



## **Guidance on managing ancient and other veteran trees**

To sustain the lives of ancient and other veteran trees, it's vital that the trees and land around them are properly cared for by their owners, and by those managing them.

### **Considerations before undertaking management**

When undertaking any management on veteran trees the overarching aim should be to keep trees alive for as long as possible, whilst maintaining the values these trees offer. It should be borne in mind that the best management option may be to 'do nothing'.

If management is considered necessary, clearly identifying the actual and potential threats to veteran trees is essential to enable appropriate management to take place. Once you have an appreciation of the management needs, and desired outcomes, a suitable management specification can be produced to meet the identified needs.

Management for the sake of management, or the need to be seen 'doing something' should be avoided as unnecessary management can be detrimental to the tree and place unnecessary financial demands on the tree owner/manager.

With this in mind, the default position should consider a 'do nothing' approach first and only if this is considered likely to have a detrimental effect on the tree should active management take place. When active management is undertaken consideration should be given to managing the surrounding land as the next step. Finally (and only when absolutely necessary) should management involve cutting a veteran tree.

### **Management challenges**

Veteran trees present a unique set of management challenges which differ from conventional arboriculture. These challenges often reflect current or historic changes in management practices that affect the tree or its surroundings. These changes in land management should be identified and considered when prescribing management recommendations. The following tables set out a number of common examples of management challenges, potential solutions and links to further guidance. These challenges have been split into three sections: Management of land surrounding veteran trees, Management to prevent structural failure and Continuation of traditional

management practices.

### Management of land surrounding veteran trees

Management Challenges	Potential Solutions	Resources
Damage caused by grazing or browsing animals.	<ul style="list-style-type: none"> <li>• Reduce stocking densities.</li> <li>• Installation of barriers to prevent livestock access to and beneath trees.</li> <li>• Citing of food/water troughs away from trees.</li> <li>• Provision of alternative shelter for livestock.</li> </ul>	<a href="#">VETree video: The importance of the land around veteran trees.</a> <a href="#">Ancient Tree Guide: Trees and Farming.</a> Chapter 3.2 of <a href="#">Ancient and other veteran trees further guidance on management (AoVM book).</a>
Excessive shade cast on veteran tree.	<ul style="list-style-type: none"> <li>• Clear vegetation around trees to reduce competition for light (known as halo clearance).</li> </ul>	<a href="#">VETree video: Halo clearance for veteran trees.</a> Chapter 3.4.1.1 of <a href="#">AoVM Book.</a>
Damage to rooting area caused by agricultural practices such as ploughing or use of artificial fertilizers or pesticides.	<ul style="list-style-type: none"> <li>• Identify root protection zone and prevent harmful activities within this area. The radius of the root protection zone should measure 15 times the diameter of the trunk or 5 meters beyond the canopy (whichever is greater).</li> </ul>	<a href="#">VETree video: The importance of the land around veteran trees.</a> <a href="#">Ancient Tree Guide: Trees and Farming.</a> Chapter 3.3 of <a href="#">AoVM Book.</a>
Compaction of rooting area caused by vehicular or pedestrian traffic, building/construction work, etc.	<ul style="list-style-type: none"> <li>• Identify root protection zone and prevent harmful activities within this area. The radius of the root protection zone should measure 15 times the diameter of the trunk or 5 meters beyond the canopy (whichever is greater).</li> </ul>	<a href="#">VETree video: The importance of the land around veteran trees.</a> <a href="#">Ancient Tree Guide: Trees and Events.</a> Chapter 3.5.3.1 and 3.6 of <a href="#">AoVM Book.</a>
Fear of damage to persons or property (e.g. greenhouse, picnic bench).	<ul style="list-style-type: none"> <li>• Move the sensitive item away from tree, where possible, to prevent damage.</li> </ul>	<a href="#">VETree video: Common sense risk management of veteran trees.</a> Chapter 3.5 of <a href="#">AoVM Book.</a>

### Management to prevent structural failure

Management Challenges	Potential Solutions	Resources
Potential failure of root plate,	<ul style="list-style-type: none"> <li>• Crown reduction/reduction of the length of limbs to reduce</li> </ul>	<a href="#">VETree video: Techniques for crown reducing a veteran</a>

main trunk or large limb.	<p>biomechanical forces acting on the tree. It may be appropriate to undertake a phased reduction over a number of years to minimise the number and size of cuts and encourage growth lower in the crown.</p> <ul style="list-style-type: none"> <li>• Propping or support heavy limbs.</li> <li>• Bracing of trunk or limbs to prevent failure.</li> </ul>	<p><a href="#">tree.</a> Chapter 4 of <a href="#">AoVM Book.</a></p>
Potential failure of large re-growth on lapsed pollard (a tree once frequently cut but no longer managed in this way).	<p>For trees which were once regularly cut but this management has long since been abandoned the re-growth may be of such a large size that it causes concern of failure. It would not be appropriate to cut back to the original cutting point due to the large number and size of the wounds created. Options to reduce the risk of branch failure include:</p> <ul style="list-style-type: none"> <li>• Crown reduction/reduction of the length of limbs to reduce biomechanical forces acting on the tree. It may be appropriate to undertake a phased reduction over a number of years to minimise the number and size of cuts and encourage growth lower in the crown.</li> <li>• Pole thinning (removal of select branches) as an alternative means of reducing biomechanical forces acting on the tree.</li> </ul>	<p><a href="#">VETree video: Techniques for crown reducing a veteran tree.</a> Chapter 4 of <a href="#">AoVM Book.</a></p>

### Continuation of traditional management practices

Management Challenges	Recommendations	Resources
Tree in regular cycle of cutting (e.g. pollarding or coppicing).	<ul style="list-style-type: none"> <li>• Continue with existing management practices (length of cycle and cutting techniques to be maintained).</li> </ul>	<p><a href="#">VETree video: Management of pollards still in a regular cycle of cutting.</a> Chapter 4 of <a href="#">AoVM Book.</a></p>

### Minimising the negative impacts of management works

Before any management work is undertaken it is essential to consider how the tree will respond to the management and identify techniques which can minimise the negative impacts of management. Trees are long lived organisms and it is often appropriate to phase work over a period of a number of years. Phasing work has many benefits as it minimises the number and size of pruning wounds created during any one operation, gives the tree chance to adapt to the changes brought about by management and allows the tree's response to pruning to be monitored and thus allows modification to management regimes if needed.

The tables below provide a number of considerations when undertaking management, focusing on the tree's likely response to management and measures to help minimise the potential adverse impact of management work.

<b>The Tree's likely response to management</b>		
<b>Considerations</b>		<b>Options</b>
Tree vitality.	<ul style="list-style-type: none"> <li>• Is the tree growing well with dense foliage of a size and colour typical for the species?</li> <li>• Has the tree responded well to previous pruning or natural damage?</li> <li>• Have other trees of the same species on the same site responded well to pruning or natural damage?</li> </ul>	<ul style="list-style-type: none"> <li>• If the tree exhibits reduced vitality, undertake a small amount of pruning and assess result. If the tree (or trees of the same species) shows a poor response to previous pruning or damage, undertake a small amount of pruning and assess result. The result can guide future pruning, if appropriate.</li> <li>• Phase work over a number of years to avoid stressing the tree too much during one operation.</li> </ul>
Form of the crown.	<ul style="list-style-type: none"> <li>• Is there a framework of branches in the mid to lower crown that could form a residual crown of good density after height reduction?</li> </ul>	<ul style="list-style-type: none"> <li>• If the tree lacks a good framework of branches that could form a residual crown the most appropriate approach would be to phase the work over a number of years to provide the tree time to respond and develop a lower canopy.</li> </ul>
Burr, epicormic growth or dormant buds.	<ul style="list-style-type: none"> <li>• Does the tree have burrs, good epicormic growth or obvious abundant dormant buds?</li> </ul>	<ul style="list-style-type: none"> <li>• Absence of these may suggest a reduced likelihood of a good pruning response. Phase work over a number of years to avoid stressing the tree too much during one operation.</li> <li>• Pruning should seek to retain a high proportion of existing leaves/buds to maintain existing connections with roots.</li> </ul>

Timing of pruning.	<ul style="list-style-type: none"> <li>• How can work be timed to reduce the burden on the tree's energy supplies?</li> <li>• Does the species suffer from specific pest (e.g. powdery mildew of oak)</li> </ul>	<ul style="list-style-type: none"> <li>• Pruning should generally be avoided when new foliage is developing and maturing in spring and early summer and also when the tree is entering dormancy in the autumn.</li> <li>• Pruning to take account of species specific pests (e.g. sites where powdery oak mildew is a problem, prune trees during winter months).</li> </ul>
Recent weather conditions.	<ul style="list-style-type: none"> <li>• Have there been any recent weather conditions (e.g. drought or flood) which may increase stress to the tree?</li> </ul>	<ul style="list-style-type: none"> <li>• Delay works until conditions improve if recent climatic conditions will place undue stresses on tree.</li> </ul>
Shade.	<ul style="list-style-type: none"> <li>• Following pruning will sufficient light reach the cuts areas to stimulate new growth?</li> </ul>	<ul style="list-style-type: none"> <li>• Ensure sufficient light reaches the tree by managing density of crown or managing surrounding vegetation.</li> </ul>

### Measures to help minimise the potential adverse impact of management work

Considerations	Explanation	Solutions
Reduce emissions.	Emissions from combustion engines on chainsaws and other machinery have the potential to harm veteran trees when they come into contact with bark and leaves or organisms which live upon veteran trees (e.g. lichens).	<ul style="list-style-type: none"> <li>• Use hand tools when undertaking minor pruning operations such as small crown reductions.</li> <li>• Use battery powered chainsaws where possible.</li> <li>• Where battery powered saws are impracticable due to the extent of pruning, the use of alkylate petrol (e.g. Aspen fuel) is likely to have less of a detrimental effect on the tree than standard petrol.</li> <li>• Alternative treatment of brash from pruning work (e.g. retention on site) reduces the need for a wood-chipper therefore reducing emissions.</li> </ul>
Use of natural, biodegradable oils.	When cutting with a chainsaw a certain amount of chain lubricant will come into contact with the tree. This has potential to harm veteran trees.	<ul style="list-style-type: none"> <li>• The use of vegetable oils, rather than mineral oil, to lubricate the chain can help minimise adverse impacts.</li> </ul>
Avoidance of spillages within rooting area.	Fuels, lubricant oils and other chemicals can have an adverse impact upon the soil and rooting environment if spilt.	<ul style="list-style-type: none"> <li>• Store fuels and oils outside of rooting area (15x trunk diameter or 5m beyond drip line – whichever is greatest).</li> <li>• Use of suitable fuel and oil cans to prevent spillages.</li> <li>• Use of fuel mat to catch and/or a spill kit to absorb any spillages.</li> </ul>

Avoidance of vehicular movement within the rooting area of the tree.	Soil compaction caused by the use of heavy machinery within the rooting area of the tree has the potential to damage the soil structure, leading to conditions which restrict root growth, and damage or kill roots, resulting in harm to the tree.	<ul style="list-style-type: none"> <li>• Avoid using any vehicles within the rooting area of the tree.</li> <li>• Where vehicles are needed (e.g. a Mobile Elevated Work Platform), tracked machines or ground protection boards should be used to limit soil compaction.</li> </ul>
Alternative treatment of brash and wood arisings from tree pruning.	Standard arboricultural practice for arisings (brash or wood) is to remove these from site; this is typically borne out of a desire for tidiness. However this typically requires the need for additional machinery, such as wood-chippers and vans, the use of which near to a veteran tree has greater potential for causing damage (soil compaction, additional risk of pollution exhaust fumes and spillages).	<ul style="list-style-type: none"> <li>• Retain arisings on site. This has the added benefit of recycling nutrients as material decomposes. If the material is corralled along the drip line it can help restrict access beneath the tree (this may be useful on sites where livestock damage is an issue and can help move the target for risk management purposes).</li> </ul>

## Additional Resources

The ancient tree forum website has a range of resources on the topic of veteran tree management, in addition to those listed above. These can be downloaded from the resources page of the Ancient Tree Forum website ([www.ancienttreeforum.co.uk/resources/](http://www.ancienttreeforum.co.uk/resources/))

### Veteran Tree Handbooks

- Ancient and other veteran trees: further guidance on management (2013).
- Veteran Trees: A guide to good management (2000).

### VETree Videos: Practical management of veteran trees (2014)

There are a series of seven videos demonstrating the practical management of veteran tree, including:

- Techniques for crown reducing a veteran tree;
- Halo clearance for veteran trees;
- The importance of the land around a veteran tree;
- Common sense risk management of veteran trees;

- Creation of decaying wood habitats;
- Management of veteran fruit trees;
- Management of veteran pollards still in a regular cycle of cutting.

#### Ancient Tree Guides

There are a total of eight guides that provide an introduction to a range of topics including:

- Trees and farming (2005);
- Trees in historic parks and landscape gardens (2008);
- Trees and development (2011);
- What are ancient, veteran and other trees of special interest (2008);
- Trees and climate change (2008);
- The special wildlife of trees (2009);
- Trees for the future (2009);
- Trees and events (2012).

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