



Onetree Arboreal

**Risk Assessment & Method Statement for arboricultural operations (including 'veteranisation for safety')  
at Killiechonate Estate, July-August 2022.**

## Introduction.

Following a recent meeting with Jonathan Hart at Killiechonate Estate Office (30<sup>th</sup> May, 2022), a mature Ash tree, approximately 25-30m in height, and overhanging single storey structures adjacent to the main lodge house, was identified as being in decline due to Ash 'Dieback Disease' (*Chalara fraxinea*). It is my recommendation that this tree receive appropriate hazard mitigation work within 12 months of this identification date, to prevent any chance of larger branches collapsing onto the building, and whilst the tree retains sufficient structural integrity to allow operations that involve tree-climbing.

Either the tree should be removed in its entirety, or veteranisation work should be carried out to significantly reduce the tree canopy. This is an alternative management process to traditional arboricultural responses, for reasons described below. Regardless of the mitigation method selected by Jahama in preference, care must be taken to assess the tree for the presence of resident wildlife, and a methodology endorsed by NatureScot (SNH) is also detailed below.

Veteranisation of trees, put simply, is to utilise arboricultural pruning techniques that, rather than remove trees from the woodland in their entirety, reduce them to monolith structures that have minimal wind resistance. The pruning techniques themselves, referred to as 'destructive pruning', involve simulating natural storm damage, crown retrenchment, decay and structural failure on target trees.

This actively creates new habitat niches for invertebrates, birds, small mammals, lichens and brachophytes, whilst removing brittle deadwood or unbalanced timber from the tree crowns that make them susceptible to wind-storms. It also encourages more diverse regeneration of woodland floor areas by allowing sunlight to penetrate the canopy in locations, and at times of the year, where it may have been absent for decades.

Photo file records of veteranisation work on Beech trees, carried out at the Woodland Trust Loch Arkaig site is available from Onetree Arboreal upon request. This evidences the range and variety of techniques used to directly facilitate wildlife and biodiversity.

## **Methodology for minimizing disturbance to nesting birds, bats, mammals and invertebrates.**

1. A pre-operational survey of all the target trees shown on the attached map will be undertaken, prior to any veteranisation work between March 1<sup>st</sup> and September 30<sup>th</sup>, 2022. This will also include any other trees/vegetation within a 20m radius of the target tree for evidence of breeding wildlife. The results will be recorded.
2. This pre-operational survey will always take place within one week of anticipated work dates, and will inform which target trees should be avoided due to active nesting or roosting.
3. All trees identified as being potential bat roost sites will be referred to Mark Robinson, Arborteering Ltd., for a comprehensive bat survey to inform the timing of operations. No works on these target trees will take place before he is satisfied it is appropriate.
4. On each scheduled work date, operatives on site will spend 30 minutes observing the area for wildlife activity to inform how operations can proceed.
5. Active nesting in target trees not previously recorded will initiate moving to another work site, and active nesting in the 20m vicinity zone will be monitored for any perceived adverse effect caused by works creating a disturbance. This will also initiate moving to another work site.
6. Wherever possible, work sites will be organized so that a buffer of trees and/or vegetation is maintained between target trees and adjacent nesting sites.
7. Wherever possible, hand tools (pruning saws, loppers, billhooks) and battery powered, top-handle chainsaws will be used for veteranisation processes to minimize noise in the woodland. Regular breaks in the work pattern will also take place with this in mind. Petrol chainsaws will only be used as last resort for heavy timber processing.
8. Brash arising from veteranisation of target trees will be used to create additional habitat niches by stacking and mulching in designated, safe areas close by. No use of woodchippers will be made unless emergency work at roadside is required.
9. Heavy timber arising from the works will be stacked on site for storage/processing in designated off-site locations.
10. Review of each target tree operation will include collecting photographic evidence of 'before and after', and recording the presence of wildlife observed at the time. This can inform future observations of the monolith structures created by the work.

# Onetree Arboreal

## for all professional tree care and surgery

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**RISK ASSESSMENT: 06/07/2022**

**Task:** Tree veteranisation work to large Ash tree at Killiechonate Lodge

**Site Name:** Killiechonate

**Location:** Lochaber NN 24184 81128

**Nearest A&E:** Belford Hospital, Fort William 01397 702481

**Mobile Signal: Fair** - most networks available/emergency calls possible on all sites

<b>TRAINING / SUPERVISION</b>	Review site risk assessment and brief personnel on risks & controls before work starts. All staff/sub-contractors to sign risk assessment register prior to commencing work. Keep records for individual projects on file. Accidents to be recorded in accident book.
<b>EQUIPMENT &amp; PPE REQUIRED &amp; LONE WORKING STIPULATION</b>	Climbing equipment as specified under NPTC CS 38/39 Tree Climbing & Aerial rescue training, chainsaw protection trousers, helmets with eye & hearing protection, Hi-viz jackets and gloves to be worn by all. Chainsaws as appropriate to task, LOLER certified lowering equipment and Tirfor -type winches, and appropriate hazard signage to define working areas. <b>NO LONE WORKING TO BE UNDERTAKEN AT ANY TIME.</b>

COMMON HAZARDS Associated with the work activity	WHO IS AT RISK? Public, staff, trainees, volunteers, children	RISK RATING Risk level before controls are in place	CONTROL MEASURES Existing measures in place before work is allowed to start	RESIDUAL RISK Remaining risk after controls are in place
Injury falling from height	Climbers, ground crew	medium	<ul style="list-style-type: none"> <li>All operators trained and certified</li> <li>Check tree structure and integrity of anchor points</li> <li>Avoid climbing tree if unsuitable/unstable</li> <li>All operators wear appropriate PPE</li> <li>Ground crew aware of climber positioning at all times</li> <li>All operators to read risk assessment</li> </ul>	low
Danger of climber becoming incapacitated on rope or hung-up	Climber	medium	<ul style="list-style-type: none"> <li>Ensure additional trained climber can be contacted and on site within reasonable time frame. Ensure appointed grounds person is on site at all times with functioning communications.</li> <li>Ensure mobile phone on site with GPS, map and group location is known by third party off-site with estimated time of return</li> <li>Define site location with map prior to access and ensure third party is aware of location</li> <li>Climbers to work within sight/communication distance of each other</li> </ul>	low
Use of Chainsaws working on the ground - kickback, flying debris, severe wounding, falling trees or timber, vibration injury, hearing injury	Climbers, ground crew	medium	<ul style="list-style-type: none"> <li>All operators trained and certified</li> <li>Appropriate PPE worn at all times - gloves, helmet with visor and hearing protection and trousers rated minimum 20m/s</li> <li>Appropriate First Aid provision on site and rescue plan agreed</li> <li>All tools and equipment checked for good working condition prior to use</li> </ul>	low

			<ul style="list-style-type: none"> <li>• Designated tool and fuel storage location identified and used</li> <li>• 5m clear working zones established around chainsaw operators</li> <li>• 2 tree lengths rule in place for felling work</li> <li>• Hearing and eye protection provided to work party in vicinity zone of risk</li> <li>• Clear work plan identified for all tasks and communicated to work party in advance</li> <li>• Appropriate inspection of trees and timber carried out prior to work commencing</li> </ul>	
Use of Chainsaws working at height – severing of ropes, kickback, flying debris, severe wounding, falling timber, vibration injury, hearing injury, crown collapse	Climbers, ground crew	medium	<ul style="list-style-type: none"> <li>• All operators trained and certified</li> <li>• Appropriate PPE worn at all times – gloves, helmet with visor and hearing protection and trousers rated minimum 20m/s</li> <li>• Appropriate First Aid provision on site and rescue plan agreed</li> <li>• Ground crew rescuer within hearing range at all times, maintaining safe vicinity zone (tree canopy area)</li> <li>• Chainsaws raised and lowered to operator by ground crew as required – appropriate tool lanyard used at all times</li> <li>• All tools and equipment checked for good working condition prior to use</li> <li>• Designated tool and fuel storage location identified and used</li> <li>• Hearing and eye protection provided to work party in vicinity zone of risk</li> <li>• Clear work plan identified for all tasks and communicated to work party in advance</li> <li>• <b>Appropriate inspection of trees and timber carried out prior to work commencing</b></li> </ul>	low
Use of pole saws and pruning rods – cuts and abrasions, falling timber, falling equipment	Climbers, ground crew	medium	<ul style="list-style-type: none"> <li>• All operators trained and certified</li> <li>• Appropriate PPE worn at all times – gloves and helmet with eye protection</li> <li>• Appropriate First Aid provision on site</li> <li>• All tools and equipment checked for good working condition prior to use</li> <li>• Directional vicinity zone established (falling distance of rods) for safe working</li> <li>• Clear work plan identified for all tasks and communicated to work party in advance</li> <li>• Appropriate inspection of trees and timber carried out prior to work commencing</li> </ul>	low
Equipment failure	Climbers, ground crew	medium	<ul style="list-style-type: none"> <li>• ICOP Work at Height referenced for all climbers</li> <li>• Visual checks of equipment at every use</li> <li>• Worn/ damaged equipment withdrawn from service</li> <li>• Inspection and written record of individual climbing &amp; lowering equipment carried out bi-annually</li> </ul>	low
Cutting injury from knife, silky saw, cordless drill	Climbers, ground crew	medium	<ul style="list-style-type: none"> <li>• Correct PPE worn at all times – gloves</li> <li>• Tools attached to lanyard at all times working position allows</li> <li>• Use correct cutting technique</li> <li>• Appropriate First Aid provision on site</li> </ul>	low
Falling objects, tools, branches	Climbers, ground crew	medium	<ul style="list-style-type: none"> <li>• All operators trained and certified</li> </ul>	low

			<ul style="list-style-type: none"> <li>ID hazard areas for ground crew – correct PPE worn - helmets</li> <li>Maintain good site communication</li> <li>Use appropriate tool lanyards</li> </ul>	
Awkward movements when working in tree	Climbers	low	<ul style="list-style-type: none"> <li>Use supplementary anchors</li> <li>Maintain good climbing technique</li> <li>Manage rope routing to ensure best working position</li> </ul>	low
Slips, trips & falls on uneven ground	Climbers, ground crew	medium	<ul style="list-style-type: none"> <li>Suitable footwear for weather &amp; ground conditions</li> <li>Plan safe access and egress to work site</li> <li>Highlight serious slip / trip hazards relative to site</li> <li>Designate area to store tools / equipment &amp; waste</li> </ul>	low
Adverse weather	Climbers, ground crew	medium	<ul style="list-style-type: none"> <li>Suitable clothing for variable conditions</li> <li>Stop work in extreme / hazardous weather</li> </ul>	low
Fatigue, Alpha State	Climbers, ground crew	medium	<ul style="list-style-type: none"> <li>Take breaks – plan work in increments – share tasks</li> <li>Keep appropriately hydrated and nourished</li> </ul>	low
Potential drowning	Climbers, ground crew	medium	<ul style="list-style-type: none"> <li>Be aware of fast flowing rivers, deep standing water and keep a safe distance. Small stream can increase in size very quickly in heavy rain, be aware of this when working remotely.</li> </ul>	low
Vehicle Traffic	Ground Crew, Drivers	medium	<ul style="list-style-type: none"> <li>Appropriate warning signage along forest road access where needed/road closed temporarily when needed</li> <li>Liaise with HC Roads Officer as and when required</li> <li>Arboricultural works pause as vehicle movements proceed whenever possible</li> <li>Grounds staff stop traffic temporarily until procedures are completed/road cleared of debris, whenever required</li> </ul>	low
Walkers, MTB Riders, Deer Stalkers	Ground Crew, Pedestrians	medium	<ul style="list-style-type: none"> <li>Appropriate warning signage along forest road access where needed/road closed temporarily when needed</li> <li>Liaise with KCT/Jahama/HC Access Officer as and when required</li> <li>Arboricultural works pause as pedestrian movements proceed whenever possible</li> <li>Grounds staff stop pedestrians temporarily until procedures are completed/road cleared of debris, whenever required</li> </ul>	low

**Site supervisor name and contact details: Iain Jenner - 07923 675593 Secondary contact: Koa Bowyer - 07766 097845**  
**Emergency Services (contact Mountain Rescue via Police 999)**  
**Killiechonate Estate Office: 01397 713882**  
**Emergency site evacuation points: Killiechonate Lodge carpark**

**For further information, please contact:**

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