

# Elmbridge Ancient and Veteran Tree Assessment



November 2018

RMTTree Consultancy Ltd 



**Elmbridge**  
Borough Council  
*... bridging the communities ...*

# **Elmbridge Borough Council**

## **Ancient and Veteran Tree Assessment**

November 2018

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## Foreword

Ancient and veteran trees are living ecosystems of great visual, historic, landscape and ecological importance. The very specific combination of structural and physiological features coupled with age (in the case of ancient veterans) make them rare features within both the urban and rural environment. They provide habitats for a host of animals, plants and fungi that often have symbiotic relationships with each other.

In recent years there has been an emphasis by the Government and professional organisations to highlight the importance of ancient and veteran trees in the environment in a similar way to ancient woodland. This has led to calls for a better understanding of management of such trees and increased protection from development pressures.

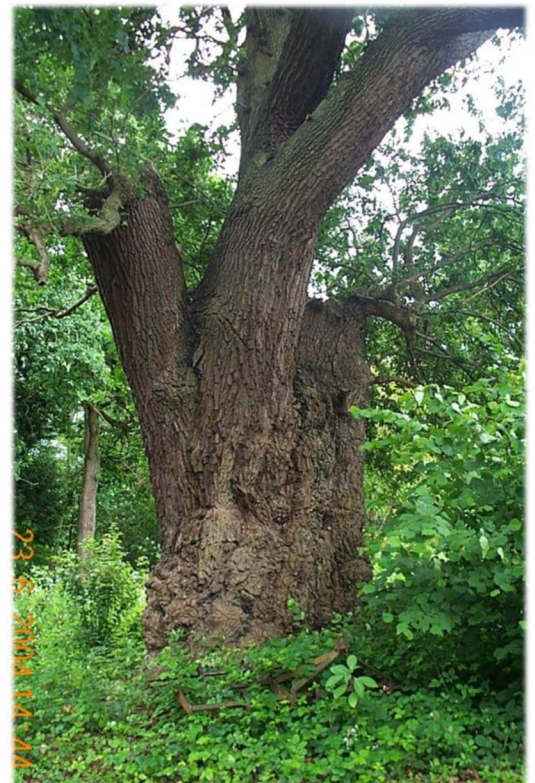
In July 2018 the revised National Planning Policy Framework (NPPF) was published which updated the guidance for the consideration of ancient and veteran trees when determining planning applications paragraph 173c states:

“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.”

As a Regulatory Authority with responsibility for determining planning applications, preparing spatial plans and policies as well as having land owner responsible for the management of trees and woodlands within parks and commons, Elmbridge Borough Council (the Council) has a duty to care for its sylvan environment which includes consideration of ancient and veteran trees.

The report establishes an appropriate methodology for assessing ancient and veteran trees. The methodology has been applied to ‘an area of search’ within Elmbridge to inform the Council’s Local Plan preparations. The key findings of the assessment have been provided.

The report concludes with recommendations in relation to ancient and veteran trees in the Council’s plan-making and decision-making.



# 1 – Introduction

## What are ancient and veteran trees?

The following passage taken from glossary of the NPPF (2018):

*“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.”*

## What was required and why?

- 1.1. The principle of ancient and veteran trees as an irreplaceable habitat was first introduced in the draft proposed revisions to the NPPF (March 2018), which considered ‘aged and veteran trees’. The publication of a revised National Planning Policy Framework (NPPF) published in July 2018 confirmed the status of such trees as ‘irreplaceable habitable’ but the published revisions included subtle but noticeable changes that sought to provide increased clarity and enforceability. Indeed, the term ‘aged’ was replaced by ‘ancient’ to provide greater clarity.
- 1.2. Paragraph 11 of the NPPF states that “plans and decisions should apply a presumption in favour of sustainable development”. In relation to plan- making this means that “strategic policies should, as a minimum provide for objectively assessed needs for housing and other uses, as well as any needs that cannot be met within neighbouring areas unless:
  - i. the application of policies in this framework that protects area of assets of particular importance provides a strong reason for restricting the overall scale, type or distribution of development in the plan area (footnote 6)”.
- 1.3. In relation to decision-taking, the paragraph 11, criteria d) states “where there are no relevant development plan policies, or the policies which are most important for determining the application area out-of-date, granting permission unless:
  - i. the application of policies in this Framework that protect area or assets of particular importance provides a clear reason for refusing the development proposal (footnote 6)”.
- 1.4. Footnote 6, often referred to as ‘national constraints’ provides a definitive list and states “ The policies referred to are those in this Framework (rather than those in development plans) relating to: habitat sites (and those sites listed in paragraph 176) and / or designated as Sites of Special Scientific Interest; land designated as Green Belt, Local Green Space, an Area of Outstanding Natural Beauty, a National Park (or within Boards Authority) or defined as Heritage Coast; **irreplaceable habitats**; designated heritage assets (and other heritage assets of archaeological interest referred to in footnote 63) ; and areas at risk of flooding or coastal change.”
- 1.5. Paragraph 175 of the revised NPPF states that “when determining planning applications, local planning authorities should apply the following principles:

c) 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 (footnote 58) and a suitable compensation strategy;”

- 1.6. Footnote 58 provides further explanation of what could be deemed to be exceptional reasons, it states “for example, infrastructure projects (including nationally significant infrastructure projects, orders under the Transport and Works Act and hybrid bills), where the public benefit would clearly outweigh the loss or deterioration of habitat”. The NPPF does not make specific reference as to what compensation strategies would be acceptable what would be considered suitable compensation.
- 1.7. The Council have sought to identify an appropriate methodology for assessing ancient and veteran trees. At the time of the commission there was no professionally recognised system. The methodology for identification and inclusion of ancient and veteran trees has been drawn up in line with current guidance found in Ancient and other veteran trees: further guidance and management, British Standard 5837:2012 Trees in relation to design, demolition and construction – Recommendations and British Standard 3998:2010 Tree Work - Recommendations.
- 1.8. Specifically, the methodology was required to be a transparent and easily applicable method of assessing whether a tree can be considered as an ancient or veteran specimen by applying current arboricultural knowledge, best practice and guidance;
- 1.9. As part of the Local Plan preparations, the Council is considering how it can accommodate growth in particular housing needs sustainably. As ancient and veteran trees are a constraint that would restrict development, this assessment will form part of the wider Local Plan evidence base which considers the constraints and opportunities as to the amount growth and its spatial distribution what can be sustainably be delivered within the Borough. Specifically, the findings of this assessment will be used to build upon the Council’s existing ‘constraint’ evidence base documents including Green Belt Boundary Reviews undertaken by Arup and the in-house Absolute Constraints Review (2016).
- 1.10. The methodology is to be applied to an ‘area of search’ to identify ancient and veteran trees. The ‘area of search’ was identified by the Council, building upon the findings of the Green Belt Boundary Review work and the previous Absolute Constraints Review and responding to the locational nature of ancient and veteran trees outside of urban areas. This was a proportionate approach that reflected the Council’s current stage within the plan-making process. However, it should be note that methodology could be applied to any site / location within the Borough.
- 1.11. Specifically, the ‘area of search’ comprises the following sites:
  - 13 ‘weakly performing’ Local Areas identified in ARUP’s (Ove Arup & Partners Ltd) GBBR (Green Belt Boundary Review) 2016;
  - 93 sub- Area parcels identified in emerging ARUP sub-division work (currently in draft and not published)
- 1.12. All survey work commenced on 31<sup>st</sup> July 2018 and was completed by the 5<sup>th</sup> September 2018.

## 2. Assessment and Survey Methodologies

### Existing guidance on assessing ancient and veteran trees

- 2.1. It was identified at the start of the project that it would be necessary to create a pro-forma that allowed an assessor to demonstrate why a tree has or has not been considered as an ancient or veteran. The main source of guidance to aid in creation of the pro-forma was the Ancient Tree Forum publication, Ancient and other trees: further guidance on management by David Lonsdale.
- 2.2. On page 27 of the Ancient Tree Forum publication it explains that to recognise an ancient tree, it should have “all or most of the following characteristics:
  - a) biological, aesthetic or cultural interest, because of its great age\*
  - b) a growth stage that is described as ancient or post-mature
  - c) a chronological age that is old relative to others of the same species.”

**\* Note: The biological interest is largely derived from the development of a diverse range of habitats associated with dead and decaying wood. This is a largely age-dependent process: see the further definitions in Section 1.2.1 (this reference is for the Ancient Tree Forum publication not this policy document).**

- 2.3. It goes on to advise that “in order to recognise an ancient or other veteran tree in the field, surveyors should look for the following visual characteristics:
  - a girth\*\* that is very large for the species, allowing for the local growing conditions
  - extensive decay or hollowing in exposed parts of the central wood
  - a crown structure that, for the species concerned, is characteristic of the latter stages of life
  - a crown that has undergone retrenchment, i.e. it has become smaller (owing to dieback and breakage) since maturity.”

**\* Note: Usually, the girth of the main stem is measured as described on page 34 this reference is for the Ancient Tree Forum publication not this policy document. The girth of a coppice stool may be used as an aid to estimating age if data for age-girth relationships are available for the species concerned.**

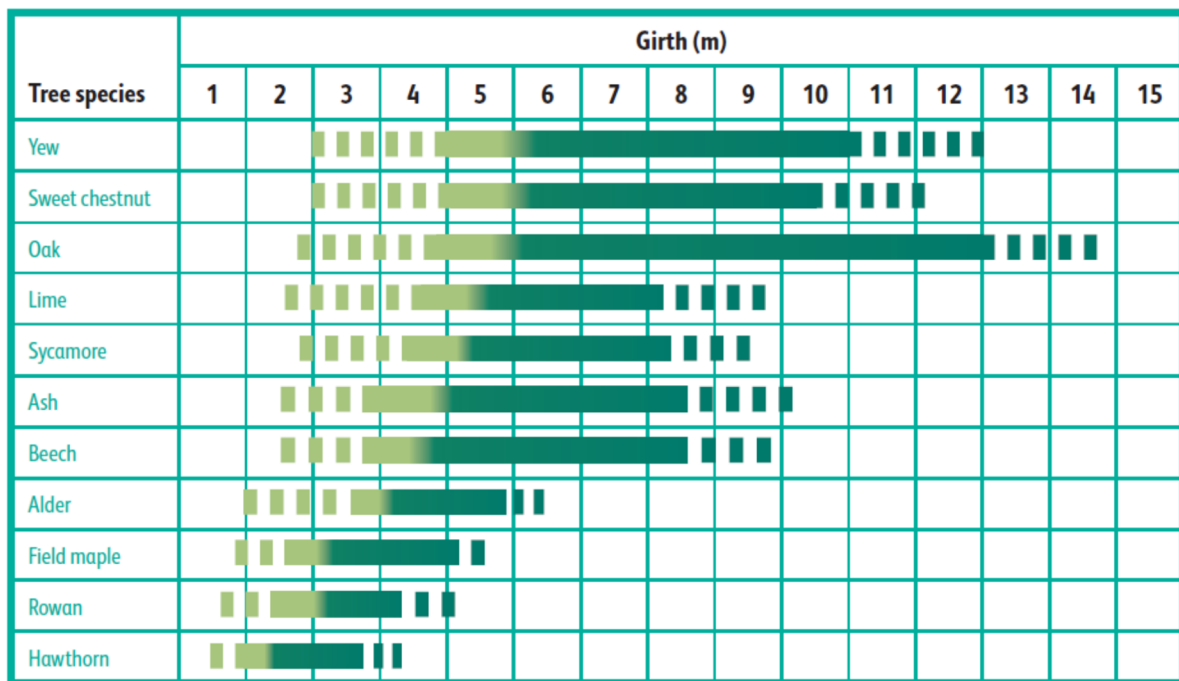
- 2.4. A more specific breakdown of features to look for and which would form the ten 10 qualifying criteria has been provided under “other key attributes (the more a tree has, the stronger the indication it is a veteran)”
  - Girth large for the tree species concerned
  - Major trunk cavities or progressive hollowing
  - Naturally forming water pools
  - Decay holes
  - Physical damage to trunk
  - Bark loss
  - Large quantity of dead wood in the canopy
  - Sap runs
  - Crevices in the bark, under branches or on the root plate sheltered from direct rainfall.
  - Fungi

- 2.5. Another key attribute is the diameter or girth of the tree’s main stem at 1.5m (breast height) above ground level. The guidance explains: “size-based attributes (these depend on the tree species concerned, together with soil and climate; the following criteria apply generally to oak – *Quercus robur* or *Q. petraea* in the UK)
- Trees with a diameter at breast height of more than 1.0 m (girth 3.2 m) are potentially interesting.
  - Trees with a diameter of more than 1.5 m (girth 4.7 m) are especially valuable with respect to conservation.
  - Trees with a diameter of more than 2.0 m (girth 6.25 m) are truly ancient.”

### Proposed Elmbridge methodology

- 2.6. Having considered the guidance above it was decided that the pro-forma should follow the process of assessment as it is explained below:
- a) Phase 1 requires that the stem girth of the main stem is measured at 1.5m above ground level and it must be within 300mm of the minimum veteran tree measurement for that species to progress to phase 2. The following chart (Figure 1) can be found on page 5 of Ancient and other trees: further guidance on management and provides a guide to the girth measurements for the most commonly found ancient and veteran species in the UK. The chart of Figure 2 provides an interpretation of the stem girths within Figure 1 for this study.

**Figure 1** – Chart of stem girth in relation to age and development classification of trees which can be found on page 5 of the Ancient Tree Forum publication Ancient and other trees: further guidance on management. David Lonsdale et al. 2013



KEY: ■ ■ ■ Locally notable ■ Veteran/notable ■ Ancient ■ ■ ■ Late ancient

Fig 1.3: Chart of girth in relation to age and developmental classification of trees\*

**Figure 2** – Interpretation by RMT Tree Consultancy Ltd of Figure 1 for the Elmbridge Study.

Tree Species	Minimum Veteran Girth (m)	Minimum Ancient Girth (m)
Yew	3.90	5.20
Sweet Chestnut	3.95	5.10
Oak	3.75	5.00
Lime	3.40	4.50
Sycamore	3.30	4.20
Ash	2.80	4.00
Beech	2.80	3.80
Alder	2.50	3.10
Field Maple	2.60	2.10
Rowan	2.40	2.05
Hawthorn	1.90	1.30

- b) If the tree has a qualifying stem girth then the 10 qualifying criteria listed in section 2.4 must be assessed. Not all ancient and veteran trees will exhibit all 10 features however, it is considered that to fall within the definition it should have at least 60% (6) of the features listed.
- c) If a tree has a stem girth within 300mm of the lowest qualifying stem girth for that species, then to pass phase two it must have all ten features. This is discretionary and the assessor must weigh the merits of including a tree which does not have a qualifying stem girth.
- d) A section for note taking was included to provide any clarification or thoughts on the assessment that may be useful in the future.
- 2.7. It is considered that this pro-forma provides a clear and objective but easy to use step by system to identify ancient and veteran trees – see appendix A.
- 2.8. Due to the number of criteria, some of which are subjective in nature, the assessment and identification of trees as ancient or veteran, can result in differing profession opinion. On the basis of the criteria, it is unlikely that those undertaking surveys would, without prompting or instruction, consistently agree which trees should qualify for inclusion.

## Area of Search

- 2.9. The 'area of search' total 1,314ha of land and comprised the following sites:
- 13 'weakly performing' Local Areas identified in ARUP's (Ove Arup & Partners Ltd) GBBR (Green Belt Boundary Review) 2016;
  - 93 Sub- Area parcels identified in emerging ARUP GBBR sub-division work (currently in draft and not published).

## Initial desk-based assessment

- 2.10. As outlined in the pre-survey expectations it was identified very early in the process that not all sites will have trees and those sites with trees will not necessarily have ancient or veteran trees due to factors such as historical land use, current land use or development. On this basis, an initial desk- based stage was considered necessary to identify sites where would be a higher chance of ancient and veteran trees being present. This was to be carried out using Google's



online aerial photography and the mapped imagery held by Elmbridge Borough Council including historic Ordnance Survey maps.

- 2.11. This initial sieve sought to identify those sites that had low or no tree coverage, or trees that were not of a sufficient age and therefore would not require a visit. Sites that were identified as having moderate to high tree coverage could be sorted into two groups that required either the whole site to be surveyed or those that may have sporadic areas of trees. This was considered a proportionate approach given the extent of the areas of search.
- 2.12. Following the desk- based survey the sites were sorted into the following categories:
- **Not requiring a site visit;**  
Sites with very few or no trees.
  - **Partial or limited visit;**  
Sites with small numbers of mature trees or sporadic tree cover, or those sites where there is extensive tree coverage which is identified as being immature and/or too small in stature. The method of assessment may initially consist of viewing the site from a vantage point to confirm whether a more thorough site assessment is required.
  - **Full site visit of entire site;**  
Sites with large numbers of trees of the right size and age, especially large sites, which need onsite assessment. The site would be walked by the assessor to view the tree coverage.
- 2.13. In the case of sites that been sorted in the partial and full assessment groups, it was decided that there should be some flexibility if it later became clear that the site attributes merited a change in the level of assessment.

## On- site assessments

- 2.14. **Partial site visit and survey:** Sites identified as having limited, sporadic, or young tree coverage the sites were not fully walked. The areas of trees were viewed from vantage points to ascertain that there would not be ancient or veteran trees. If it was deemed that the site required further investigation, the site was re-categorised to have a full site visit carried out.
- 2.15. **Full site visit and survey:** A full site survey was conducted on foot so that the tree cover could be observed from ground level to identify those specimens with the characteristics associated with ancient veteran or veteran trees. If a potential specimen was identified the following process was followed in the listed order:
1. Phase 1 of required the girth of the tree was measured at a height of 1.5m above ground level and cross referenced with the data within the Ancient Tree Forum publication “Ancient and other veteran trees: further guidance on management” (Figures 1 and 2) to ensure that it was the minimum required for that species to qualify as a veteran or ancient veteran. For example, the guidance provided in the Ancient Tree Forum publication Ancient and other veteran trees: further guidance on management indicates that a veteran Oak should have a minimum stem girth (circumference) of 3.75m and an ancient veteran Oak would be 5m girth.
  2. To take into account factors such as discrepancies in stem girth measurements due to issues such as burrs, bulges and Ivy coverage, or trees which have all of the veteran characteristics but may be just outside the required girth range, a discretionary tolerance of 300mm below the required girth was applied, however such a specimen would have to have all 10 characteristics listed in phase 2.
  3. Once a qualifying girth size had been established, Phase 2 of the of the assessment was carried out and to each tree. A tree with a qualifying stem girth was required to have 60% of the

characteristics for it to be classified as ancient or veteran while a tree with a stem girth within the 300mm tolerance was required to have all 10.

4. Trees that did not have the required stem girth or characteristics were generally considered to be a transitional or notable specimens.
5. In some instances, transitioning specimens may have been recorded on the plans however this was done at the discretion of the surveyor because it falls outside the scope of the commission.
6. The location of each qualifying tree was recorded on a paper location plan and photos were taken.
7. A TEMPO (Tree evaluation method for tree preservation orders) assessment was carried out to provide guidance on the justification of placing the recorded trees under statutory protection. TEMPO is scoring system based on the assessment of a tree's public amenity value, quality and expediency. An example of TEMPO is provided in Appendix B.
8. The findings of each site were recorded on an Excel spreadsheet which detailed the following attributes:
  - Date of assessment,
  - Surveyor,
  - Number of veteran trees recorded,
  - Number of ancient trees recorded,
  - Ancient woodland present,
  - TEMPO score,
  - Detailed assessment,
  - Lesser assessment,
  - TPOs on land,
  - Contact info.

### 3. Survey Expectations and Findings

#### Pre-survey expectations

- 3.1. Ancient and veteran trees are prized organisms because of their rarity and from professional experience, due to the combination of factors that need to come together for a tree to be classed as such, the incidence of these trees within both urban and rural landscapes was expected to low.
- 3.2. It was considered that most ancient or veteran trees would likely be growing in parks and parklands environments where they have been subject to periodic management. Some specimens were expected in agricultural fields where modern farming practices may have contributed to the dieback or gradual decline of trees to a point where they may be considered veteran.
- 3.3. It was not expected that there would be ancient or veteran specimens in more urban sites or residential gardens. This is in part due to safety and liability pressures that property owners may feel resulting in the removal of trees, especially those that exhibit ancient and veteran characteristics.

#### The survey findings

- 3.4. The following table provides a breakdown of the number of sites not requiring a site visit or requiring a partial or full site visit.

**Figure 3** – Number of sites not requiring a site visit or requiring a partial or full site visit.

Desk based and site visit categories	Total
Not requiring a site visit	31
Partial or limited visit	41
Full site visit of entire site	34

- 3.5. The survey work found a small number of transitioning ancient and veteran trees which exhibited a small number of physiological and structural features that would be found on ancient or veteran trees including a large girth size. However, they did not exhibit enough of these features to warrant being recorded as an ancient or veteran at this point in time.
- 3.6. Although outside of the scope of the commission, in some instances a note was made that a tree may be notable and worthy of a TPO (Tree Preservation Order) or transitioning towards being an ancient or veteran tree.
- 3.7. As expected the number of trees that were recorded as ancient or veteran within the search area was limited, with only eight trees recorded. Of those 2 trees (T6 & T8 Sweet Chestnuts) met the requirements to be categorised as ancient and 6 trees (T1, T2, T3, T4, T5 & T7 English Oaks) met the requirements to be categorised as veteran. Figure 3 shows the details of the trees recorded as being ancient or veteran, including their TEMPO score.

**Figure 4** – Survey results including TEMPO scores showing two ancient tree and six veteran trees

Site Ref:	Site Location:	Tree Ref:	Species	Ancient (A) or Veteran (V) Specimen	TEMPO Score
SA-2	Land between off Woodlands Lane and Cobham Road, Cobham	T1	English Oak	V	18
SA-2	Land between off Woodlands Lane and Cobham Road, Cobham	T2	English Oak	V	18
SA-2	Land between off Woodlands Lane and Cobham Road, Cobham	T3	English Oak	V	19
SA-52	West End Recreation Ground, West End Lane, Esher	T4	English Oak	V	16
LA-14	Knowle Hill Park, Water Lane, Cobham	T7	English Oak	V	Already protected by a TPO.
LA-51	Oatlands Park, Oatlands Drive, Weybridge	T6	Sweet Chestnut	A	19
LA-51	Oatlands Park, Oatlands Drive, Weybridge	T8	Sweet Chestnut	A	20
LA70	Imber Court Sports Club, Ember Lane, East Molesey	T5	English Oak	V	19

- 3.8. As outlined in the pre-survey expectations, there were a higher incidences of ancient or veteran trees located in agricultural areas, such as the areas south of the Borough around Stoke D’Abernon and Cobham. It was found that while there were many old hedgerow Oaks, they were generally in state of good physiological and structural health so were only identified as being transitioning trees.
- 3.9. To summarise, the survey findings were as expected with only two ancient and six veteran trees identified across the areas of search. As it was anticipated those trees were found mainly on agricultural sites (T1, T2, T3) or parkland sites (T4, T5, T6, T7, T8). For each recorded tree an assessment form was completed which can be seen in appendix D and photos were taken to assist with identification see appendix E.
- 3.10. The location of each tree was recorded on a paper location plan and this has been passed to Elmbridge Borough Council. It is intended that each recorded tree will be recorded on the Council’s GIS system for future reference.

## 4. Conclusions

### Reflecting on the methodology

- 4.1. A method for assessing ancient and veteran trees has been agreed and tested and this can be applied to all locations within the Borough. It has been outlined within the report that aspects of assessing ancient and veteran are considered subjective. However, in drawing up the method of assessment it is considered that best practice has been applied objectively and correctly to provide an appropriate means of assessing potential ancient and veteran trees on any site.
- 4.2. The revised NPPF 2018, recently introduced ancient and veteran trees into the definition of an irreplaceable habitat into national planning policy. At the time of establishing the methodology for the assessment, there was no industry standard approach to call upon. It should be noted that when the final assessments were being completed an assessment methodology for ancient and veteran trees was released by Forbes Laird Arboricultural Consultancy Ltd<sup>1</sup> which was called Recognition of Ancient, Veteran & Notable Trees (RAVEN). An example of TEMPO along with instructions of how it works is provided in Appendix C.
- 4.3. Despite RAVEN not being available prior to its general release, it is considered that the assessment system drawn up by RMT Tree Consultancy Ltd in this assessment is directly comparable and follows a very similar method. This is considered to be a positive indicator that there are similar approaches emerging from within the industry as to how ancient or veteran trees should be assessed

### Were the findings as expected?

- 4.4. The small number identified demonstrates the rarity of ancient and veteran trees and reinforces the importance of retaining them wherever possible, including on potential development sites. This is supported by Ancient and other veteran trees: further guidance on management, paragraph 173c of the 2018 NPPF document and also British Standard 5837:2012.

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<sup>1</sup> Forbes Laird Arboricultural Consultancy Ltd are known among other things for releasing the TEMPO (Tree Evaluation Method For Preservation Orders) which is widely used within the arboricultural industry.

## 5. Recommendations

### Things to Consider

- 5.1. The following recommendations have provided in relation to how ancient and veteran trees can be recognised and / or managed.
- 5.2. Elmbridge Borough Council should retain information, including the location, of any ancient or veteran tree that has been recorded so that the data is available in the future. It is recommended that a layer should be created on the Elmbridge Borough Council mapping system so that the location and useful data can be accessed by Council officers. If it is possible the assessment pro-forma for each tree could be made available by clicking on each tree, in a similar way to Tree Preservation Order (TPO) which allows TPO documents to be downloaded as a PDF. The data headings that could be included on ancient and veteran layer are as follows:
  - Tree no. – T1, T2 etc
  - Species
  - Location
  - Ancient or Veteran classification (listed as A or V)
  - Date recorded
  - TEMPO score
- 5.3. The use of TPOs to protect ancient or veteran trees should take into account the merits of each individual case and site.
- 5.4. As the survey methodology has been applied to ‘an area of search’ and provides a ‘snap shot’ in time it is recommended that the Council maintains and monitors its records of current and transitioning ancient and veteran trees within the Borough. This could involve Elmbridge Borough Council Tree Officers and Ecologists undertaking ad-hoc surveys during their day to day site visits if they consider that a tree may be ancient or veteran as well as consideration of periodic reviews of those trees previously identified as transitioning specimens. Or alternatively the methodology can readily be applied to survey broader areas of the Borough.
- 5.5. As part of the Local Plan preparations, the Council is considering how it can accommodate growth, in particular housing need, sustainably. In accordance with the revised NPPF 2018, the findings of the assessment should form part of the wider Local Plan evidence base which consider the constraints and opportunities as to the amount and spatial distribution of growth that the Borough can sustainably deliver. Specifically, they should be considered alongside the Council’s existing Review of Absolute Constraints 2016.

## Elmbridge Ancient and Veteran Tree Evaluation Form

Site survey details					
<b>Site Ref:</b>		<b>Surveyor:</b>			
<b>Area:</b>		<b>Date:</b>			
<b>Species</b>		<b>Tree No:</b>			
1 <sup>st</sup> Phase qualifying criteria					
<b>Girth (m) at 1.5m above ground level</b>		<b>Ancient</b>		<b>Veteran</b>	
2nd Phase qualifying criteria					
<p>Any tree that meets the qualifying stem girth for a veteran tree as shown in figure 1 must achieve at least 6 criteria.</p> <p>Any tree with a girth within 300mm of the qualifying stem girth for a veteran tree (as shown in figure 1) can be recorded as a veteran but only if it meets all 10 criteria.</p> <p>E.g. An oak with a stem girth of 3.45m and with all 10 criteria ticked can recorded as a veteran.</p>					
<b>Major trunk cavities.</b>		<b>Physical damage to trunk.</b>			
<b>Naturally forming water pools.</b>		<b>Bark loss.</b>			
<b>Decay holes.</b>		<b>Considerable deadwood in canopy.</b>			
<b>Sap runs.</b>		<b>Crevices in the bark, under branches or on the rootplate sheltered from direct rainfall.</b>			
<b>Fungi.</b>		<b>An old look.</b>			
General notes:					

# TEMPO Scoring Sheet

## TREE EVALUATION METHOD FOR PRESERVATION ORDERS - TEMPO

### SURVEY DATA SHEET & DECISION GUIDE

Date:	Surveyor:
-------	-----------

<b>Tree details</b>		
TPO Ref (if applicable):	Tree/Group No:	Species:
Owner (if known):	Location:	

REFER TO GUIDANCE NOTE FOR ALL DEFINITIONS

**Part 1: Amenity assessment**

**a) Condition & suitability for TPO**

- |                          |                         |
|--------------------------|-------------------------|
| 5) Good                  | Highly suitable         |
| 3) Fair/satisfactory     | Suitable                |
| 1) Poor                  | Unlikely to be suitable |
| 0) Dead/dying/dangerous* | Unsuitable              |

<b>Score &amp; Notes</b>
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\* Relates to existing context and is intended to apply to severe irremediable defects only

**b) Retention span (in years) & suitability for TPO**

- |           |                 |
|-----------|-----------------|
| 5) 100+   | Highly suitable |
| 4) 40-100 | Very suitable   |
| 2) 20-40  | Suitable        |
| 1) 10-20  | Just suitable   |
| 0) <10*   | Unsuitable      |

<b>Score &amp; Notes</b>
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\*Includes trees which are an existing or near future nuisance, including those clearly outgrowing their context, or which are significantly negating the potential of other trees of better quality

**c) Relative public visibility & suitability for TPO**

Consider realistic potential for future visibility with changed land use

- |   |                     |
|---|---------------------|
| 5) Very large trees with some visibility, or prominent large trees  | Highly suitable     |
| 4) Large trees, or medium trees clearly visible to the public       | Suitable            |
| 3) Medium trees, or large trees with limited view only              | Suitable            |
| 2) Young, small, or medium/large trees visible only with difficulty | Barely suitable     |
| 1) Trees not visible to the public, regardless of size              | Probably unsuitable |

<b>Score &amp; Notes</b>
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**d) Other factors**

Trees must have accrued 7 or more points (with no zero score) to qualify

- 5) Principal components of formal arboricultural features, or veteran trees
- 4) Tree groups, or principal members of groups important for their cohesion
- 3) Trees with identifiable historic, commemorative or habitat importance
- 2) Trees of particularly good form, especially if rare or unusual
- 1) Trees with none of the above additional redeeming features (inc. those of indifferent form)
- 1) Trees with poor form or which are generally unsuitable for their location

<b>Score &amp; Notes</b>
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**Part 2: Expediency assessment**

Trees must have accrued 10 or more points to qualify

- 5) Immediate threat to tree inc. s.211 Notice
- 3) Foreseeable threat to tree
- 2) Perceived threat to tree
- 1) Precautionary only

<b>Score &amp; Notes</b>
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**Part 3: Decision guide**

- |       |                       |
|-------|-----------------------|
| Any 0 | Do not apply TPO      |
| 1-6   | TPO indefensible      |
| 7-11  | Does not merit TPO    |
| 12-15 | TPO defensible        |
| 16+   | Definitely merits TPO |

<b>Add Scores for Total:</b>
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<b>Decision:</b>
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# Example of alternative ancient and veteran tree assessment form – RAVEN – Recognition of Ancient, Veteran and Notable Trees from Forbes Laird Arboricultural Consultancy



## Recognition of Ancient, Veteran & Notable Trees – **R A V E N**

### Step One—Size Assessment

Tree has very large girth for species

*Note—pollarding & senescence reduce stem increment: girth may be deceptive – assess stem girth relationship with life-stage accordingly*

Refer to *Ancient and other veteran trees: further guidance on management* (Lonsdale, ATF 2013) at Fig. 1.3: *Chart of girth in relation to age and developmental classification of trees*

IF GIRTH NOT VERY LARGE FOR SPECIES, STOP HERE!

### Step Two—Additional Primary Features

At least one of the following should be present, or refer to Step Three

- Extensive decay, especially brown rot or exposed stem heartwood in relevant species
- Extensive hollowing
- Crown senescence
- Retrenchment

### Step Three—Secondary Features

If no additional Primary Feature is present, tree should have at least four Secondary Features

- Large quantity of dead wood in crown, especially where large-sized
- Major storm damage/ breakout wounds
- Habitat spaces: decay holes and/ or crevices/ branch splits sheltered from direct rainfall
- Aerial rooting
- Sap run/ slime flux
- Water pool
- Bark loss inc. due to lightning strike
- Fungi
- Other epiphytic plants, including significant presence of lichens

### Step Four – Identification Guide

- ANCIENT**  
Veteran tree with extremely large girth: age likely > 50% of estimated species maximum  
*E.g. pedunculate oak, 2m stem dia, average site: ca. 460 years old, ca. 50% of species max*
- VETERAN**  
Very large girth for species and qualifies under either Step Two or Step Three
- NOTABLE**  
Very large girth for species but does not qualify under either Step Two or Step Three

IF A TARGET IS PRESENT, ASSESS RISK USING *THREATS*

## Elmbridge Ancient and Veteran Tree Assessment Results

Site survey details					
Site Ref:	SA-2	Surveyor:	R. Toll		
Area:	Cobham	Date:	7/8/18		
Species	English Oak	Tree No:	T1		
1 <sup>st</sup> Phase qualifying criteria					
Girth (m) at 1.5m above ground level	4.60	Ancient		Veteran	✓
2nd Phase qualifying criteria					
<p>Any tree that meets the qualifying stem girth for a veteran tree as shown in figure 1 must achieve at least 6 criteria.</p> <p>Any tree with a girth within 300mm of the qualifying stem girth for a veteran tree (as shown in figure 1) can be recorded as a veteran but only if it meets all 10 criteria. E.g. An oak with a stem girth of 3.45m and with all 10 criteria ticked can recorded as a veteran.</p>					
Major trunk cavities.	✓	Physical damage to trunk.			
Naturally forming water pools.		Bark loss.			
Decay holes.	✓	Considerable deadwood in canopy.		✓	
Sap runs.	✓	Crevices in the bark, under branches or on the rootplate sheltered from direct rainfall.		✓	
Fungi.	✓	An old look.			
General notes:					
<ul style="list-style-type: none"> <li>• Moderate large sized deadwood in canopy;</li> <li>• Decay fungi <i>Inonotus dryadeus</i> and <i>Ganoderma adpersum</i> on lower main stem</li> <li>• Bulging of lower main stem indicates decay;</li> <li>• Opening with cavity on north-eastern side of main stem at c4m above ground level;</li> <li>• Various branch failure points within canopy.</li> </ul>					

Site survey details					
Site Ref:	SA-2	Surveyor:	R. Toll		
Area:	Cobham	Date:	7/8/18		
Species	English Oak	Tree No:	T2		
1 <sup>st</sup> Phase qualifying criteria					
Girth (m) at 1.5m above ground level	3.76	Ancient		Veteran	✓
2nd Phase qualifying criteria					
<p>Any tree that meets the qualifying stem girth for a veteran tree as shown in figure 1 must achieve at least 6 criteria.</p> <p>Any tree with a girth within 300mm of the qualifying stem girth for a veteran tree (as shown in figure 1) can be recorded as a veteran but only if it meets all 10 criteria.</p> <p>E.g. An oak with a stem girth of 3.45m and with all 10 criteria ticked can recorded as a veteran.</p>					
Major trunk cavities.	✓	Physical damage to trunk.	✓		
Naturally forming water pools.		Bark loss.	✓		
Decay holes.	✓	Considerable deadwood in canopy.	✓		
Sap runs.	✓	Crevices in the bark, under branches or on the rootplate sheltered from direct rainfall.	✓		
Fungi.		An old look.	✓		
General notes:					
<ul style="list-style-type: none"> <li>• Opening with cavity on eastern side of main;</li> <li>• Bark damage on southern side of main stem between ground level and 2m;</li> <li>• Damage to buttresses all round lower main stem;</li> <li>• No fungi observed however it cannot be discounted.</li> </ul>					

Site survey details					
Site Ref:	SA-2	Surveyor:	R. Toll		
Area:	Cobham	Date:	7/8/18		
Species	English Oak	Tree No:	T3		
1 <sup>st</sup> Phase qualifying criteria					
Girth (m) at 1.5m above ground level	5.20	Ancient	✓	Veteran	
2nd Phase qualifying criteria					
<p>Any tree that meets the qualifying stem girth for a veteran tree as shown in figure 1 must achieve at least 6 criteria.</p> <p>Any tree with a girth within 300mm of the qualifying stem girth for a veteran tree (as shown in figure 1) can be recorded as a veteran but only if it meets all 10 criteria.</p> <p>E.g. An oak with a stem girth of 3.45m and with all 10 criteria ticked can recorded as a veteran.</p>					
Major trunk cavities.	✓	Physical damage to trunk.	✓		
Naturally forming water pools.		Bark loss.		✓	
Decay holes.	✓	Considerable deadwood in canopy.		✓	
Sap runs.		Crevices in the bark, under branches or on the rootplate sheltered from direct rainfall.		✓	
Fungi.	?	An old look.		✓	
General notes:					
<ul style="list-style-type: none"> <li>• Considerable moderate deadwood;</li> <li>• Various branch wounds on main stem and in canopy;</li> <li>• Cavity in main stem with hollowing under buttressing;</li> <li>• No fungi observed however it cannot be discounted.</li> </ul>					

Site survey details					
Site Ref:	SA-52	Surveyor:	R. Toll		
Area:	West End Green	Date:	14/8/18		
Species	English Oak	Tree No:	T4		
1 <sup>st</sup> Phase qualifying criteria					
Girth (m) at 1.5m above ground level	Circa >3.45	Ancient		Veteran	✓
2nd Phase qualifying criteria					
<p>Any tree that meets the qualifying stem girth for a veteran tree as shown in figure 1 must achieve at least 6 criteria.</p> <p>Any tree with a girth within 300mm of the qualifying stem girth for a veteran tree (as shown in figure 1) can be recorded as a veteran but only if it meets all 10 criteria.</p> <p>E.g. An oak with a stem girth of 3.45m and with all 10 criteria ticked can recorded as a veteran.</p>					
Major trunk cavities.	✓	Physical damage to trunk.	✓		
Naturally forming water pools.	✓	Bark loss.			
Decay holes.	✓	Considerable deadwood in canopy.	✓		
Sap runs.	✓	Crevices in the bark, under branches or on the root plate sheltered from direct rainfall.			
Fungi.	✓	An old look.	✓		
General notes:					
<ul style="list-style-type: none"> <li>• Cavity in main stem;</li> <li>• Sap runs down main stem;</li> <li>• Decay fungus Beefsteak Fungus (<i>Fistulina Hepatica</i>) observed on main stem.</li> </ul>					

Site survey details					
Site Ref:	LA-70	Surveyor:	R. Toll		
Area:	Imber Court, Esher	Date:	21/8/18		
Species	English Oak	Tree No:	T5		
1 <sup>st</sup> Phase qualifying criteria					
Girth (m) at 1.5m above ground level	3.45	Ancient		Veteran	✓
2nd Phase qualifying criteria					
<p>Any tree that meets the qualifying stem girth for a veteran tree as shown in figure 1 must achieve at least 6 criteria.</p> <p>Any tree with a girth within 300mm of the qualifying stem girth for a veteran tree (as shown in figure 1) can be recorded as a veteran but only if it meets all 10 criteria.</p> <p>E.g. An oak with a stem girth of 3.45m and with all 10 criteria ticked can recorded as a veteran.</p>					
Major trunk cavities.	✓	Physical damage to trunk.	✓		
Naturally forming water pools.	✓	Bark loss.			
Decay holes.	✓	Considerable deadwood in canopy.			
Sap runs.	✓	Crevices in the bark, under branches or on the rootplate sheltered from direct rainfall.	✓		
Fungi.	✓	An old look.	✓		
General notes:					
<ul style="list-style-type: none"> <li>• Heavily reduced;</li> <li>• Deadwood probably removed when reduction works were undertaken;</li> <li>• Major cavity within trunk;</li> <li>• Significant decay noted in primary limbs;</li> <li>• Evidence of decay fungus, possibly Chicken of the Woods (<i>Laetiporus sulphureus</i>) on main stem.</li> </ul>					

Site survey details					
Site Ref:	LA-51	Surveyor:	R. Toll		
Area:	Oatlands Park	Date:	23/8/18		
Species	Sweet Chestnut	Tree No:	T6		
1 <sup>st</sup> Phase qualifying criteria					
Girth (m) at 1.5m above ground level	5.10	Ancient	✓	Veteran	
2nd Phase qualifying criteria					
<p>Any tree that meets the qualifying stem girth for a veteran tree as shown in figure 1 must achieve at least 6 criteria.</p> <p>Any tree with a girth within 300mm of the qualifying stem girth for a veteran tree (as shown in figure 1) can be recorded as a veteran but only if it meets all 10 criteria.</p> <p>E.g. An oak with a stem girth of 3.45m and with all 10 criteria ticked can recorded as a veteran.</p>					
Major trunk cavities.	✓	Physical damage to trunk.	✓		
Naturally forming water pools.	✓	Bark loss.	✓		
Decay holes.	✓	Considerable deadwood in canopy.	✓		
Sap runs.	✓	Crevices in the bark, under branches or on the rootplate sheltered from direct rainfall.	✓		
Fungi.	✓	An old look.	✓		
General notes:					
<ul style="list-style-type: none"> <li>• Pollarded at 6m;</li> <li>• Woodpecker holes throughout;</li> <li>• <i>Fistulina hepatica</i> fungus throughout structure;</li> <li>• Large areas of exposed wood;</li> <li>• Significant cavities.</li> </ul>					

Site survey details					
Site Ref:	LA-14	Surveyor:	R. Toll		
Area:	Knowle Hill Park Cobham	Date:	4/9/18		
Species	English Oak	Tree No:	T7		
1 <sup>st</sup> Phase qualifying criteria					
Girth (m) at 1.5m above ground level	3.94	Ancient		Veteran	✓
2nd Phase qualifying criteria					
<p>Any tree that meets the qualifying stem girth for a veteran tree as shown in figure 1 must achieve at least 6 criteria.</p> <p>Any tree with a girth within 300mm of the qualifying stem girth for a veteran tree (as shown in figure 1) can be recorded as a veteran but only if it meets all 10 criteria. E.g. An oak with a stem girth of 3.45m and with all 10 criteria ticked can recorded as a veteran.</p>					
Major trunk cavities.	✓	Physical damage to trunk.			✓
Naturally forming water pools.		Bark loss.			✓
Decay holes.	✓	Considerable deadwood in canopy.			
Sap runs.		Crevices in the bark, under branches or on the rootplate sheltered from direct rainfall.			✓
Fungi.	✓	An old look.			✓
General notes:					
<ul style="list-style-type: none"> <li>• Large historical branch failure wound with cavity on the eastern side of the main stem showing evidence of brown rot decay fungus. Brown rot decay fungus is associated with <i>Laetiporus sulphureus</i> and <i>Fistulina hepatica</i> which are commonly found on Oak.</li> <li>• Canopy has been historically reduced;</li> <li>• This tree is already under the protection of a TPO.</li> </ul>					



Site survey details					
Site Ref:	LA-51	Surveyor:	R. Toll		
Area:	Oatlands Park	Date:	23/8/18		
Species	Sweet Chestnut	Tree No:	T8		
1 <sup>st</sup> Phase qualifying criteria					
Girth (m) at 1.5m above ground level	4.9	Ancient	✓	Veteran	
2nd Phase qualifying criteria					
<p>Any tree that meets the qualifying stem girth for a veteran tree as shown in figure 1 must achieve at least 6 criteria.</p> <p>Any tree with a girth within 300mm of the qualifying stem girth for a veteran tree (as shown in figure 1) can be recorded as a veteran but only if it meets all 10 criteria.</p> <p>E.g. An oak with a stem girth of 3.45m and with all 10 criteria ticked can recorded as a veteran.</p>					
Major trunk cavities.	✓	Physical damage to trunk.	✓		
Naturally forming water pools.	✓	Bark loss.	✓		
Decay holes.	✓	Considerable deadwood in canopy.			
Sap runs.	✓	Crevices in the bark, under branches or on the rootplate sheltered from direct rainfall.	✓		
Fungi.	?	An old look.	✓		
General notes:					
<ul style="list-style-type: none"> <li>• Canopy has had reduction works undertaken to it;</li> <li>• Evidence of cavities in main stem;</li> <li>• No fungi present at time of survey however cannot be ruled out;</li> </ul>					

Photos of recorded trees

T1 - Veteran



T2 - Veteran



### T3 - Veteran



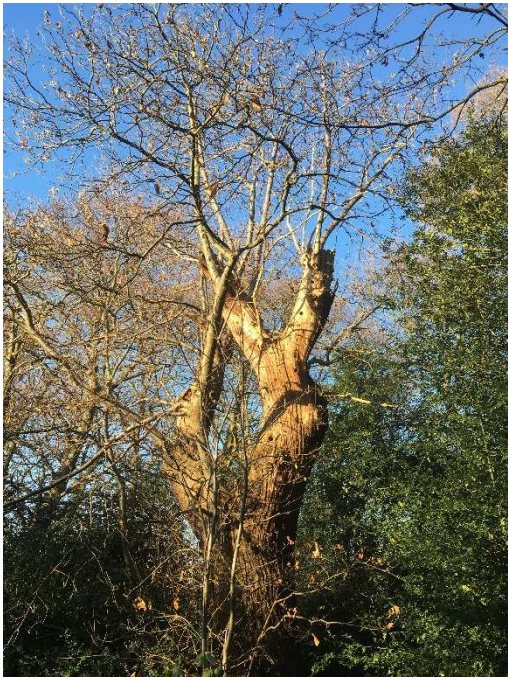
### T4 - Veteran



**T5 - Veteran**



**T6 - Ancient**



**T7 - Veteran**



**T8 - Ancient**



**Bibliography**

David Lonsdale – Editor et al. February 2013. Ancient and other veteran trees: further guidance on management. The Tree Council. 71 Newcomen Street, London, SE1 1YT.

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