

Summer Ash Dieback Disease survey at Y Plas, Machynlleth, Powys. SY20 8ER.

Dr. Richard Wilson

Chartered Arboriculturist & Registered Consultant PhD, Tech. Cert. (RFS), Prof. Dip. Arb (RFS), RC. Arbor A., MICFor







Wilson Tree Surveys 'Glasfryn', Croeslan, Llandysul, Ceredigion. SA44 4SJ 01239 851999 07535 105829 richard@wilsontreesurveys.co.uk



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1. Introduction

1.1 Client: Machynlleth Town Council, Y Plas, Machynlleth, Powys. SY20 8ER.

1.2 Instruction: The client requires a summer Ash Dieback Disease assessment of the ash trees in the grounds of Y Plas together with management recommendations.

1.3 Regulatory framework: This survey has been carried out according to the principles described in Hazards from trees: a general guide (Lonsdale, 2000), HSE SIM 01/2007/05 (HSE, 2007, amended 2013), Common-sense risk management of trees (National Tree Safety Group, 2011) and the Ash Dieback Toolkit (Stokes & Jones, 2019).

1.4 Techniques: Visual Tree Assessment (VTA; Lonsdale, 1999), desk-based enquiries (legal status, geological survey, mapping), THREATS analysis (Forbes-Laird, 2010).

1.5 Risk assessment method: THREATS (Tree Hazard Evaluation And Treatment System; Forbes-Laird, 2010) provides a framework for rational decision-making relating to the remediation of safety-related tree defects. Visual Tree Assessment (Lonsdale, 2000) is used to assess the condition of a subject tree. The THREATS method then combines three scores to provide an overall Risk Evaluation score:

Failure Score (FS, representing the likelihood of failure).

Target Score (TS, representing the sensitivity, vulnerability and/or value of the people and property that may be affected). Impact Score (IS, representing the likely severity of consequences arising from the failure).

Risk Evaluation = FS x TS x IS

The Risk Evaluation indicates the appropriate Threat Category to apply, from 'Insignificant' to 'Extreme'. Each category directs action to be taken within a certain timeframe. For example, a defect giving rise to a 'Significant' Threat Category rating should be remedied within four weeks, while a 'Slight' Threat may be responded to within 2 years, along with annual re-inspection.

While the FS and IS scores relate mainly to properties of the tree or tree part themselves, the TS relates to the environment in which the tree stands which can change as human use of the space alters. The risk assessment is therefore based on a 'snapshot in time' representing the best endeavours of the inspector to judge current use of the space using cues visible at the time of survey. Any changes to target occupancy will alter the risk assessment and indicate a different set of response measures.

It follows that a valid method of responding to any actions highlighted could be to manage target occupancy, for example by restricting the movement of people into high-risk areas. Actions of this nature are for the property manager to consider and may be included in this report merely to suggest an alternative course of action.

In particular, signage, play equipment and observations made during the inspection suggest that children make free use of the site. Children and young adults do not perceive risk in the same manner as older adults and this has prompted the use of increased TS values, as directed by the THREATS guidance notes.

Further definition of terms is given in the key to Section 4.

As noted below at paragraph 2.12, the site is exposed to south-westerly winds which can be expected to result in the loss of deadwood, weak and damaged limbs during periods of high winds (Force 6 and above) or winds that rapidly change direction (such as may be associated with a sudden squall or storm). Target Zone occupancy in these conditions should therefore be limited to only that which may be considered absolutely essential. For example, allowing children to play under the trees in these conditions might be unadvisable.

1.6 Limitations: 1. The contents are intended for the sole use of the client. No liability is accepted for their use by any other parties to advance an argument or claim (including legal or financial) without prior consent. 2. No liability is accepted for defects hidden from view by soil, vegetation or other obstacles to access. 3. Formal assessment of topography, drainage, service conduits, & soil conditions have not been made and are beyond the scope of this report. 4. Specific laboratory investigations of soil properties (plasticity index, moisture content, soil suction pressure) have not been made and are beyond the scope of this report. 5. This report considers only the potential for the tree to cause damage or injury under normally expected weather conditions. No liability for damage arising from any other source or mechanism is accepted. 6. This report will be deemed to be invalid if a history of vegetation related subsidence damage in this or surrounding properties exists but has not been made known to the surveyor. 7. This report considers risk mitigation measures, as opposed to risk elimination. Thus, if the tree is retained, a level of risk will remain. 8. Site plans: The positions of trees with respect to buildings and other site features are in all cases approximate and should be confirmed by on-site inspection. The plans contained in this report are drawn by hand on a commercially available block plan and are not of sufficient accuracy to permit detailed site planning or setting out. 9. It is understood that any risks associated with these limitations are accepted by the client.



1.7 Weather conditions: 16/09/2022: broken cloud, sunny spells, warm, wind force 1-2.

1.8 Access conditions: Access was generally un-hindered but many trees were obscured by dense ivy or holly resulting in partial inspections.

1.9 Validity: Plants are biological organisms & change with time. Assessment remains valid for 12 months from the date of inspection, or until a major storm (Wind Force 6 +) is experienced.

1.10 Statutory tree protections: The site is not subject to any Tree Preservation Orders but does lie within the Machynlleth Conservation Area (Planning Support Services, Powys County Council [PCC], by e-mail).

Conservation Area regulations apply protection to all trees >75mm diameter at 1.5m above ground but should not be seen as a 'blanket ban' on all tree work. Tree work may proceed under the following circumstances:

- Normal arboricultural maintenance work to preserve, enhance or mitigate nuisance aspects of the tree's habit carried out to professional standards with PCC agreement.
- Elimination of hazards presented by dead or damaged trees or limbs to the extent required to mitigate the risk where the tree is not immediately dangerous. Significant harm must be both foreseeable and be expected to arise within six weeks. At least 5-days' written notice must be given to PCC (also known as a 'Section 14 notice').
- Elimination of immediately dangerous hazards presented by dead or damaged trees or limbs ONLY to the extent required to mitigate the risk.
- Removal of dead branches.
- A number of other specific circumstances that don't apply here but which include grant of full planning permission, compliance with Acts of Parliament, activities of Statutory Undertakers (for example, utility providers), horticultural maintenance of trees for fruit production and so on.

In the context of the THREATS risk assessment system used in this report, Emergency (Urgency code 'E') work may be carried out to trees presenting serious and immediate risks to people and property ONLY so far as is NECESSARY to abate the risk without consulting PCC. However, they must be advised as soon as is practically possible afterwards and adequate evidence must be presented to justify taking this course of action.

Trees requiring a Seven-day response (Urgency code '7D') or a Four-week response (Urgency code '4W'; i.e. sooner than the normal six-week Conservation Area application period but not requiring emergency intervention) may proceed under a 'Five-day' (Section 14) Notice. The Notice must be made in writing to PCC (an e-mail is often acceptable but I suggest making direct contact with a tree officer to alert them to your proposals) and include sufficient evidence to justify your proposal. The Authority must then respond within five days. After five days, you may proceed with works ONLY so far as is NECESSARY to abate the risk.

Permission to carry out work to trees in all other response categories ('13W', 'A', '3Y' and '3/5Y'; see page 12 for definitions) must be subject to the normal method of seeking approval. PCC must be notified in writing of your intentions. This is known as a 'Section 211 Notice'. The Authority has six weeks to consider your Notice during which time it can decide whether to protect the trees with a TPO. Under normal circumstances, the Authority will respond with a Consent or a Refusal, or it may ask for certain conditions to be met. If the Authority does not respond, then after six weeks you may deem that consent has been given. An application may be submitted electronically via the Planning Portal system at https://www.planningportal.co.uk/wales_en/.

Forestry Act (1967)

The provisions of the Forestry Act (1967) apply to the *felling* of healthy living trees, and do not apply to "lopping, topping, pruning and pollarding". A specific exemption applies to the felling of trees only sufficient for the abatement of risk or nuisance where these hazards are 'REAL' rather than imagined or 'PERCEIVED'. (The abatement of nuisance by trees (e.g. leaf litter) is not sufficient justification). This is necessarily a rather blurred distinction, however the identification of risks using the methodology described in this report may be considered to constitute justifiable, hard evidence. A Felling Licence is unlikely to be required to carry out the works specified in this report but I advise you to consult NRW prior to carrying out any tree works.

1.11 Environmental protections:

Wildlife and Countryside Act (1981): All birds, their nests and eggs are protected in law. It is an offence to intentionally damage or destroy the nest of any wild bird while it is in use or being built. Some birds (such as "Schedule 1" birds) have a higher level of protection, which extends to disturbance of the bird. Tree work should be conducted so as to avoid disturbance of birds, their nests or their eggs,

European Protected Species: Some animal species have a higher level of protection under European Protected Species (EPS) regulations. These include otter, dormouse and all species of bat which are wild in the UK. It is an offence to harm, injure, kill or



disturb these species, or damage or destroy their "resting places", without a valid EPS licence. This means, for example, that damage to a bat roost (except under a valid EPS licence) is an offence, even if it is accidental / incidental, and even if no bats are present at the time.

Protected sites: Tree work and other related work such as track construction and timber extraction may be affected by conservation designations (e.g. Sites of Special Scientific Interest, Special Areas of Conservation, Special Protection Areas etc.). In some cases, a Consent must be obtained from the Competent Authority (usually Natural Resources Wales).

Contractual constraints: Work on trees and hedgerows may be constrained by contractual arrangements, most notably participation in agricultural, woodland and land stewardship grant schemes. If tree or hedgerow work contravenes scheme rules, individual contractual arrangements, or causes cross-compliance issues, it could cause the landowner to incur serious financial penalties and / or delayed payments. On land where grant is claimed, it is advisable to check with the landowner or their agent before undertaking tree work. Private contracts (including terms of leaseholds and tenancy arrangements) should also be considered before carrying out tree work.

1.12 Situation: Y Plas occupies a level site at an elevation of 10-20m in a semi-rural setting on the outskirts of Machynlleth. The site lies in the SW – NW aligned valley of the River Dyfi approximately 16km inland from the coast. Locally, ground rises steeply out of the valley to the SE and NW reaching summits of approximately 250m elevation (OS Maps, 2022). Surface deposits consist of alluvial gravels over mudstones and siltstones (BGS, 2022). Borehole scan SH705W12 at the site of the nearby leisure centre revealed the presence of alluvial gravels with brown clays to a depth of at least 3m. Soil type is described as a freely draining acid loam over rock of low fertility (LandlS, 2022). Trees have grown well on site, in some cases exceptionally so. Growing conditions are therefore good. Some increase in wind exposure might be expected given the west coast location however, trees were generally of reasonable symmetrical form suggesting that wind exposure is not a particular factor at this site. Wind hazard calculations based on FCIN230 (Quine & White, 1993) suggest a general Hazard Class of 2, i.e. generally low exposure.

1.13 References:

British Geological Survey (2022). Geology of Britain Viewer 1:50,000. BGS, Keyworth, Nottingham. http://mapapps.bgs.ac.uk/geologyofbritain/home.html

British Standards Institute (2010). BS3998:2010 – Standards for Tree Work. BSI Publications, London.

Forbes-Laird, J. (2010). THREATS tree hazard assessment system. <u>http://www.flac.uk.com/wp-</u>content/uploads/2010/07/THREATS-GN-June-2010.pdf

Forbes-Laird, J. (2018). Recognition of Ancient, Veteran & Notable Trees. Accessed at: <u>https://www.flac.uk.com/wp-</u>content/uploads/2018/08/RAVEN.pdf

Health and Safety Executive (2007). HSE SIM 01/2007/05.

LandIS (Land information system; Soilscape viewer). Cranfield University. http://www.landis.org.uk/index.cfm

Lonsdale, D. (1999). Principles of Tree Hazard Assessment and Management. The Stationery Office, London.

Lonsdale, D. (2000). Hazards from Trees: a general guide. The Forestry Commission, Edinburgh.

National Tree Safety Group (2011). Common sense risk management of trees. The Forestry Commission, Edinburgh.

Ordnance Survey (2022). OS Maps service at https://www.ordnancesurvey.co.uk/osmaps/. Ordnance Survey, Southampton.

Stokes. J. & Jones, G. (2019). Ash Dieback: An Action Plan Toolkit. Tree Council Publication. Tree Council, London.







Y Plas, Machynlleth Site plan Pt 1.

Trees 783-800 & 841 – 845, 925-929 Groups G001 - G003

Map supplier licence number shown on Part 5





Y Plas, Machynlleth Site plan Pt 2.

Trees 846-854, 918 – 924, 930-932 & 943 Groups G004 – G009 & G013 – G014





Y Plas, Machynlleth Site plan Pt 3.

Trees 855-872 & 933 Groups G010, G015-017





Y Plas, Machynlleth Site plan Pt 4. Trees 876-888, 909, 935-937 &1001 Group G018 Woodland WG001





Y Plas, Machynlleth Site plan Pt 5.

Trees 873 - 875, 890 - 892, 934, 938 & 947 Groups G011 & G012





Site plan Pt 6.

Trees 893 – 917 (excluding 909), 940-946 (excluding 943), 1002-1005. Woodland WG002 & WG003



3 Tree Assessment

In the following schedule, figures in *italics* are estimated.

Terms used in the schedule are:

Age class – approximate age of the tree. Y - Young, EM - Early mature, M – mature, OM – Over mature, V - Veteran Ht – height in metres.

Stem dia. – Stem diameter in mm, measured at 1.5m above ground.

FS, TS, IS – aspects of THREATS risk assessment calculation: FS – Failure score, TS – Target score, IS – Impact score Hazard rating – the product of FS x TS x IS

Threat category – category assigned to rating under the THREATS system. Category 1 – Insignificant, 2 – Minimal, 3 – Slight, 4 – Moderate, 5 – Significant, 6 – Serious, 7 – Extreme.

Urgency code - code assigned to category under the THREATS system. E – Emergency; 7D – Respond within seven days; 4W – Respond within four weeks; 13W – Respond within thirteen weeks; A – Schedule work within 2 years, re-inspect annually; 3Y – Schedule work as required, re-inspect in 3 years; 3/5Y – Schedule work as required, re-inspect in 5 years or 3 years if target occupancy includes children.

Further information is given at Section 2.5 or for a full explanation of the THREATS hazard evaluation system (Forbes-Laird, 2010) please refer to the reference given in section 2.10, above.



Ref. No.	Species	Age Class	Ht (m)	Stem dia. (mm)	Phys. Cond. G-F-P-D	Observations	FS	TS	IS	Hazard Rating	Threat Category	Recommendations (Future management including reinspection)	Urgency code
872	Common ash	М	15	792	Ρ	Single-stemmed at ground level. Normal hammer taps. No fungal fruiting bodies observed. Stem, principal unions and primary limbs appear to be in reasonable structural condition. Ash Dieback Disease. Frequent significant deadwood. Prolific epicormic shoots throughout primary structure. Target: shrubbery. Summer Ash Dieback Survey: Symptoms have improved since last inspection. No symptoms consistent with Ash Dieback Disease observed.	2	15	1	30	1	Re-inspect in 3 years. Repeat Summer Ash Dieback Disease inspection June- September 2023.	3/5Y
876	Common ash	М	19	520	Ρ	Single-stemmed at ground level. Normal hammer taps. No fungal fruiting bodies observed. Stem, principal unions and primary limbs appear to be in reasonable structural condition. Crown very heavily biased SW. Ash Dieback Disease Class 2. Frequent significant deadwood. Summer Ash Dieback Survey: Symptoms observed consistent with Ash Dieback Disease Class 2. Prolific minor deadwood, frequent significant deadwood. Significant epicormic growth on primary limbs throughout crown. Disease does not appear to have progressed significantly since last inspection. Tree death likely within 2-3 years, very likely within 5 years, certain within 10 years.	8	20	1	160	3	Remove deadwood >25mm diameter within 2 years. Recommendation first made 2021 - requires completion within next year. Re-inspect annually. Repeat Summer Ash Dieback Disease inspection June-September 2023.	А
913	Common ash	Σ	25	339	Ρ	Single-stemmed at ground level. No fungal fruiting bodies observed. Sounding mallet strikes returned abnormal 'resonating' sound. Regions of exposed, desiccated wood at 1.5 - 2m with good callus formation. Height / diameter ratio = 73.7. Companion shelter within WG003. Stem inclined 10° E, away from footpath. Significant deadwood and early development of epicormic shoots suggesting Ash Dieback Disease Class 1. Informal paths through WG003 in target zone - presence of children likely. Summer Ash Dieback Survey: sibgle element of minor deadwood on ground at base of tree. Canopies of adjacent trees closed in and generally obscured this tree from view. Visible parts of crown appear to be in fair condition. No clear symptoms of Ash Dieback Disease observed.	2	20	4	160	3	No action required at time of survey. Re- inspect annually. Repeat Summer Ash Dieback Disease inspection April-May 2023.	A
934	Common ash	М	21.5	455	Ρ	Single-stemmed at ground level. Normal hammer taps. No fungal fruiting bodies observed. Stem, principal unions and primary limbs appear to be in reasonable structural condition. Crown heavily biased N. Ash Dieback Disease Class 2. Frequent significant deadwood. Significant epicormic shoot development throughout crown. Loss of fine branching structure. Target: car park. Summer Ash Dieback Survey: Symptoms observed consistent with Ash Dieback Disease Class 2. Prolific minor deadwood, frequent significant deadwood. Condition appears to be similar to that recorded at last inspection. Tree death likely within 2-3 years, very likely within 5 years, certain within 10 years.	8	25	1	200	3	Remove deadwood >25mm diameter within 2 years. Recommendation first made 2021 - requires completion within next year. Re-inspect annually. Repeat Summer Ash Dieback Disease inspection June-September 2023.	A
935	Common ash	М	20	620	Ρ	Single-stemmed at ground level. Normal hammer taps. No fungal fruiting bodies observed. Stem, principal unions and primary limbs appear to be in reasonable structural condition. Crown heavily biased NW. Ash Dieback Disease Class 1. Infrequent significant deadwood. Major deadwood x1 at 6m E. Moderate epicormic shoot development in upper crown. Target: footpath. Summer Ash Dieback Survey: Symptoms observed consistent with Ash Dieback Disease Class 2. Prolific minor deadwood, frequent significant deadwood. Disease does not appear to have progressed significantly since last inspection. Tree death likely within 2-3 years, very likely within 5 years, certain within 10 years.	8	20	1	160	3	Remove deadwood >25mm diameter within 2 years. Recommendation first made 2021 - requires completion within next year. Re-inspect annually. Repeat Summer Ash Dieback Disease inspection June-September 2022.	A



Ref. No.	Species	Age Class	Ht (m)	Stem dia. (mm)	Phys. Cond. G-F-P-D	Observations	FS	TS	IS	Hazard Rating	Threat Category	Recommendations (Future management including reinspection)	Urgency code
943	Common ash	М	17	681	Ρ	Single-stemmed at ground level. Normal hammer taps. No fungal fruiting bodies observed. Stem appears to be in reasonable structural condition. Pollarded at 6m. Prolific shoot development. Foliage healthy. Summer Ash Dieback Survey: no symptoms observed consistent with Ash Dieback Disease. Y Plas and footpath to car park in Target Zone.	0.8	20	1	16	1	No action required at time of survey. Re- inspect in 3 years. Repeat Summer Ash Dieback Disease inspection June- September 2023.	3/5Y
944	Common ash	Μ	22	510	F	Single-stemmed at ground level. Normal hammer taps. No fungal fruiting bodies observed. Very dense ivy obscured stem and principal unions to 10m. Partial inspection only. Stem inclined 10° E. Crown biased E. Crown reduced in past. Regrowth well established and due for re-cutting. No symptoms of Ash Dieback Disease noted at this survey. Children playing in parking area. Summer Ash Dieback Survey: Symptoms consistent with Ash Dieback Disease Class 1-2 observed. Frequent peripheral and apical minor deadwood present. Condition appears to have become established since last inspection.	2	20	4	160	3	Reduce crown by 30% (by volume) within 2 years. Recommendation first made 2021 - requires completion within next year. Re-inspect annually. Repeat Summer Ash Dieback Disease inspection June-September 2023.	А
1001	Common ash	М	18	420	Ρ	Single-stemmed at ground level. Exceptionally dense ivy obscured stem and principal unions to 8m. Partial inspection only. Visible parts of stem, principal unions and primary limbs appear to be in reasonable structural condition. Crown heavily biased N. Symptoms observed consistent with Ash Dieback Disease Class 1. Infrequent minor deadwood. Tree death likely within 5 years, very likely within 7-8 years, certain within 10 years.	0.8	20	1	16	1	No action required at time of survey. Re- inspect in 3 years. Repeat Summer Ash Dieback Disease inspection June- September 2023.	3/5Y
1006	Common ash	М	20	350	Ρ	Single-stemmed at ground level. Visible parts of stem and principal unions appear to be in reasonable structural condition. Informal paths through WG003 in target zone - presence of children likely. Deadwood projects over busy car park to W. Symptoms observed consistent with Ash Dieback Disease Class 3. Frequent significant deadwood. Tree death very likely within 1 year, certain within 5 years.	8	25	4	800	4	Fell tree within 13 weeks.	13W
1007	Common ash	М	18	225	Ρ	Single-stemmed at ground level. Very dense ivy obscured stem to 4m. Partial inspection only. Visible parts of stem and principal unions appear to be in reasonable structural condition. Informal paths through WG003 in target zone - presence of children likely. Symptoms observed consistent with Ash Dieback Disease Class 3. Frequent significant deadwood. Tree death very likely within 1 year, certain within 5 years.	8	25	4	800	4	Fell tree within 13 weeks.	13W
1008	Common ash	М	12	150	F	Single-stemmed at ground level. Visible parts of stem and principal unions appear to be in reasonable structural condition. Informal paths through WG001 in target zone - presence of children likely. No ymptoms observed consistent with Ash Dieback Disease.	0.8	25	1	20	1	No action required at time of survey. Re- inspect annually. Repeat Summer Ash Dieback Disease inspection April-May 2023.	3/5Y
G010	Common ash x8	EM	12	200	р	Group of trees dispersed through copse and varying from single-stemmed to multi-stemmed specimens. Four plants adjacent to clubhouse arise from heavily decayed remains of a stump. Stem, principal unions and primary limbs generally appear to be in reasonable structural condition. Ash Dieback Disease present ranging from Class 1-2. Specimens to E of group spread over football clubhouse roof, minor deadwood has developed since last inspection. Future development of larger and more prolific weak deadwood foreseeable. Summer Ash Dieback Survey: Presence of Ash Dieback Disease confirmed. Generally Class 1-2. Condition appears to have improved slightly since last inspection. Stems arising from decayed stump and extending over footpath to N are dead.	8	20	1	160	3	Cut E crowns back to boundary within 2 years. Recommendation first made 2021 requires completion within next year. Re- inspect annually. Remove ash stems extending N over footpath. Repeat Summer Ash Dieback Disease inspection June-September 2023.	A



Ref. No.	Species	Age Class	Ht (m)	Stem dia. (mm)	Phys. Cond. G-F-P-D	Observations	FS	TS	IS	Hazard Rating	Threat Category	Recommendations (Future management including reinspection)	Urgency code
WG001	Common ash, Common beech, Pedunculate oak, Nootka cypress, European larch, Sycamore, Douglas fir.	М	21	400	Good	Area criss-crossed by footpaths and with several picnic glades. Children likely - Target Score increased by one category. Significant deadwood in many trees which can be shed at any time but more especially in adverse weather. The loss of occaisional larger limbs can also be expected.	8	25	1	200	3	Remove deadwood >25mm diameter within 2 years. Re-inspect annually. Repeat Summer Ash Dieback Disease inspection June-September 2023.	А
WG002	Common beech, Common ash, Nootka cypress, Sycamore, Red oak.	М	19	360	Good	Area criss-crossed by footpaths but these appear less well-used than in WG001 and are blind- ended at the car park fence. Children may enter area but lower numbers to those in WG001 expected - Target Score increased by one category. Significant deadwood in many trees which can be shed at any time but more especially in adverse weather. The loss of occaisional larger limbs can also be expected. Dense understorey of holly deters entry but is not currently causing arboricultural problems.	8	20	1	160	3	Remove deadwood >25mm diameter within 2 years. Re-inspect annually. Repeat Summer Ash Dieback Disease inspection June-September 2023.	A

The following trees have been felled and are no longer recorded on the site plan:

Ref. No. Specie	Observations s
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853	Common ash	Felled
863	Common ash	Felled
881	Common ash	Felled
897	Common ash	Felled
938	Common ash	Felled
1002	Common ash	Felled
1003	Common ash	Felled
1004	Common ash	Felled
1005	Common ash	Felled



4 Summary of actions

Ref. No.	Species	Recommendations (Future management including reinspection)	Urgency code
1006	Common ash	Fell tree within 13 weeks.	13W
1007	Common ash	Fell tree within 13 weeks.	13W
876	Common ash	Remove deadwood >25mm diameter within 2 years. Recommendation first made 2021 - requires completion within next year. Re-inspect annually. Repeat Summer Ash Dieback Disease inspection June-September 2023.	А
913	Common ash	No action required at time of survey. Re-inspect annually. Repeat Summer Ash Dieback Disease inspection April-May 2023.	А
934	Common ash	Remove deadwood >25mm diameter within 2 years. Recommendation first made 2021 - requires completion within next year. Re-inspect annually. Repeat Summer Ash Dieback Disease inspection June-September 2023.	А
935	Common ash	Remove deadwood >25mm diameter within 2 years. Recommendation first made 2021 - requires completion within next year. Re-inspect annually. Repeat Summer Ash Dieback Disease inspection June-September 2022.	А
944	Common ash	Reduce crown by 30% (by volume) within 2 years. Recommendation first made 2021 - requires completion within next year. Re-inspect annually. Repeat Summer Ash Dieback Disease inspection June-September 2023.	А
G010	Common ash x8	Cut E crowns back to boundary within 2 years. Recommendation first made 2021 - requires completion within next year. Re-inspect annually. Remove ash stems extending N over footpath. Repeat Summer Ash Dieback Disease inspection June-September 2023.	А
WG001	Common ash, Common beech, Pedunculate oak, Nootka cypress, European larch, Sycamore, Douglas fir.	Remove deadwood >25mm diameter within 2 years. Re-inspect annually. Repeat Summer Ash Dieback Disease inspection June-September 2023.	A
WG002	Common beech, Common ash, Nootka cypress, Sycamore, Red oak.	Remove deadwood >25mm diameter within 2 years. Re-inspect annually. Repeat Summer Ash Dieback Disease inspection June-September 2023.	A
872	Common ash	Re-inspect in 3 years. Repeat Summer Ash Dieback Disease inspection June-September 2023.	3/5Y
943	Common ash	No action required at time of survey. Re-inspect in 3 years. Repeat Summer Ash Dieback Disease inspection June-September 2023.	3/5Y
1001	Common ash	No action required at time of survey. Re-inspect in 3 years. Repeat Summer Ash Dieback Disease inspection June-September 2023.	3/5Y
1008	Common ash	No action required at time of survey. Re-inspect annually. Repeat Summer Ash Dieback Disease inspection April-May 2023.	3/5Y



5 Glossary of terms.

Bole	The part of the tree where the stem (trunk) divides rapidly to produce several primary limbs (boughs). The bole is often wider than the stem that gives rise to it.
Buttresses	The flared part of the tree stem where it meets the ground and gives rise to the principal structural roots. Of primary importance to tree stability.
Canopy	In the context of this report, the canopy refers to the more peripheral foliage bearing parts of the tree.
Crown	The upper foliage-bearing parts of the tree comprising the boughs, branches, twigs and leaves.
Deadwood	Non-living branches. These can be fragile or robust depending on age and species. Deadwood may be minor (less than 25mm diameter), significant (25-100mm diameter), major (larger than 100mm diameter) or hanging (broken off but suspended above ground by other parts of the tree). The production of small to moderate amounts of deadwood is a normal part of tree behaviour.
Decay	Also known as 'wood decay'. The process by which wood decaying fungi degrade the structural and biochemical properties of wood. Decayed wood possesses altered material properties such that its ability to support the weight of the tree, withstand loading caused by wind, snow etc., and function physiologically is degraded. The process is progressive, frequently produces hollows, cavities and other outward signs visible to a trained observer and ultimately leads to failure of branches, unions, stems and whole trees. The timing of eventual failure depends on the amount of good wood present, the properties of the tree species and the aggressiveness of the decay fungus.
Dieback	A condition indicating poor tree health in which the foliage bearing parts of the tree die in a systematic manner. The condition points to systemic problems in various parts of the tree including the roots but can also indicate difficult or challenging environmental conditions. Old trees entering the over-mature or veteran phases of life can also develop dieback as a normal part of the ageing process. Dieback may affect the upper parts of the tree first (apical dieback) or the branch extremities (peripheral dieback).
Epicormic growth	Shoots and small branches deriving from activation of latent buds in the stem and primary limbs.
Fungal fruiting bodies	Many fungi colonise living and dead trees. Two subsets of these are of principal importance to safety assessment: 1. Mycorrhizal fungi (necessary for tree health and normal root function). 2. Decay fungi (responsible for destruction of woody part leaving affected trees weakened). The fungi colonise the woody parts of the tree and are generally invisible to the naked eye until they produce a fruiting body (the mushrooms, brackets and fronds that we are most familiar with). The presence of a fruiting body aids in identification of the fungal organism and can indicate the type, extent and future progression of the decay process.
Hammer taps:	The sound produced by striking the tree with a nylon sounding mallet can reveal the presence of decay hollows. Care must be taken to allow for wood properties (i.e. softwood vs hardwood, for example) bark thickness, delamination, stem morphology and the close proximity of other structures all of which can alter the sounds perceived. The production of abnormal hammer taps is not conclusive in its own right but can indicate the need for further investigations to assess tree stability.
Included bark union	The unions between various parts of the tree are of primary importance to safety assessment. The shape of the union itself and surrounding wood can indicate its ability to withstand loads exerted by wind or snow. A common defect in many trees is the presence of narrow unions with bark between the two parts that effectively prevents the wood fibres knitting together to form a stable union. These are known as included bark unions and are often accompanied by reaction wood lobes (indicating weakness) or natural braces that provide stability. The geometry of the affected parts is also important in determining stability. This can also be referred to as a 'bark inclusion'.



Primary limbs	The large principal limbs arising directly from the stem. Also known as 'boughs'.
Root plate	The region surrounding the stem of the tree occupied by the major structural roots. Roots extend well beyond the root plate, but this is the region that commonly lifts with the stem when trees fall.
Secondary limbs	Significant branches arising from the primary limbs.
Stem	Also known as the 'trunk'
Stilting	A decay process affecting the lower parts of the stem (the 'butt') and central regions of the root plate resulting in the tree being supported on the more peripheral buttresses and major structural roots, with a large void under the stem itself. The resulting form looks as if the tree is supported on stilts and resembles the Eiffel Tower. Commonly associated with the fungus Pseudoinonotus dryadeus (the 'Eiffel Tower fungus') on oak trees. The presence of this condition is not necessarily a cause for concern on its own but is an important finding to consider in the context of other features.
Tertiary limbs	Smaller branches arising from the secondary limbs.
Wound wood	Wood growth laid down by the tree in order to cover over ('occlude') a wound. The margins of the wound appear to roll inwards over the damaged wood forming a rounded margin. The process continues until the defect is entirely covered by new sound wood.