



## Tree Condition Report for Broughton & Dalby Parish Council

17<sup>th</sup> July 2023



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## Introduction

AT2 was instructed by the clerk of the parish council to prepare a tree condition report with reference to trees that are the responsibility of Broughton & Dalby Parish Council.

An owner of land on which a tree stands has a duty to take reasonable care for the safety of those who may come within the vicinity of a tree. Trees should be regularly inspected and action taken to address any obvious defects.

The report includes the following sections:

- Context of the report including:
  - Tree inspection methodology
  - Tree owners' obligations
  - Trees subject to statutory controls
  - Trees and wildlife
  - Implementation of tree works
- Recommendations
  - Key to presentation of recommendations
  - Location plan for trees
  - Table of recommendations
  - Photographs to accompany recommendations
- Appendices
  - A. Glossary of arboricultural terms
  - B. Common issues found in trees
  - C. Inspection regime
  - D. References/bibliography including recommended reading

Arboricultural terms that are included in the glossary in [appendix A](#) will be appear in **bold** on the first occasion of their use.

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## Methodology & limitations

The trees were inspected from ground level. The soil was not examined and no samples were taken for analysis. There has been no attempt to assess potential root damage or subsidence potential. The weather was bright with occasional heavy showers.

It would be impractical to inspect every tree in detail, especially in areas of woodland. Instead, the review checks for visible signs of decay or likely failure in the context of the value of any potential target and makes recommendations for appropriate action. Thus, a collapsed tree away from paths and buildings may require no action whilst a dead limb overhanging a path or property may present a significant hazard.

Trees are living organisms whose health and condition can change rapidly and no guarantee can be given as to the absolute safety or otherwise of any tree. Any recommendations given are intended

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to reduce the likelihood of tree failure but absolute safety is not a realistic goal; even apparently sound trees can fail, particularly during extreme weather – best practise recommends that trees are inspected every 18 months when they are alternately in and out of leaf<sup>9</sup>. Trees should also be checked for damage following extreme weather events (see [Appendix C](#)).

## Tree owners' obligations

Under civil law, land owners have a duty of care to ensure that their trees do not pose an unreasonable risk to people or property. Owners should take reasonable and proportionate action with trees that could reasonably be expected to present a hazard. Trees must not be allowed to cause an "actionable nuisance" which would include branches dislodging tiles or damaging brickwork. Falling leaves are not an actionable nuisance and nor is loss of light except in extreme cases. There is no legal "right to light" so owners have no obligation to prune the trees that may be shading a neighbouring property unless they are hazardous. Neighbours may, at their own expense, cut back trees to their boundary (subject to the statutory constraints of any Conservation areas or Tree Preservation Orders) and the tree owner may choose to allow neighbours to carry out tree surgery beyond their boundary, again, at the neighbours' expense.



## Trees subject to Statutory Control

Local Planning Authorities may assess trees as beneficial to the wider community in terms of their amenity value. They may protect such trees with a Tree Preservation Order (TPO). Work may still be permitted on protected trees but permission for the works must first be obtained from the LPA. Some areas are designated conservation areas. Before carrying out works on a tree in a conservation area notice must be given to the LPA. The LPA can either allow the works to proceed or impose a TPO.

The parish is not within a conservation area and there are no tree preservation orders on the parish council's trees so borough council permission will not be required to carry out tree works.

Where felling would produce more than five cubic metres of timber a felling license may be required from the Forestry Commission. However, this does not apply to trees growing in an orchard, garden, churchyard or public open space.

## Trees and Wildlife

Trees are hosts to nesting birds and animals. It is an offence under the Countryside and Wildlife Act to disturb any nesting bird or bat. Before carrying out any works it is important to ensure that there are no birds or bats in residence.

## Implementation of Tree Works

Tree work is skilled and potentially dangerous. Work should be carried out by trained and certificated contractors working to BS 3998: 2010 *Recommendations for Tree work*<sup>2</sup>.





## Recommendations

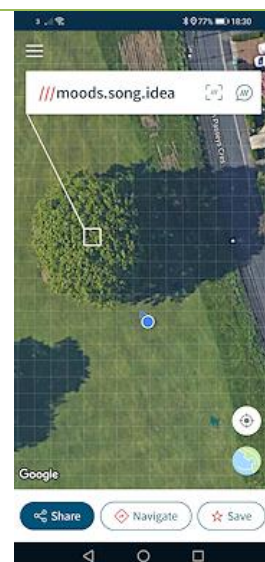
### Key to recommendations

This report contains a table of recommendations for tree work around the site. An explanation of the table columns is given below.

Column header	Explanation
<b>Ref.</b>	Sequential numbering for recommendations and accompanying photographs.
<b>Name/species</b>	Common and scientific names for each tree.
<b>Life stage</b>	<p><b>Young:</b> establishing, usually with good vitality but as yet of limited significance in the landscape.</p> <p><b>Semi-mature:</b> established, increasing in height and of increasing landscape significance.</p> <p><b>Early-mature:</b> established; approaching mature height with crown spreading.</p> <p><b>Mature:</b> fully established trees around the middle of their typical life expectancy; generally retaining good vitality and achieving full height but their crowns still spreading.</p> <p><b>Over-mature:</b> fully established trees toward the end of their typical life expectancy with declining vitality.</p>
<b>Condition</b>	<p>Physiological condition (Phy.)</p> <ul style="list-style-type: none"> <li>• <b>Good:</b> no significant faults noted</li> <li>• <b>Fair:</b> minor, non-critical symptoms commensurate with age of the tree</li> <li>• <b>Poor:</b> widespread signs of poor health</li> <li>• <b>Dead:</b> no longer functioning physiologically.</li> </ul> <p>Structural condition (Str.)</p> <ul style="list-style-type: none"> <li>• <b>Good:</b> no significant faults noted</li> <li>• <b>Fair:</b> minor, non-critical faults</li> <li>• <b>Poor:</b> more serious faults that may lead to failure</li> <li>• <b>Collapsing</b></li> </ul> <p>For explanation of comments see <a href="#">Appendix A – Glossary of arboricultural terms</a> and <a href="#">Appendix B – Common issues</a></p>

Column header	Explanation
<b>Recommendations</b>	<p>Recommendations for remedial tree work. Clicking on the  icon will take you to the accompanying photograph. Click on the  link to return.</p> <p>Recommendations may be <i>preliminary</i> where full inspection was not possible, for example, due to access restrictions or the presence of ivy.</p> <p>Some of the recommendations may be within the capabilities of the grounds maintenance team; e.g. removing tree stakes and ties and planting replacement trees.</p> <p>A glossary of arboricultural terms is included in <a href="#">appendix A</a>. All work to be carried out in accordance with BS 3998: 2010 <i>Recommendations for Tree work</i><sup>2</sup>.</p> <p>Reinspection frequency is 18 months unless otherwise stated. Interim inspections are recommended following extreme weather events.</p>
<b>Work priority</b>	<p>Priority is based on a combination of the following factors:</p> <ul style="list-style-type: none"> <li>• The likelihood of failure</li> <li>• The severity of injury or loss (based on size of part likely to fail)</li> <li>• The target rating (people/frequency/property/occupancy)</li> </ul> <p><b>Urgent:</b> usually unsafe trees or branches that should be cordoned off until the works can be carried out.</p> <p><b>Moderate:</b> trees with a significant fault – work to be completed within 6 months of the date of this report.</p> <p><b>Routine:</b> routine and preventative maintenance to be completed within <b>18</b> months of the date of this report.</p> <p><b>Aesthetic:</b> pruning recommendations for aesthetic improvements.</p>
<b>what3words location</b>	<p>Rather than using latitude and longitude or Ordnance Survey coordinates, what3words (w3w) is a free phone app that uses a three-word string to specify a GPS location. The tree positions have been recorded in this way – clicking on the link in the table of recommended works will display the tree’s position on the w3w webpage on your desktop or smartphone. Alternatively, entering (or speaking) the three words into the w3w app will display the same aerial view. Clicking “Navigate” will direct you to the precise location.</p> <p>This is an easy way for staff or contractors to accurately locate trees with recommended actions.</p>

Click [moods.song.idea](https://moods.song.idea) to see an example and click the globe icon to switch between map and satellite view.





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## Google Earth .kmz file

Accompanying this report is a **.kmz** (Keyhole Markup language Zipped) file that can be loaded into Google Earth on a desktop, laptop, tablet or a smartphone to show all the tree positions. Clicking on a tree will display a panel with details including the recommended work.



**Google Earth screenshots showing information loaded from a .kmz file.**

To load into Google Earth on a computer choose “Open...” from the “File” menu and pick the .kmz file or just double click on the .kmz file in a file explorer window. To load into Google Earth on a smartphone, click on the menu ☰ icon and select “Projects” > “Open” > “Import KML file”.

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Plan of tree locations



© Google Earth











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Queensway © Ordnance Survey

Table of recommended tree works





Ref.	Name/species	Life stage	Condition	Recommendations	Priority	W3W Location	
1	Oak Quercus robur	Early-mature	Physiological: Good, Structural: Good	Crown lift to 2.5m over footpath & grass.	Routine	<a href="#">clef.articulated.champions</a>	
2	Oak Quercus robur	Early-mature	Physiological: Good, Structural: Good	Crown lift to 2m over grass to facilitate mowing.	Routine	<a href="#">cities.jazz.blunders</a>	
3	Norway maple Acer platanoides	Early-mature	Physiological: Fair, Structural: Good	Remove deadwood >25mm in diameter and >1m in length.	Routine	<a href="#">validated.codes.arranger</a>	
4	Oak Quercus robur	Early-mature	Physiological: Good, Structural: Good	Crown lift to 2m over grass to facilitate mowing.	Routine	<a href="#">absent.blanking.hopes</a>	
5	Turkey oak Quercus cerris	Mature	Physiological: Dead, Structural: Collapsing	Remove and replant with replacement.	Moderate	<a href="#">winemaker.relax.chainsaw</a>	
6	Crabapple Malus sylvestris	Mature	Physiological: Good, Structural: Good	Crown lift to 1.5m.	Routine	<a href="#">tried.milk.redefined</a>	
7	Field maple Acer campestre	Mature	Physiological: Good, Structural: Good	Remove epicormic growth (see appendix B).	Routine	<a href="#">darts.unwraps.angel</a>	
8	Field maple Acer campestre	Mature	Physiological: Good, Structural: Good	Crown lift to 1.5m.	Routine	<a href="#">slung.thumbnail.shirtless</a>	
9	Young	Young	Physiological: Dead,	Remove and replant with replacement.	Routine	<a href="#">herring.pining.unheated</a>	
10	Crabapple Malus sylvestris	Mature	Physiological: Good, Structural: Good	Crown lift to 1.5m.	Routine	<a href="#">schooling.falters.relishes</a>	
11	Hornbeam Carpinus betulus	Mature	Physiological: Good, Structural: Good	Crown lift to 2m.	Routine	<a href="#">lushly.weekday.saddens</a>	
12	Silver birch Betula pendula	Mature	Physiological: Good, Structural: Good	Crown lift to 2m.	Routine	<a href="#">sheepish.dating.proofread</a>	
13	Young	Young	Physiological: Dead,	Remove and replant with replacement.	Routine	<a href="#">delusions.daydream.community</a>	
14	Walnut Juglans regia	Early-mature	Physiological: Good, Structural: Good	Crown lift to 2m.	Routine	<a href="#">iteration.handed.exposing</a>	
15	Apple Malus domestica	Mature	Physiological: Good, Structural: Collapsing	Remove split section.	Routine	<a href="#">stew.unpainted.successes</a>	

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Ref.	Name/species	Life stage	Condition	Recommendations	Priority	W3W Location	
16	Crabapple Malus sylvestris	Mature	Physiological: Good, Structural: Good	Remove epicormic growth (see appendix B).	Routine	<a href="#">neatly.contain.vase</a>	
17	Apple Malus domestica	Mature	Physiological: Good, Structural: Good	Remove epicormic growth (see appendix B).	Routine	<a href="#">switch.defectors.perky</a>	
18	Wildlife area		Needs management to avoid reverting to brambles.	Strim / brushcut annually.	Routine	<a href="#">stew.unpainted.successes</a>	
19	Ash Fraxinus excelsior	Mature	Physiological: Good, Structural: Fair Cavity at base.	Reinspect in 18 months.	Routine	<a href="#">adjust.split.anchovies</a>	
20	Cherry plum Prunus cerasifera cv. 'Pissardii'	Mature	Physiological: Good, Structural: Good	Remove epicormic growth (see appendix B). and crown lift to 2m.	Routine	<a href="#">shorts.interests.dreaming</a>	
21	Mixed group	Mature	Physiological: Good, Structural: Good	Crown lift to clear pavilion.	Routine	<a href="#">mills.plantings.pianists</a>	
22	Wildlife area		Needs management to avoid reverting to brambles.	Strim / brushcut annually. Consult with Notts Wildlife Trust.	Routine	<a href="#">eyebrows.grudges.ditching</a>	
23	Crack willow Salix fragilis	Mature	Physiological: Good, Structural: Fair	Option to re-pollard.	Routine	<a href="#">sideburns.owned.tactical</a>	
24	Cherry Prunus	Mature	Physiological: Good, Structural: Good	Remove epicormic growth (see appendix B).	Routine	<a href="#">meals.desktops.mushroom</a>	
25	Holm oak Quercus ilex	Mature	Physiological: Good, Structural: Good	Crown lift to 2m and target prune to clear building.	Routine	<a href="#">curly.invoices.cowboy</a>	
26	Walnut Juglans regia	Semi-mature	Physiological: Good, Structural: Good	Crown lift to 2m.	Routine	<a href="#">broadcast.bind.rainwater</a>	
27	Young	Young	Physiological: Good, Sycamore & ash saplings.	Remove before they outgrow their position.	Routine	<a href="#">partied.rolled.trout</a>	
28	Apple Malus domestica	Early-mature	Physiological: Good, Structural: Good	Remove epicormic growth (see appendix B).	Routine	<a href="#">contour.cropping.shatters</a>	
29	Mixed group	Mature	Physiological: Good, Structural: Good Apple, hawthorn.	Remove epicormic growth (see appendix B). and crown lift to 1.5m.	Routine	<a href="#">tempting.technical.jars</a>	
30	Lawson cypress Chamaecyparis lawsoniana	Mature	Physiological: Dead,	Remove.	Routine	<a href="#">preheated.teachers.hobby</a>	



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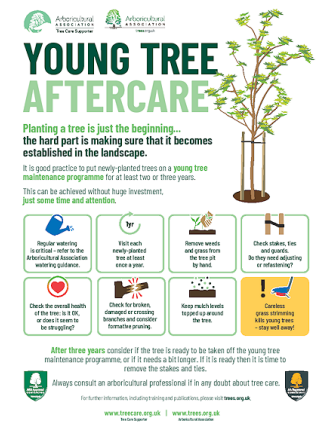
Ref.	Name/species	Life stage	Condition	Recommendations	Priority	W3W Location	
31	Ash Fraxinus excelsior	Mature	Physiological: Good, Structural: Good	Remove deadwood >40mm in diameter and >1m in length (esp. east side).	Routine	<a href="#">defrost.stubbed.foal</a>	
32	Mixed group	Mature	Physiological: Good, Structural: Good Crabapple, hawthorn, field maple.	Remove epicormic growth (see appendix B). and crown lift.	Routine	<a href="#">static.masterful.dentures</a>	
33	Cherry Prunus	Mature	Physiological: Poor, Structural: Poor	Remove and replant with replacement.	Routine	<a href="#">sharper.collides.revoluting</a>	
34	Ash Fraxinus excelsior	Early-mature	Physiological: Dead, Structural: Poor	Remove.	Moderate	<a href="#">structure.toasted.match</a>	
35	Wych elm Ulmus glabra	Mature	Physiological: Good, Structural: Good	Crown lift to 2m.	Routine	<a href="#">artist.saved.crossword</a>	

## Notes:

Many of the recommendations in the schedule were in the report from January 2022. At the time, there were suggestions that volunteers might take on many of the smaller tasks but, 18 months on, this hasn't happened. The intervening two growing seasons have produced more growth and the volume of material will make it increasingly difficult for volunteers to complete the actions. The council may wish to consider using a professional arborist with a wood-chipper and trailer to carry out the work. Volunteers may then be better able to take on follow-up pruning of new growth.

There are some wildlife areas in the parish which make a valuable contribution to biodiversity but they will still need some management to prevent them reverting to brambles. It is recommended that the council contact Nottinghamshire Wildlife Trust for advice on managing these areas.

There are many young trees that have been planted as part of the landscaping for the parish. Young trees are usually best supported for two or three growing seasons after which the stakes and ties should be removed (see also [Stakes and ties on trees](#)). A leaflet summarising the key points for the aftercare of young trees has been supplied with this report.



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## Photographs

5



1. Oak: Crown lift to 2.5m over footpath & grass.



2. Oak: Crown lift to 2m over grass to facilitate mowing.

5



3. Norway maple: Remove deadwood >25mm in diameter and >1m in length.



4. Oak: Crown lift to 2m over grass to facilitate mowing.



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5



5. Turkey oak: Remove and replant with replacement.



6. Crabapple: Crown lift to 1.5m.

7



7. Field maple: Remove epicormic growth (see appendix B).



8. Field maple: Crown lift to 1.5m.



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↳



9. Young: Remove and replant with replacement.



10. Crabapple: Crown lift to 1.5m.

↳



11. Hornbeam: Crown lift to 2m.



12. Silver birch: Crown lift to 2m.



# AT2 Tree Surveys

b



13. Young: Remove and replant with replacement.



14. Walnut: Crown lift to 2m.

b



15. Apple: Remove split section.

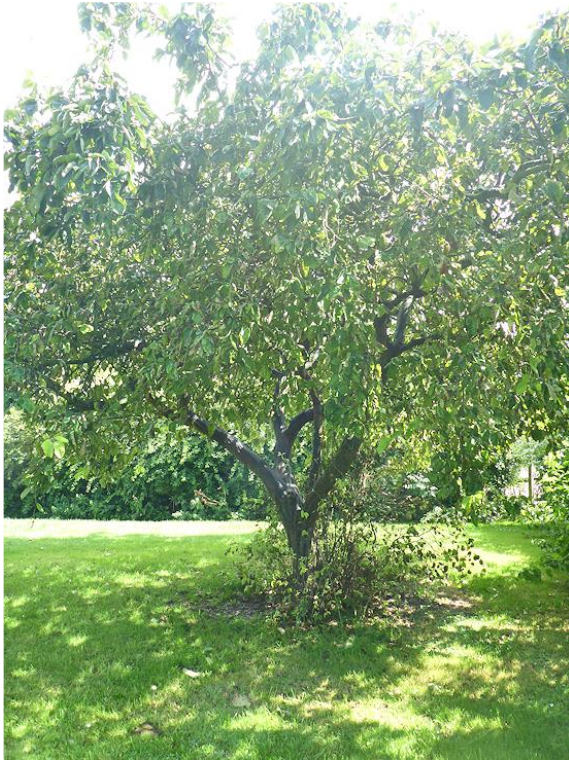


16. Crabapple: Remove epicormic growth (see appendix B).



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17



17. Apple: Remove epicormic growth (see appendix B).

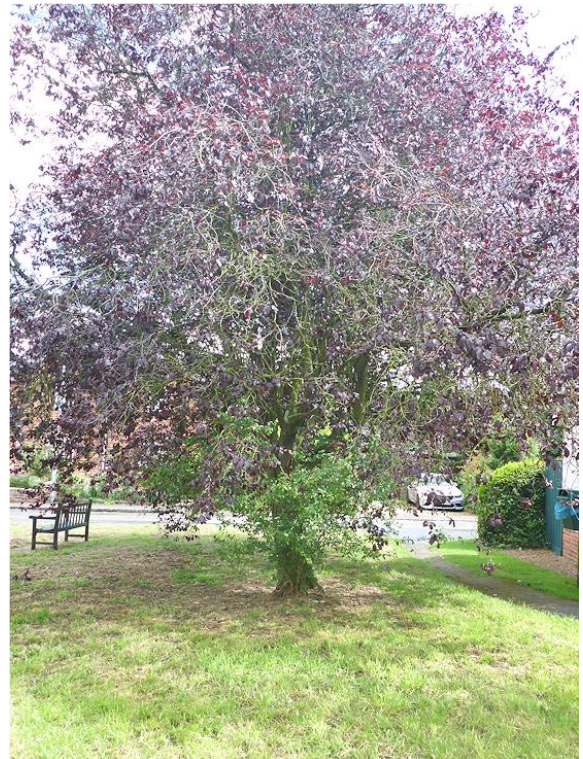


18. Wildlife area: Needs management to avoid reverting to brambles. Strim / brushcut annually.

19



19. Ash: Cavity at base. Reinspect in 18 months.



20. Cherry plum: Remove epicormic growth (see appendix B). and crown lift to 2m.



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21. Mixed group: Crown lift to clear pavilion.



22. Wildlife area: Needs management to avoid reverting to brambles. Strim / brushcut annually. Consult with Notts Wildlife Trust.

16



23. Crack willow: Option to re-pollard.



24. Cherry: Remove epicormic growth (see appendix B).



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25. Holm oak: Crown lift to 2m and target prune to clear building.



26. Walnut: Crown lift to 2m.

16



27. Young: Sycamore & ash saplings. Remove before they outgrow their position.



28. Apple: Remove epicormic growth (see appendix B).



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29. Mixed group: Apple, hawthorn. Remove epicormic growth (see appendix B). and crown lift to 1.5m.



30. Lawson cypress: Remove.

16



31. Ash: Remove deadwood >40mm in diameter and >1m in length (esp. east side).



32. Mixed group: Crabapple, hawthorn, field maple. Remove epicormic growth (see appendix B). and crown lift.



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33. Cherry: Remove and replant with replacement.



34. Ash: Remove.

12



35. Wych elm: Crown lift to 2m.

## Appendix A – Glossary of arboricultural terms

**Codominant stems** Codominant stems occur when a tree grows with two or more main stems or ‘leaders’ that are about the same diameter and emerge from the same location on the main trunk.

[See also appendix B](#)

**Crown cleaning** Removal of dead, damaged and crossing branches.

**Crown lifting** The removal of lower branches and/or parts of pendulous upper branches to provide clearance over roads and paths and allow more light under a tree or into nearby property.

Work specified as a clearance height above ground level.



**Crown reduction** The cutting back of branches to reduce the overall size of a tree’s canopy. Crown reduction should seek to retain the tree’s natural form and a flowing branch line without leaving stumps.

Work specified as a reduction in height and radial width and/or annotated photographs.



**Crown thinning** The thinning of branches within the canopy to allow more light through a tree or into nearby property.



**Drop crotch pruning** Removing a portion of a branch or stem by cutting back to a lateral branch which is at least 1/3 of the diameter of the section that is being removed. This avoids large wounds and produces a more natural, flowing profile.



**Epicormic growth** Bushy shoots growing directly from the trunk arising from adventitious or dormant buds.

[See also appendix B](#)

**Felling / Dismantling / Removal** With sufficient space it may be possible to fell a tree in one piece but often it is necessary to dismantle a tree and lower it piece by piece to the ground.

**Formative pruning** Pruning of young trees to produce a good shape and prevent future management problems.

**Hanger** A broken branch lodged or hanging in the canopy.

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## **Pollarding and Coppicing**

The removal of all or nearly all of a tree's branches and foliage. Pollarding is generally only appropriate on trees where the practice has been long established and carried out regularly such as willow, lime and plane. The initial pollard is cut when the tree is young and the wounds are small. Repollarding removes the regrowth with many small cuts. (Not to be confused with **Topping and Lopping** – see below)



A framework pollard removes all the smaller branches but leaves a framework of major limbs.

With coppicing trees or shrubs are cut close to ground level and allowed to regenerate.

## **Reiterative growth**

Reiteration is a response to canopy loss. Where canopy has been lost through failure or tree surgery, or it is dying back through disease (such as ash dieback) or senescence, new sprouting growth will occur to replace the lost foliage.

## **Ruderals**

A ruderal species is a plant species that is first to colonize disturbed lands such as construction sites.

## **Sucker growth**

Similar to epicormic growth but suckers shoot from the roots of the parent tree.

## **Target pruning**

Pruning to create or maintain clearance from buildings, street lights, guttering, aerials, etc.

Often specified as a clearance distance from a building or object.

## **Topping and Lopping**

Topping and lopping are terms for outdated practices where a large proportion of a tree's crown and leaf area was removed in one operation leaving large wounds which are prone to infection and decay.

Topping is not cost-effective tree management and does not provide a solution to perceived problems.

If it survives, the tree often grows back quickly with a dense, bushy crown which requires more frequent pruning. Regrowth is only weakly attached and very prone to breaking off, creating a hazardous situation at a significant height and making the tree a greater risk.

(Not to be confused with **Pollarding and Coppicing** – see above)



## Appendix B – Common issues

### Ash dieback

Chalara ash dieback is a highly destructive disease with the potential to cause significant damage to the UK's ash population, with implications for woodland biodiversity and ecology, and for the hardwood industries. It can kill young and coppiced ash trees quite quickly. Older trees can resist it for some time until prolonged exposure or another pest or pathogen such as honey fungus, attacking them in their weakened state, eventually causes them to succumb.

### Clearance over roads, pavements and street furniture

Trees overhanging roads may be a nuisance to traffic. Crown lifting to around 5.5 metres is sufficient for trucks and buses though in practice, on busy roads the passage of traffic tends to knock off any new growth that might cause an obstruction.

Branches over pavements should be lifted to a clearance of 2.5 metres. Low branches are particularly hazardous for partially sighted pedestrians.

Foliage may need to be target pruned to keep street lights clear and to avoid road signs being obscured.



### Codominant stems with included bark

Codominant stems occur when a tree grows with two or more main stems or 'leaders' that are about the same diameter and emerge from the same location on the main trunk. The bark for each stem is trapped inside the fork preventing them from fusing together. The tree will produce reactionary growth forming ribs at the ends of the crack to bind the stems. The size of these ribs is a strong indicator as to the extent of the bark inclusion.

This may also be referred to as a compression fork.

The presence of codominant stems with included bark reduces the strength of the union and therefore increases the risk of failure under loading during strong winds.

However, the presence of included bark does not mean the tree will fail. Codominant stems are a common feature of many trees including ash, acer and lime and most will live to the end of their natural life without a problem. The decision whether to take remedial action should take a range of factors into consideration including the size, position and condition of the tree and the proximity of 'targets' close to the tree.



### Dead wood

It is common for trees to have some dead wood in the crown where branches have died back or from previous storm damage. Dead wood provides a rich habitat that supports insects, invertebrates, birds and animals and removing all dead wood would remove a valuable benefit of trees. However, dead wood can present a hazard to people and property below so mitigation measures should be reasonable and proportionate. In high-usage areas such as paths, play areas and property it is recommended that dead wood greater than 25mm in diameter and more than a

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metre long is removed. In lower-use areas it is recommended that dead wood greater than 40mm is removed. In very low use areas dead wood can be retained. In some situations, people exposed to risks from trees are expected to make reasonable decisions about their own interaction with trees, particularly during extreme weather<sup>10</sup>.

## Epicormic growth

Trees such as lime and sycamore can produce bushy epicormic growth around the trunk. This does no harm but it gives a cluttered appearance and may be considered unsightly. The young growth can be safely removed to leave a clear stem. This is often carried out in conjunction with crown lifting where lower branches are pruned to raise the canopy. "Crown cleaning" is a term used for a combination of dead wooding and removal of cluttered growth.



## Ivy

Ivy has many habitat benefits for wildlife but its presence in trees can have disadvantages. It can outcompete and overshadow weaker trees – this is common in older hawthorns. Whilst it doesn't take anything directly from the tree it does use the tree for support. Large growths can be very heavy and will increase the sail area which can lead to failure in strong winds. Ivy may also obscure other problems such as fungal brackets or areas of decay. In low-use areas it may be beneficial to retain ivy for its habitat value but in higher use areas it should be carefully cut at one-and-a-half metres and again at ground level, removed to leave a clear section of trunk ("ringed") and allowed to die back. Care should be taken not to cut the bark of the tree resulting in damage to the cambium layer below.



## Stakes and ties on trees

Many of the stakes and ties used to support young trees are still attached many years later. This causes two problems. As the girth of the tree grows the tie becomes embedded and can effectively strangle the tree. Also, when over-staked the tree is not encouraged to become self-supporting and so, when the stake eventually rots away, the tree loses its support and collapses. Trees should typically only be staked for the first two growing seasons. The ties should be flexible and there should be a rubber spacer block between the tree and the stake to prevent chaffing.



Where stem growth is very slender or on exposed sites where young trees may need longer to adapt, the height of the support can be reduced to 0.5m after two growing seasons. This will allow the stem to flex and stimulate growth. The stakes should be completely removed after a further 1-2 years.



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## Strimmer damage

Strimming around the base of young trees can cause significant harm. Damage to the cambium layer can result in infection and decay causing partial or complete failure of the tree. Working practices should be modified and tree guards and/or mulching applied.



## Surface roots

Most tree roots are close to the surface of the topsoil where there is better access to nutrients and oxygen. Where roots are confined by foundations, driveways and pavements, raised roots may appear in lawns or disrupt hard surfaces. Small roots less than 20mm in diameter can be cleanly cut with a pruning saw but cutting or damaging larger roots is very detrimental to the tree's health and may compromise the tree's stability.



In lawns, the top 4cm of turf can be stripped back taking care not to damage the roots below. The level can then be built up around the roots with clean topsoil before new turf is laid or the area reseeded.

With hard surfaces such as blocks, the paving can be lifted and the surface levelled with a top-up layer of sharp sand before the surface is re-laid. Builders' sand should not be used due to its high salt content which is toxic to tree roots.



Root barriers can be installed to prevent roots spreading under paved surfaces.

## Appendix C – Inspection regime

There are billions of trees in the United Kingdom and they make a vital contribution to our health, wealth and wellbeing. Given the possibility that an exceptionally strong wind could damage or uproot even a mechanically ‘perfect’ specimen no tree is entirely safe. However, research demonstrates that the overall risk to the public from falling trees is extremely low, representing about a one in 10 million chance of an individual being killed by a falling tree (or part of a tree) in any given year<sup>10</sup>.

Cause of death	Annual risk
All types of accidents and other external causes	1 in 4,064
All forms of road accident	1 in 16,800
From trees	1 in 10,000,000
From lightning	1 in 18,700,000

Because trees present a very low risk to people, owners and managers should be able to make planning and management decisions within this context and avoid unnecessary intervention, survey and cost. In so doing, they can reduce unacceptable risks while optimising the many ecological, landscape and aesthetic values conferred by trees. Good tree safety management does not seek to eliminate risk, but to reduce it to a reasonable level. The proximity of trees to people and property is a major factor in deciding how rigorously they need to be inspected (if at all) and what sort of remedial action (if any) is appropriate if significant hazards are found. By carefully considering how trees fit into a particular local context, owners and managers can better identify those areas and situations requiring action. It will also help them ensure that any management is proportionate and strikes an appropriate balance between the real risks and benefits. Inspection is unquestionably necessary where people or high value items of property are within their falling distance. Clearly however, there are remote areas where tree failures are very unlikely to cause injury or damage. In some situations, people exposed to risks from trees are expected to make reasonable decisions about their own interaction with trees, particularly during extreme weather.



**Just because a tree is leaning it doesn't mean it is unsafe.**



## Frequency of inspection

Guidance relating to inspection frequency varies greatly; there is no uniformly accepted frequency appropriate to all situations. The decision is a judgment for the owner, agent or adviser, applying sensible, reasonable behaviour in taking account of the site circumstances as a basis for good practice. Inspections on a three or even five-year cycle are not uncommon but trees, particularly older specimens, can become diseased and unstable within a relatively short time.

In the case of *Cavanagh v Witley Parish Council (1) and D Kevin Shepherd (t/a Shepherd Tree Surgeons & Forestry Contractors) (2) [2017]*<sup>9</sup> the High Court ruled a parish council to have been negligent in its approach to inspecting a roadside tree which had fallen onto a bus. Judgment was given for the Claimant against the Council. In the findings, the judge held:

*The location and type of tree and the consequences if it were to fall, were relevant here. The tree was in a high-risk location, being beside a road, and following Forestry Commission Guidance it should have been inspected more frequently than every 3 years, at least every 2 years and ideally every 18 months when trees were in and out of leaf.*

It is also recommended that trees are checked for damage where there is some form of trigger such as an extreme weather event.

## Appendix D – References & Bibliography

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- 10 National Tree Safety Group. *Common Sense Risk Management of Trees* (December 2011) Forestry Commission, Edinburgh, FC stock code FCMS024, ISBN: 978-0-85538-840-9
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- 12 Smiley, E. T., Lilly S and Matheny N (2017) *Best Management Practices – Tree Risk Assessment*, 2<sup>nd</sup> edition, International Society of Arboriculture. ISBN: 1-881956-98-9
- 13 Ministry of Housing, Communities & Local Government: (March 2014). *Guidance - Tree Preservation Orders and trees in conservation areas*. [www.gov.uk](http://www.gov.uk)
- 14 Forbes-Laird Arboricultural Consultancy. *TEMPO Tree Evaluation Method for Preservation Orders*. November 2009.

### Recommended reading

National Tree Safety Group. *Common Sense Risk Management of Trees Landowner summary of guidance on trees and public safety in the UK for estates and smallholdings*, Forestry Commission, Edinburgh, FC stock code FCMS025, ISBN: 978-0-85538-841-6, Downloadable PDF from [ntsgroup.org.uk/guidance-publications](http://ntsgroup.org.uk/guidance-publications) or just search for “FCMS025”.

