
T120#	Common ash	18	2000	12	6	10	7	M	Fair	Fair	Very large tree, notably large stem diameter. Primary limb and secondary branch failures. Inonotus hispidus fungi observed. Chalara ash dieback with epicormic response throughout canopy. Areas of decay and/or cavitation at points of failure, extent unknown. Daldinia concentrica observed. Large almost occluded cavity above main bifurcation in stem to south. Large buttress roots to west, smaller exposed roots north, browsing / cattle damage. Potential next generation veteran tree.	20+	B3	24.0	E	GREEN
T121#	Common alder	9	800	3	7	3	5	M	Fair	Good	South of stream. Stem cavitation and decay, full extent unknown. Habitat potential. Canopy vigorous. Broken branches, small diameter.	10+	B1	9.6	E	GREEN
T122#	Hawthorn	2	80	1	1	1	1	Y	Fair	Good	Single stem neatly clipped at roadside. 4 stems, 3 discounted. Unremarkable.	40+	C1	1.0	N	GREEN

Tree Ref. No.	Species	Height (m)	DBH (mm)	Canopy spread (m)				Age class	Struc cond.	Physiol cond.	General Observations and Comments	ERC	Category grading	RPA radius (m)	AIA	RAG status
				N	E	S	W									
T123#	Hawthorn	1	120	1	1	1	1	SM	Good	Good	Single, multi stemmed tree neatly clipped as hedgerow but not functioning as such. Unremarkable.	10+	C1	1.4	E	GREEN
T124	Hawthorn	7	664	3	3	4	5	M	Fair	Fair	Large example of species. Appears previously multi stemmed with stems fusing into one larger individual, with smaller stem to west. Dieback and stag headed form developing. Basal cavity in smaller stem with decay.	20+	C1	8.0	E	GREEN
T125#	Hawthorn	5	319	3	3	3	3	SM	Good	Good	South of stream. Balanced form and shape.	10+	C1	3.8	E	GREEN
T126	Common ash	20	1500	10	8	7	8	M	Fair	Poor	Very large example of species at maturity. Severe decline, crown retrenchment; Chalara ash dieback; other factors may be involved also. Large primary limb failure east. Dead branch south east, centrally placed longitudinal crack, habitat potential. Other crevices/cavities throughout, habitat potential. Cavity/loose bark in stem fluting north west; appears to be large stem hollow	20+	B3	18.0	E	GREEN

Tree Ref. No.	Species	Height (m)	DBH (mm)	Canopy spread (m)				Age class	Struc cond.	Physiol cond.	General Observations and Comments	ERC	Category grading	RPA radius (m)	AIA	RAG status
				N	E	S	W									
											behind; extent unknown. Some unsympathetic past management. Unlikely veteran candidate given Chalara present.					
T127	Common ash	6	189	2	2	1	2	SM	Fair	Poor	Dead tree, Chalara ash dieback.	<10	U	2.3	N	GREEN
T128#	Common ash	15	600	8	7	4	7	M	Fair	Poor	West of stream. Dieback, decline, reduced vigour. Chalara ash dieback. Previously twin stemmed, stem south failed at base and hung up in canopy west; Daldinia concentrica fruiting from dead, hung up portion. Canopy bias north.	10+	C1	7.2	E	GREEN
T129#	Common ash	12	1400	6	5	5	6	V	Fair	Fair	Large, mature tree in south east field corner. Diminished structural condition, branch failures, dead and decaying limbs, small branch cavities, branch wounds with decay. Daldinia concentrica wood decay	10+	A3	16.8	E	GREEN

Tree Ref. No.	Species	Height (m)	DBH (mm)	Canopy spread (m)				Age class	Struc cond.	Physiol cond.	General Observations and Comments	ERC	Category grading	RPA radius (m)	AIA	RAG status
				N	E	S	W									
											fungi along upper trunk and dead limbs to north west. Chalara ash dieback; epicormic response throughout aerial structure. Potential next generation veteran tree.					
T130#	Common ash	16	1000	8	10	10	6	M	Fair	Fair	Large tree growing towards bottom of steep embankment. Previous limb failures and failure of upper stem. Chalara ash dieback with epicormic response throughout canopy. Stump regrowth also. Areas of decay and/or cavitation at points of failure, extent unknown. Apparent wood decay fungi fruiting along remains of broken stem, possibly Daldinia concentrica. Potential next generation veteran tree.	20+	B3	12.0	E	GREEN

Tree Ref. No.	Species	Height (m)	DBH (mm)	Canopy spread (m)				Age class	Struc cond.	Physiol cond.	General Observations and Comments	ERC	Category grading	RPA radius (m)	AIA	RAG status
				N	E	S	W									
T131	Pedunculate oak	16	1060	4	10	5	4	M	Fair	Good	Mature tree in field boundary hedgerow. Canopy asymmetric and heavily biased NE and SW. Primary limb failures; bark damaged branches; stump regrowth. Crown raised over fields. Some deadwood, low risk. Small, dessicated fungal fruiting body in trunk fluting SW; unable to positive ID, likely Inonotus dryadeus. Cavitation beneath buttress root north, decay; full extent unknown.	10+	B1	12.7	N	GREEN
T132#	Elder	2	80	1	1	1	1	Y	Good	Good	Very unremarkable tree. South of stream. Growing through hawthorn canopy. 4 stems, 3 under 75 mm.	10+	C1	1.0	E	GREEN
T133#	Hawthorn	4	113	1	1	1	1	Y	Good	Good	Unremarkable. South of stream.	10+	C1	1.4	E	GREEN
T134	Common alder	11	800	6	7	5	6	M	Good	Good	Large, open grown example of species. Excellent, well balanced form. Vigorous. Occasional small diameter branches failed. No significant defects observed.	10+	B1	9.6	E	GREEN

Tree Ref. No.	Species	Height (m)	DBH (mm)	Canopy spread (m)				Age class	Struc cond.	Physiol cond.	General Observations and Comments	ERC	Category grading	RPA radius (m)	AIA	RAG status
				N	E	S	W									
T135#	Common alder	15	680	5	5	5	8	M	Good	Good	East bank of stream. Ivy cover into canopy, limited inspection. Canopy healthy, a few minor branches dying back. Reasonable form, typical of species. Limited access.	10+	B1	8.2	E	GREEN
T136#	Hawthorn	5	120	1	3	2	1	EM	Fair	Good	Unremarkable tree, east of stream. Wounded and split stems. Healthy. Growing immediately adjacent larger alder tree.	10+	C1	1.4	E	GREEN
T137#	Hawthorn	5	100	3	3	3	3	SM	Good	Good	Unremarkable self-seeded tree.	40+	C1	1.2	E	GREEN
T138	Beech sp.	10	450	6	5	5	6	SM	Good	Good	Open grown tree with balanced form. Aerial imagery suggests copper beech species. Healthy tree.	40+	B1	5.4	N	GREEN
T139#	Common ash	18	1000	7	5	5	6	M	Fair	Poor	Mature tree in hedgerow. Severe decline and low vigour. Chalara ash dieback symptoms; epicormic response. Liable to begin dropping limbs given age and condition.	10+	C1	12.0	E	GREEN
T140#	Hawthorn	4	90	2	3	2	3	Y	Good	Good	Unremarkable multi stemmed tree, north bank of stream at fence. Majority of stems <75 mm diameter.	10+	C1	1.1	E	GREEN

Tree Ref. No.	Species	Height (m)	DBH (mm)	Canopy spread (m)				Age class	Struc cond.	Physiol cond.	General Observations and Comments	ERC	Category grading	RPA radius (m)	AIA	RAG status
				N	E	S	W									
T141#	Common alder	12	650	6	5	5	5	M	Good	Good	West bank of stream. Bifurcate at 2 m, acute union, ivy covered. Canopy healthy, occasional branches with dieback and small diameter deadwood, low risk. Occasional minor branch failures. Limited access.	10+	B1	7.8	E	GREEN
T142#	Common ash	8	403	4	6	3	1	SM	Fair	Fair	Relatively small tree in hedgerow. Twin stemmed, stem to west dead; Daldinia concentrica wood decay fungi. Remaining stem in fair condition. Epicormic shoots showing discolouration symptomatic of Chalara ash dieback. Lower twigs appear dead.	10+	C1	4.8	E	GREEN
T143#	Common alder	6	216	3	3	4	1	SM	Good	Good	East of stream. Healthy.	10+	C1	2.6	E	GREEN
T144#	Yew	12	650	6	5	5	5	M	Good	Good	Third party tree, landowner not happy at surveyor's presence; surveyed from distance. Appears healthy.	40+	B1	7.8	N	GREEN
T145#	Common alder	14	500	6	6	7	6	M	Fair	Fair	West bank of stream. Dieback in canopy, reduced vigour. Occasional branch failures. No significant defects observed, limited access and inspection.	10+	C1	6.0	E	GREEN

Tree Ref. No.	Species	Height (m)	DBH (mm)	Canopy spread (m)				Age class	Struc cond.	Physiol cond.	General Observations and Comments	ERC	Category grading	RPA radius (m)	AIA	RAG status
				N	E	S	W									
T146#	Common alder	7	210	4	4	4	4	SM	Good	Good	East of stream. Healthy. Excellent, rounded conical form.	10+	B1	2.5	E	GREEN
T147#	Hawthorn	4	300	1	2	4	1	M	Poor	Poor	Largely dead tree. West of stream.	<10	U	3.6	E	GREEN
T148#	Hawthorn	6	150	1	1	1	2	SM	Good	Good	West of stream. Beneath canopy of larger tree. Unremarkable.	10+	C1	1.8	E	GREEN
T149#	Common ash	18	1000	8	8	9	8	M	Fair	Poor	Large tree in hedge. Severe decline, stag headed form developing. Primary limb failures, decaying stumps. Dead limbs to c. 200 mm diameter, posing low risk in current context. Fallen fruiting body of a Inonotus hispidus west of trunk; and rested within branch union directly above. Pseudomonas bacterial cankers on primary limbs. Liable to begin dropping limbs given age and condition.	10+	C1	12.0	E	GREEN
T150	Common alder	9	500	3	4	3	3	EM	Fair	Fair	Growing at field boundary fence line. Ground north wet. Some decline in outer canopy, otherwise healthy. Basal decay cavity west, full extent unknown.	10+	C1	6.0	E	GREEN

Tree Ref. No.	Species	Height (m)	DBH (mm)	Canopy spread (m)				Age class	Struc cond.	Physiol cond.	General Observations and Comments	ERC	Category grading	RPA radius (m)	AIA	RAG status
				N	E	S	W									
T151#	Common alder	12	300	2	2	2	3	EM	Poor	Dead	Standing dead tree, west of stream. Fire damaged. Decay throughout structure. PROW on east side of stream within fall distance. Posing low risk overall in current context.	<10	U	3.6	E	GREEN
T152#	Common alder	12	900	3	5	6	6	M	Poor	Poor	Large tree, predominantly dead other than single, small diameter lower branch growing to north east. Inonotus radiatus and Stereum sp. wood decay fungi fruiting up trunk. Recommend tree is pollarded around main bifurcation, retaining 2-3 m of trunk as deadwood habitat, if long term works are proposed in proximity. Dead limbs present hazard, low risk in current context.	<10	U	10.8	E	GREEN
T153#	Common alder	8	650	5	4	4	3	M	Fair	Good	West of stream at fence line. Previous storm damage, failed stems with re-established canopy. Limb cavitation, full extent unknown. Potential habitat tree.	10+	B3	7.8	N	GREEN
T154#	Hawthorn	5	250	4	4	2	1	SM	Good	Good	Twin stemmed, west of stream growing with heavy lean from bank. unremarkable.	10+	C1	3.0	N	GREEN

Tree Ref. No.	Species	Height (m)	DBH (mm)	Canopy spread (m)				Age class	Struc cond.	Physiol cond.	General Observations and Comments	ERC	Category grading	RPA radius (m)	AIA	RAG status
				N	E	S	W									
T155#	Common alder	6	500	3	4	4	5	M	Fair	Good	Storm damaged tree on south of stream. Stem failure at c. 4 m with regenerative growth to c. 6 m. Lower primary limbs remaining; limb west fire damaged at tip. Cavity at point of stem failure, habitat potential. Limited access and inspection.	10+	C1	6.0	E	GREEN
T156#	Common alder	11	900	6	6	6	5	M	Good	Good	West of stream at fence line. Excellent form, balanced. Healthy with vigorous canopy. Lower limb south damaged on top side, limited visibility from ground level. Occasional small diameter deadwood. No significant defects observed. Prominent tree and good example of species at maturity.	10+	A1	10.8	N	GREEN
T157	Common alder	9	800	5	3	3	1	M	Fair	Good	Crown raised previously. Storm damage with primary limb failures west at south. Decay at point of failure west; apparent woodpecker holes in remaining stump. Longitudinal crack in failed limb south and small cavities. Habitat potential. Unbalanced form.	10+	C1	9.6	E	GREEN

Tree Ref. No.	Species	Height (m)	DBH (mm)	Canopy spread (m)				Age class	Struc cond.	Physiol cond.	General Observations and Comments	ERC	Category grading	RPA radius (m)	AIA	RAG status
				N	E	S	W									
T158#	Hawthorn	5	100	3	3	3	2	SM	Good	Good	Unremarkable layered stem north of stream. Healthy.	10+	C1	1.2	E	GREEN
T159#	Hawthorn	6	160	4	4	4	4	M	Good	Good	Multi stemmed tree east of stream. Balanced form, multi stemmed. Prominent tree in wider belt of vegetation.	10+	B1	1.9	E	GREEN
T160#	Hawthorn	5	239	3	3	3	3	SM	Good	Good	Unremarkable. West of stream. Some stems <75 mm.	10+	C1	2.9	N	GREEN
T161	Common alder	10	460	5	1	1	5	M	Fair	Good	Bifurcate at c. 1 m, top side of stem to east wounded to c. 2 m above bifurcation. Basal cavity. Suppressed tree, unremarkable.	10+	C1	5.5	N	GREEN
T162#	Hawthorn	2	230	3	2	1	2	SM	Fair	Good	Unremarkable. West of stream. Basal decay.	10+	C1	2.8	N	GREEN
T163#	Common alder	15	1000	6	6	6	5	M	Good	Good	West of stream. Large, open grown tree. Large stem bole to 1 m high, stem narrows to c. 600 mm diameter above. DBH of bole recorded. Well balanced canopy, slight bias east. Good example of species at maturity. No significant defects observed.	10+	B1	12.0	N	GREEN
T164#	Hawthorn	6	260	3	2	4	2	SM	Good	Good	Unremarkable. West of stream.	10+	C1	3.1	N	GREEN

Tree Ref. No.	Species	Height (m)	DBH (mm)	Canopy spread (m)				Age class	Struc cond.	Physiol cond.	General Observations and Comments	ERC	Category grading	RPA radius (m)	AIA	RAG status
				N	E	S	W									
T165	Common alder	5	500	1	0	0	2	EM	Poor	Good	Stem failed previously at c. 5 m. Two small diameter branches growing to N and NW, healthy. Inonotus radiatus wood decay fungi fruiting up length of trunk to north. Habitat value as deadwood habitat.	<10	U	6.0	E	GREEN
T166	Common alder	11	610	4	5	4	4	EM	Good	Fair	Occasional branches with dying back; predominantly healthy canopy. Basal cavity, extending up trunk <0.5 m; no significant decay observed; thick ribs of reaction wood to peripheries.	10+	B1	7.3	E	GREEN
T167	Common alder	10	840	4	6	6	6	M	Fair	Good	Canopy dieback, stage headed form developing. Some live branches in upper canopy. Small diameter deadwood, low risk. Small branch and stem cavities; habitat potential.	10+	C1	10.1	E	GREEN
T168#	Common ash	17	800	6	7	6	5	M	Unknown	Fair	Large tree, west of stream. Ivy clad, may be obscuring defects. Chalara ash dieback symptoms.	10+	B1	9.6	N	GREEN
T169#	Common ash	12	850	7	8	5	5	M	Fair	Fair	Large tree overhanging river. Reduced vigour and decline, deadwood. Chalara ash dieback. Limited access, water. Lower branches west reduced.	10+	C1	10.2	N	GREEN

Tree Ref. No.	Species	Height (m)	DBH (mm)	Canopy spread (m)				Age class	Struc cond.	Physiol cond.	General Observations and Comments	ERC	Category grading	RPA radius (m)	AIA	RAG status
				N	E	S	W									
T170#	Hawthorn	4	184	2	2	2	2	SM	Good	Good	Multi stemmed tree north of stream. Unremarkable.	10+	C1	2.2	E	GREEN
T171	Common alder	6	720	4	4	5	7	M	Fair	Good	Mature tree south of narrow stream. Stem failed previously at c. 5 m, decay. Lower limbs remaining and healthy. Patches of missing bark along trunk north. Full extent of decay in trunk unknown.	10+	C1	8.6	E	GREEN
T172	Common alder	10	852	2	7	6	5	M	Good	Good	East of stream. Small stem cavity on stem to north, on west facing side; good reaction growth around peripheries. Suppressed by larger tree north. Canopy bias south and east. No significant defects observed. Healthy.	10+	B1	10.2	N	GREEN
T173#	Common alder	8	322	4	3	7	3	EM	Fair	Good	Multi stemmed tree overhanging river. Canopy bias south. Stem to east failed previously. Healthy but relatively unremarkable.	10+	C1	3.9	N	GREEN
T174	Common alder	7	450	5	5	2	3	EM	Fair	Fair	Dead limb south. Limb east dying back with reduced canopy density. Remaining canopy healthy. Limb north failed	10+	C1	5.4	E	GREEN

Tree Ref. No.	Species	Height (m)	DBH (mm)	Canopy spread (m)				Age class	Struc cond.	Physiol cond.	General Observations and Comments	ERC	Category grading	RPA radius (m)	AIA	RAG status
				N	E	S	W									
											previously with re-established canopy. Burring on lower trunk.					
T175#	Common alder	17	1200	7	6	6	6	M	Good	Good	Large, mature example of species in good health. Upper stem failed previously. Occasional small diameter deadwood and broken branches. No significant defects observed. Balanced form. Prominent tree. Given subcategory 3 due to size and age; no veteran features. South of stream.	40+	A3	14.4	E	GREEN
T176	Common alder	12	880	7	5	5	4	M	Fair	Good	Large tree with storm damage. Crack running along length of trunk from ground to main bifurcations, west. Potentially hollow trunk, full extent unknown. Habitat potential, bats. Remaining canopy healthy other than occasional branches with dieback. Gaps in canopy associated with previous failures.	10+	B3	10.6	E	GREEN
T177#	Common alder	10	400	5	4	4	3	EM	Good	Fair	East of stream. Balanced form. Slightly reduced crown density but healthy overall.	10+	B1	4.8	E	GREEN

Tree Ref. No.	Species	Height (m)	DBH (mm)	Canopy spread (m)				Age class	Struc cond.	Physiol cond.	General Observations and Comments	ERC	Category grading	RPA radius (m)	AIA	RAG status
				N	E	S	W									
T178#	Common ash	16	630	5	5	5	5	M	Good	Fair	East side of stream. Large tree, previous storm damage and reasonably balanced canopy reestablishment. Reduced vigour, short internodal growth. No obvious signs of Chalara ash dieback, limited visibility due to natural light conditions; pathogen likely present.	10+	C1	7.6	E	GREEN
T179#	Common alder	14	800	7	5	5	5	M	Fair	Good	Mature tree east of stream. Reduced structural condition; branch failures in upper canopy with deadwood to c. 150 mm diameter, posing low risk. Hanging branches, low risk. Canopy retrenchment with increased lower canopy vigour.	20+	B3	9.6	E	GREEN
T180	Hawthorn	6	290	2	2	3	2	SM	Good	Good	Unremarkable field boundary tree.	10+	C1	3.5	E	GREEN
T181#	Hawthorn	5	210	2	1	3	4	EM	Good	Good	Unremarkable tree. North of stream.	10+	C1	2.5	E	GREEN
T182	Common ash	16	820	6	5	9	6	M	Good	Fair	Large tree east of stream. Chalara ash dieback observed. Canopy density reduced. Occasional small diameter dead branches, posing low risk. Small	10+	C1	9.8	E	GREEN

Tree Ref. No.	Species	Height (m)	DBH (mm)	Canopy spread (m)				Age class	Struc cond.	Physiol cond.	General Observations and Comments	ERC	Category grading	RPA radius (m)	AIA	RAG status
				N	E	S	W									
											branch cavities, potential habitat tree. Tree liable to shed limbs due to age and condition.					
T183	Common ash	8	550	5	5	2	2	EM	Fair	Fair	Poor form suppressed south. Limb failure south leaving moderate sized cavity; remaining leader above cavity contains deadwood. Short internodal growth suggesting stress. No clear symptoms of Chalara ash dieback observed, but likely to be present. North of stream.	10+	C1	6.6	E	GREEN
T184#	Common alder	12	383	4	6	6	3	EM	Good	Good	Tri stemmed on river bank. Balanced form. Healthy. One of only a few larger trees in vicinity.	10+	B1	4.6	N	GREEN
T185#	Common alder	10	750	4	6	6	4	M	Good	Good	East of stream in hedge. Upper stem failed previously, decay and small cavities at point of failure, full extent unknown. Habitat potential. Remaining canopy healthy. Unbalanced form.	10+	B1	9.0	E	GREEN
T186	Common alder	12	766	4	4	4	6	EM	Good	Good	Multi stemmed tree, north of stream. Healthy. No significant defects observed.	10+	B1	9.2	E	GREEN

Tree Ref. No.	Species	Height (m)	DBH (mm)	Canopy spread (m)				Age class	Struc cond.	Physiol cond.	General Observations and Comments	ERC	Category grading	RPA radius (m)	AIA	RAG status
				N	E	S	W									
T187#	Hawthorn	5	252	1	2	3	3	SM	Good	Good	Unremarkable field boundary tree.	10+	C1	3.0	E	GREEN
T188	Common ash	18	850	6	5	8	6	M	Good	Fair	Large tree south of stream. Appears in better health than neighbouring ash but displaying short inter growth. Lower twigs dead. No discernible Chalara ash dieback symptoms observed from ground level, limited visibility due to natural light conditions. Reasonably balanced form slightly suppressed east. May shed limbs given age and potential for Chalara pathogen.	10+	B1	10.2	E	GREEN
T189#	Common alder	10	620	6	7	6	6	M	Unknown	Good	East of stream. Long lower limb extending from base of trunk to SE. Ivy clad, may be obscuring defects. Dense basal epicormic growth. Healthy.	10+	B1	7.4	N	GREEN
T190#	Common ash	18	1000	8	8	8	7	M	Fair	Poor	Very large tree south of stream. Poor health, likely due to Chalara ash dieback; limited visibility from ground level. Occasional limbs with longitudinal cracks towards base, habitat potential.	10+	C1	12.0	E	GREEN

Tree Ref. No.	Species	Height (m)	DBH (mm)	Canopy spread (m)				Age class	Struc cond.	Physiol cond.	General Observations and Comments	ERC	Category grading	RPA radius (m)	AIA	RAG status
				N	E	S	W									
											Balanced form. Likely to shed limbs given age and condition.					
T191	Silver birch	10	230	3	3	3	3	SM	Good	Good	Rounded, balanced canopy. Healthy. Kink in lower stem, stem leans north east. Third party tree.	10+	C1	2.8	N	GREEN
T192#	Common alder	8	900	6	7	6	5	M	Fair	Good	South of stream. Storm damaged. Hollow, decaying stem in poor structural condition sat atop large diameter bole; decaying section appears to be resting in lower canopy east. Numerous lower branches arising from interface between bole and stem around circumference of tree establishing healthy lower canopy. Habitat potential in hollow stem.	20+	B3	10.8	E	GREEN
T193#	Sycamore	17	980	5	7	7	5	M	Good	Good	Large open grown riverside tree. Prominent in locality. Moderate amount of dead twigs and occasional small diameter deadwood. Limited access, riverbank. Healthy tree.	10+	A1	11.8	N	GREEN

Tree Ref. No.	Species	Height (m)	DBH (mm)	Canopy spread (m)				Age class	Struc cond.	Physiol cond.	General Observations and Comments	ERC	Category grading	RPA radius (m)	AIA	RAG status
				N	E	S	W									
T194#	Common alder	10	750	5	8	5	6	M	Good	Good	East of stream. Stem lean east. Burring around lower trunk; DBH estimated above burring. Dieback in upper and outer canopy east, with small diameter deadwood; posing low risk. Remaining canopy healthy. Basal wound west, no significant decay, small cavity; occluding.	10+	B1	9.0	E	GREEN
T195#	Elm sp.	7	200	3	3	3	3	SM	Good	Good	East of stream. Healthy.	10+	C1	2.4	N	GREEN
T196#	Common alder	8	690	4	3	4	4	M	Fair	Good	South of stream. Occasional branches with dieback, predominantly healthy canopy. Large cavity in stem to north; smaller cavity in same stem c. 1 m above, above branch bifurcation. Entire limb appears hollow; habitat potential.	10+	C1	8.3	E	GREEN
T197#	Common ash	9	700	6	6	7	3	M	Fair	Poor	Large tree at water's edge, leaning east towards river. Severe decline, Chalara ash dieback. Low hanging canopy east over water; higher over land west (recorded height).	10+	C1	8.4	N	GREEN

Tree Ref. No.	Species	Height (m)	DBH (mm)	Canopy spread (m)				Age class	Struc cond.	Physiol cond.	General Observations and Comments	ERC	Category grading	RPA radius (m)	AIA	RAG status
				N	E	S	W									
T198#	Common alder	8	125	4	5	5	5	SM	Good	Good	Multi stemmed tree, north bank of stream. Healthy, unremarkable.	10+	C1	1.5	E	GREEN
T199#	Common alder	10	449	4	5	5	5	SM	Good	Good	Multi stemmed tree, south bank of stream. One larger dead stem to c. 10 m high; large cavity towards base, further cavity at c. 5 m. Smaller stems growing across stream to north, healthy. Unremarkable tree. Habitat potential.	10+	C1	5.4	E	GREEN
T200#	Common ash	10	725	5	5	6	6	EM	Unknown	Fair	Twin stemmed tree, dense ivy cover between 2-7 m, limited visibility. Appears to have been storm damaged in past, with stem failure(s) and subsequent canopy reestablishment. Chalara ash dieback observed.	10+	C1	8.7	E	GREEN
T201	Common alder	7	596	3	5	5	2	M	Fair	Good	Previously storm damaged tree, north of stream. Hollow in main stem, occluding well; appears to be three stems fusing into one. Healthy canopy reestablishment. No significant veteran features. Middle stem weighted to south wounded. No significant decay observed.	10+	C1	7.1	E	GREEN

Tree Ref. No.	Species	Height (m)	DBH (mm)	Canopy spread (m)				Age class	Struc cond.	Physiol cond.	General Observations and Comments	ERC	Category grading	RPA radius (m)	AIA	RAG status
				N	E	S	W									
T202#	Sycamore	7	164	2	2	2	1	Y	Good	Good	Unremarkable, self-seeded tree. South bank of stream.	10+	C1	2.0	N	GREEN
T203#	Common ash	6	140	3	3	3	3	SM	Good	Fair	South bank of stream. Chalara ash dieback. Unremarkable.	10+	C1	1.7	N	GREEN
T204	Common ash	16#	660	3	7	8	6	EM	Good	Fair	Twin stemmed tree north of stream at confluence with river. Short twig internodes indicating reduced vigour and growth rate. No obvious signs of Chalara ash dieback, limited visibility due to sunlight; pathogen likely present. Asymmetric form, crown reduced north, power lines.	10+	B1	7.9	E	GREEN
T205#	Goat willow	4	151	3	2	3	3	Y	Good	Good	Self-seeded. South bank of stream. Unremarkable.	10+	C1	1.8	N	GREEN