BCA Tree Management Strategy

For the attention of:	All Staff
Produced by:	Director of Estates
Approved by:	SLT
Date of publication:	July 2025
Date of next review:	July 2027

WINDSOR FOREST COLLEGES GROUP

Vision, Purpose & Values

Our Vision

Our students will be recognised locally & nationally for their positive impact on the communities and industries in which they choose to work.

Our Purpose

To inspire our students to gain the skills, knowledge and behaviours they need to be resilient and thrive in an ever-changing world.

Our Values

Excellence: A culture of creativity, high expectations, ambition and aspiration

Respect: Showing fairness, courtesy and mutual respect to each other and our environment

Integrity: Honesty, openness and trust at the heart of College life

Diversity: Celebrating diversity and inclusivity as a key to our success

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Introduction

Berkshire College of Agriculture (BCA) is a Further Educational College situated within the historic grounds of Hall Place. The 184ha college estate consists of permanent pasture, temporary grass leys, combinable crops, woodland, parkland, short rotation coppice, sports pitches, lawns, gardens and general amenity areas. The estate and campus is managed for our 1500 full time students and apprentices directly for their course requirements and indirectly as a part of the backdrop to their studies.

The majority of the estate is a grade II listed parks and gardens with the grade I mansion centrally located within it. The BCA estate has a rich sylvan landscape with a wealth of historic plantings and features.

This provides many benefits –

- Social – trees enhance the amenity environment through the variety of textures, form and colour. They may be used to enhance views or mask undesirable features and provide focal meeting points. They are proven to reduce stress and improve mental health.

- Environmental – trees are vital for carbon sequestration, they remove gaseous air pollutants such as ozone and nitrous oxides, and particulate matter such as soot and smoke and in turn release oxygen. They reduce noise perception, provide precipitation interception and neutralise temperatures in hard landscaped areas. They provide important shade during periods of high temperatures and reduce wind speeds.

- Historical- the commemorative plantings, formal avenues and Victorian planting schemes are symbolic of the fashion, designs and tree species available in centuries past. Parkland, veteran, lapsed pollards and mature field boundary trees are indicative of previous land management and provide living history as the relics of historic practices.

There are also impacts and risks-

- Damage to property- trees may cause damage from falling branches, windthrow/snap of whole trees, dislodging of tiles/gutters/overground wires, clogging of drains/culverts with leaf litter causing flooding. Roots may cause blocking of water pipes, displacement and fracture of underground services, disruption to paved surfaces, subsidence and heave on shrinkable clay soils.

- Damage to persons- trees may cause damage from falling branches, windthrow/windsnap of whole trees and trip hazards from disruption to paved surfaces

- Nuisance issues – trees can cause nuisance issues from excessive shade, leaf litter, blossom and pollen.

Trees are an integral feature of the green and diverse landscape of BCA. They provide many benefits that enhance students' experience and the college work environment, whilst making the college campus unique. Future management of the BCA tree stock is essential to provide benefits for future students. The risks and impacts posed by the trees need to be actively managed to reduce the potential danger posed to persons and property to acceptable levels.

1. Aims of the Management Plan

- Identify the current tree resource
- Establish management principles for key areas
- Identify and prioritise estate and campus areas according to use
- Set out a procedure for tree inspections

2. Legal Designations

There are no current Tree Preservation Orders on any trees within the BCA estate.

The estate does not lie within the Burchetts Green conservation area or within an Area of Outstanding Natural Beauty.

The Parks and Gardens grade II listing recognises specific sylvan landscape features. Such features are not supported in statue law but instead form an additional consideration in relation to future planning and development.

The Wildlife and Countryside Act 1981 (as amended) and Species and Habitat Regulations 2010 provide protection for many species that are dependent upon the habitat provided by trees and woodland.

The Forestry Act 1967 (as amended) requires a felling license to be obtained for the felling of in excess of 5m³ timber per calendar quarter. Public amenity areas, private gardens and dangerous trees are exempt.

3. BCA Tree Stock

There are notable sylvan features and tree collections within the BCA estate.

3.1. Parkland

The land extending to the south, west and east of Hall Place was historically managed as a deer park. There is evidence that parkland was present in the late 17th and early 18th centuries, however, it is likely that this land use was established from a significantly earlier date. There are many trees associated with this former land use. Whilst many trees have certainly been lost, there are still considerable specimens in the parkland to the south west of Hall Place.

There are many mature and veteran oaks within the parkland remnant, most notably a *Quercus robur* specimen with a girth of 6.85m which suggests an age of approximately 500 years. There is much retention of standing deadwood and there has been considerable new planting of replacement trees over the last 30 years. There are clusters of ornamental and native species to the east and north of Hall Place which were planted in the 19th century as part of the parkland landscape, these clusters are now within areas of intensive agriculture or horse paddocks.

3.2. Ancient woodland

There are four small broadleaf woodlands on the estate. High woods (3.99 ha) is the sole woodland at BCA which is listed as ancient woodland in the Berkshire Ancient Woodland Inventory (1986). High wood was a typical high forest beech wood, it was devastated by the storms of 1987. It is now predominantly comprised of *Fraxinus excelsior* and *Acer pseudoplatanus*, with *Fagus sylvatica*, *Betula pendula* and *Prunus avium* contributing to the species composition.

3.3. Avenues – the three historic avenues to the north, east and south of the mansion form part of the grade II parks and gardens listing and are comprised of *Tilia* x *europaea* and *Tilia platyphyllos*.

3.4. The eastern avenue (main drive) is thought to have been planted circa 1690 and pre-dates the main Hall Place building, the lower part of the eastern avenue originates from 1875. The eastern avenue is complete and has benefited from a programme of replanting during the last 30 years. Many of the original specimens have been historically reduced and maintained as high pollards.

3.5. The southern avenue is thought to have been established circa 1690, but did not follow the complete length of the south drive. The majority of original trees have been removed and replaced with Tilia x europaea. Other species such as *Quercus robur* form part of the avenue.

3.6. The northern avenue is also thought to have originated from circa 1690. It follows from the mansion to the statue of Diana, goddess of hunting. The avenue was relatively complete until the mid- 20th century, since which the majority of the mature trees have been removed and replanted.

3.7. Further avenues. A partial avenue of *Tilia* x *europaea*, *Tilia platyphyllos*, *Tilia cordata*, *Quercus robur* and *Aesculus hippocastanum* was established in the 18th -19th century along the route of the northern access track towards the former gatehouse and the Henley road. Replacement trees have been planted in the last 10 years where the original trees have failed.

3.8. Battle of the Nile

Following the triumph of Horatio Nelson at the Battle of the Nile in 1798, a commemorative tree planting was established in the parkland to the south west of the mansion. The *Quercus cerris* planted next to a statue of Nelson survives, but the vast majority of the oaks have long since disappeared. A new planting was established in the 1990's in the formation of the English and French fleets, with each tree representing a ship.

3.9. Ornamental plantings

Ornamental trees and gardens to the west of Hall Place were established during the 18th century. There was a significant period of tree planting during the late 19th century, from which many trees still survive.

The back lawn area to the west of Hall Place was laid out in a symmetrical arrangement. Popular ornamental trees of the 18th–19th centuries, such as *Sequoiadendron giganteum*, *Liriodendron tulipifera*, *Quercus ilex*, *Platanus* × *acerifolia*, *Magnolia grandiflora* and *Aesculus hippocastanum* are still evident today. The back lawn tree plantings form part of the grade II parks and gardens listing, with specific trees being listed.

3.10. Recent plantings

Considerable numbers of trees have been planted in the amenity areas surrounding college buildings during the last 30-40 years. There are many unusual species and cultivars that are used by horticultural students directly for their curricular requirements.

4. Management Principles for Key Tree Collections

4.1. Parkland

The restoration of the parkland landscape in Pond Meadow, Fishponds, West Park, South Park and Pyramid is ongoing.

- Standing and fallen deadwood is to remain in situ unless blocking access routes.
- Retrenchment pruning is to be carried out to high value mature and veteran specimens where the undesirable loss of major limbs, or windthrow/windsnap is likely.
- Annual planting of 5-10 trees. A variety of appropriate species to ensure resilience to future threats. Species to be selected from – *Acer campestre*, *Acer* pseudoplatanus, *Carpinus betulus*, *Fagus sylvatica, Ilex aquifolium, Malus sylvestris*, *Prunus* avium, *Quercus robur*, *Quercus petraea*.
- Scrub control only by livestock
- No planting of hedges to ensure open landscape is maintained. Rotational grazing system is to be managed using electric fencing to minimise visual obstructions.
- Use of herbicides is targeted to pernicious perennial weeds. To be applied by knapsack applicator or weed wiper.
- Shallow cultivation only to be used to establish grass leys. Any Subsoiling is to avoid tree root zones.
- Restoration of tree 'cluster' plantings in former, degraded parkland to the east of the mansion. Establishment of single species clusters in equine paddocks behind post and rail fencing. Additional benefit of shade for livestock will be provided by the planting.

4.2. Ancient woodland

See separate woodland management plan (TBC).

4.3. Avenues

Eastern avenue (Main Drive) is complete.

- Undertake a programme of retrenchment pruning on original specimens. Prioritise work according to safety risk posed by individual specimens. Height of reduction to be consistent between specimens to allow a degree of uniformity within the avenue. Routine removal of mistletoe when carrying out pruning operations – mistletoe will regrow.
- Removal of original specimens is only justified when they pose an unacceptable safety risk that cannot be managed in an aesthetically acceptable manner, ie. not as a monolith
- The original specimens provide considerable habitat value, which is maintained with the retention of the trees and deadwood stubs where possible
- Replacement plantings (*Tilia* sp.) to be allowed to develop to full height and spread without pruning intervention.
- Formative pruning to be carried out on young and early mature specimens to aid development of crown.
- Coordination of crown reduction work and replanting is required to ensure adequate light levels for the crown development of replacement specimens.
- Relaxing of mowing regime directly beneath central crowns in linear strip. Accumulation of leaf litter and minor deadwood permitted within long grass strip. Annual flailing of long grass strip and debris to aid the development of soil organic matter and removal of unwanted woody species.
- Retention of minimum 12m buffer strip between avenue and intensively managed arable crops (see photo).

Southern avenue (South Drive) – planting is incomplete

- Stump grinding of removed specimens
- Replanting with *Tilia platyphyllos* / *Tilia* x *europaea* up to Sports pitch 'four oaks'.
- Maintenance of weed free wood chip mulch circle beneath canopy of new plantings.
- Undertake formative pruning, irrigation and the removal of stakes and guards in accordance with current industry best practice.
- Relaxing of mowing regime in linear strip directly beneath central crowns of trees south of the sports hall car park. Accumulation of leaf litter and minor deadwood permitted within long grass strip. Annual flailing of long grass strip to aid the development of soil organic matter and removal of unwanted woody species.

Northern avenue (North Drive) – planting is mostly complete

- Repollarding of previously topped specimens is to be carried out on a five year cycle to maintain avenue presence and allow suitable light levels until young and semi mature specimens reach early maturity.
- Maintenance of weed free wood chip mulch circle beneath canopy of new plantings to a minimum of 1m diameter.
- -Undertake formative pruning, irrigation and the removal of stakes and guards in accordance with current industry best practice.
- Removal and replacement of young and semi mature specimens exhibiting poor form, eg. excessive lean from wind rock, compressive codominant main stems.
- Proactive crown raising is to be carried out to encourage apical dominance and reduce interference with high sided vehicles.

4.4 Battle of the Nile

Replacement plantings are now complete after work undertaken in 2017. Future management requires best practice for young and early mature trees, with appropriate removal of stakes, guards and formative pruning. Replacement of trees may be necessary if failure or excessive damage occurs.

4.5 Mature ornamental plantings

- Identify key specimens of uniform age, or in general decline. Plan replacements to ensure continuity with original plantings and to maintain the identity of the plantings.

- Significant reduction or removal of specimens posing an unacceptable safety risk may be required. The establishment of replacement plantings is desirable prior to the removal of original specimens.
- Maintenance of a wood chip mulched circle surrounding the main stem where specimens are located within mown turf in prominent amenity areas. Relaxing of mowing regime beneath canopy in less prominent areas, with leaf debris and minor deadwood allowed to accumulate. This is to reduce compaction and damage from ride on mowers, to allow the full crown to develop and to deter people from sitting under trees in case of branch drop on mature specimens.

4.6 Recent ornamental plantings

- Identify unique specimens of good form for future retention.
- Identify unimportant specimens for future removal at the early mature stage to aid the development of retained specimens.
- Undertake formative pruning, irrigation and the removal of stakes and guards in accordance with current industry best practice.
- Maintain weed and grass free wood chip mulch circle under the crown. Prioritise specimens for long term retention.

5. Surveying/ Recording Trees Procedure

5.1 History

2010 – 2018: tree risk reports and surveys were undertaken by Bartletts Tree Experts and Tall Oaks Tree Care targeting specific key areas of the BCA central campus. Priority works have been completed in line with the surveys. The key areas subject to a recent survey include the eastern, northern and part of the southern avenue and the ornamental back lawn area.

5.2 Current

Our surveying approach will use a risk map based on frequency of use (see appendix 2), there are three broad categories of risk which correlate to the frequency of inspections.

High risk areas – areas of regular (4-8hrs per day) static activity and high financial value– minimum 18 month survey frequency
eg. Staff residential blocks, main car parks

Medium risk areas – areas of intermittent (< 4hrs per day) static activity and/or high mobile usage and/ or moderate financial value – minimum 3 year survey frequency
eg. Driveways, adjoining property boundaries, sports pitches

Low risk areas – areas with no static activity and low transient usage – no need to survey for safety purposes.
e.g. Arable field, pasture, equine paddocks, woodland

Surveys will be completed by experienced persons holding an arboricultural qualification and Professional Tree Inspection certificate.

Surveys carried out by BCA staff will be recorded in the Estates compliance database. A numbering system will be used, with each survey tree having a unique identifier. Repeat tree surveys will focus on works to be completed rather than recording all biological and physical features.

Survey work and recommendations will be carried out in accordance with current industry best practice and key texts including:

- Common sense risk management of trees, version 2. National Tree Safety Group. 2024
- Ancient and other veteran trees; further guidance on management. Lonsdale. 2013 Principles of tree hazard assessment and management. Lonsdale. 2013
- Body language of trees (encyclopedia of visual tree assessment). Mattheck. 2015

6. Hazard Identification and Tree Threats

6.3 Risk posed by trees

The common sense risk management of trees (2024) lays out a clear basis for a proportional approach to the assessment of the risk to persons and property posed by trees.

On average six persons per annum are killed as a direct result of tree failure. The Health and Safety Executive's (HSE) Tolerability of Risk framework categorises risk in key areas based the number of deaths per annum per population. The number of deaths caused as a direct result of tree failure falls within the 'broadly acceptable' region of less than 1:1000000. This acknowledgment of the relatively low risks posed by trees does not justify a relaxing in the surveying of trees, but is a reminder of the proportional view that must be considered when assessing risk.

6.4 Typical appropriate action

Every tree must be assessed according to its individual condition, species characteristics and location. There are some management actions that can be broadly applied to the three categories of risk.

6.5 Tree Threats

Ash Dieback: *Hymenoscyphus fraxineus*

Ash (*Fraxinus excelsior*) is the most abundant tree species across the 18ha of woodland on the BCA estate. There are very few Ash trees in the immediate built environment. Ash dieback is prevalent and is affecting trees at different rates. The risk posed by falling deadwood is not significant in most places, however, the Forest School classrooms and most public footpaths across the Estate are in areas where Ash trees are present. The decline of tree health will be managed in accordance with Forestry Commission best practice. The need to fell trees for financial gain and safety management is balanced with the need to keep a wide genetic pool of living trees on the Estate. Proactive thinning and replanting has taken place across Calves Ley woodland (4.3ha) due to the lack of species diversity. The 35 year old Ash trees in Highwood are highly susceptible and most are in the advanced stages of decline, with numerous standing dead trees present. The control of deer and a proactive planting / regeneration of replacement tree stock is required to keep continuity in our woodlands. Warning signage will be installed where public rights of way and other access routes travel through woodland affected by Ash Dieback.

Acute Oak Decline (AOD)

AOD is present across the south western side of the college Estate in the parkland, Dellars Copse and the back lawn. The rapid decline and death of trees has been witnessed on various oak trees in this area. Approximately 15+ individual trees are displaying symptoms. Over the last 5 years, there are now trees with symptoms near the college built environment. Branch drop associated with the disruption to the vascular system has occurred in numerous cases. Affected trees in high or medium risk areas require intervention to reduce the risk to persons to an acceptable level. Techniques to aid tree resilience include, relaxing of mowing or grazing regime in tree root zones. No cultivation in tree root zones. Removal of competitive trees. Signage and fencing to deter people from trees at risk of branch drop will be installed where appropriate. Since 2017, an active program of replanting has been taken place to establish a greater diversity of tree stock across the Parkland.

Oak Processionary Moth (OPM)

OPM has been first sited at BCA in June 2025, on an oak in the back lawn area. The college is sited on the edge of the established zone for the pest. There have been many positive sitings in the local area.

The management of OPM will be caried out in accordance with best practice.

Oak trees in the high or medium risk areas will be inspected at least monthly from May – August. The relaxing of mowing regimes beneath the tree crowns will deter people from siting underneath. Discrete signage will be displayed in high traffic areas to ensure people are aware of the risks. Risk assessments will be updated accordingly, and information will be circulated to affected staff and students via email as appropriate. Remedial works relating to an infestation of OPM will be considered at the time in conjunction with best practice and in proportion to the situation.

Climate Change

The highly volatile seasonal swings in climate are putting the college's tree stock under significant stress. Combined with pest and diseases such as Ash dieback and Acute Oak decline, Climate Change is accelerating the pace and impact of existing tree threats.

We are encouraging resilience in our tree stock by:

- Allowing healthy soils to develop through reduced compaction, adding soil organic matter and leaving deadwood, minimal use of pesticides and cultivation
- Minimising competition. The removal of competitive undesirable trees and plants in tree root zones.
- Replacement planting. We have had an active tree planting program in the college amenity areas over the last 30 years. Diversity in this area is excellent. Since 2017, an active program of replacement planting in the wider estate has been undertaken to increase species diversity.

	High Risk Area	Medium Risk Area	Low Risk Area
Retention of standing deadwood	Unacceptable	Acceptable with species and circumstances: requires management to reduce risk	Acceptable
Retention of major deadwood (>100mm diameter)	Unacceptable	Acceptable with species and circumstances:	Acceptable

		requires management to reduce risk	
Retention of minor deadwood (<100mm diameter)	Acceptable dependent upon species and target	Acceptable	Acceptable
Retention of tree with insufficient residual wood to support structure: failure inevitable	Unacceptable: requires management to reduce or eliminate risk	Unacceptable: requires management to reduce or eliminate risk	Acceptable

BCA Tree Risk Zones