

Estates & Facilities Management - Estates Division Tree Husbandry - Policy and Procedures

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Estates Division

Estates and Facilities Management

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This document sets out the policy and procedures for the management and control of Tree Husbandry for the Directorate of Estates and Facilities Management, Estates Division.

Approval

Deputy Director of Estates

Adrian Stokes



Date

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Tree Management – Policy and Procedures

Tree Policy – A vision and policy for Oxford Brookes University

1. Trees

There are in excess of 2,500 trees on Oxford Brookes University's estate, many of which are prime specimens from a wide variety of species.

Oxford Brookes University is committed to developing and improving their trees, as they yield many benefits for our estate:

- They add beauty and character to our landscape;
- They absorb atmospheric pollutants thus purifying the air and improving the environment;
- They provide a habitat for birds and wildlife.

These benefits contribute towards making our university a better place in which to live, study, work and visit. In order for all these positive attributes to be fully realised, both in the short and long term, Oxford Brookes University will implement a comprehensive tree policy and management programme which will include:

- Managing the age profile - many areas of the University have a high number of over mature trees that will require replacing. In order to ensure the impact of the tree cover is not lost, a removal and replacement programme will be implemented;
- Dealing with associated problems caused by trees which have ended up being planted in the wrong locations - for example, building damage, severe loss of light and leaf litter;
- Tree management – a proactive tree management programme of surveys and remedial action plans will be implemented.

2. Vision

We will seek to improve the quality, quantity and variety of the University's tree stock by implementing a long term management plan. This will ensure a commitment to our students, staff and visitors alike to enhance Oxford Brookes University's trees. The management plan will stipulate that we:

- Ensure safety is the highest priority;
- Consult stakeholders prior to major tree works;
- Inspect our at risk mature trees on an annual basis, carry out any remedial works as necessary and record all data to build up a history of this work;
- Ensure all maintenance work is carried out to the relevant British Standards or current best practice guidelines;
- Utilise the most modern available equipment to assist in the inspection and surveying of our trees;
- Introduce a **Geographic Information System** to identify each tree on digital mapping;
- Will wherever possible plant new trees as a replacement for those which have been removed and constantly seek out new planting sites;
- Plant tree species appropriate for the location with a view to attaining a balance between native and ornamental species
- Will review all procedures on an annual basis to ensure they remain current and in keeping with the best practice guidelines.

Tree Management – Policy and Procedures

Tree Strategy

1. Strategy

The overall aim and strategic objective is for the care of all trees within the University's estate. This strategy provides a brief indication as to how each of the strategic objectives will be interpreted within the context of the University's development plans. Most prominent are those trees next to internal roads and footpaths and externally along public roads of which there are approximately five hundred (500). There are also a large number growing within the estate and surrounding our buildings.

2. Ownership

There are responsibilities associated with ownership of trees. Some of these are legal responsibilities (Tree Preservation Orders) and others are adopted in the interests of good husbandry and neighborliness. In this respect all trees on the estate are considered to be owned by the University with legal controls via the council Tree Officer. Oxford Brookes University seeks to be a good and responsible manager and to uphold its duty of care.

3. Tree Replacement and Pruning

Planting trees has a dramatic effect on any area and we consider all the implications to make sure the trees complement the built environment.

Oxford Brookes University undertake regular pruning to maintain their trees, remove those trees that become a hazard, and at the same time endeavor to replant wherever practical. Tree care involves management of individual trees as well as the tree population as a whole.

Trees require regular safety inspections and following that inspection, three surgeons will carry out the necessary remedial work. This work may be to allow free flow of pedestrians and/or vehicles, to prevent damage to buildings or the removal of trees that become hazardous.

Oxford Brookes University:

- Is committed to increasing the number of trees and will implement an imaginative tree planting programme;
- Will, where a tree is felled (in all but extreme or irreconcilable circumstances) replace it in the current planting season or at the first opportunity;
- Will replace felled trees with another of suitable species in order to preserve the specific or unique character of the immediate environment with due regard to the streetscape and design;
- Will implement a tree-planting programme and prioritise its resources to the replacement of felled trees followed by the establishment of new planting.

Prior to planting a new tree the area will in first instance be 'cat' scanned and if necessary a trial hole be excavated to investigate the nature of below ground conditions and to ascertain the presence or otherwise of underground services.

Species utilized in the tree planting programme will be those judged by Oxford Brookes University Director of Estates and Facilities Management to be appropriate for the circumstances based on policy, together with arboricultural knowledge and experience, and the environment in which they are to be planted.

Trees will be selected for their appropriateness of scale and proportion to their surroundings and the aesthetic contribution and enhancement they make to that environment.

Where trees need to be pruned to facilitate access to a property for gantries, scaffolding, skips or to assist in the construction of prospective hoarding etc. this work will be carried out by the University's tree specialist under the supervision of the Grounds Manager.

4. Public Safety

The prime duty of care is the safety of the University's employees, students and visitors.

Buildings, highways, gas and water pipes, and electricity and telephone cables need to be maintained and work associated with this type of maintenance can often have an impact on nearby trees. These trees will be placed under stress as their underground and above ground structure could become damaged by the resultant works. The refurbishment, demolition and reconstruction of buildings involves a tremendous amount of material movements, scaffolding, skips and delivery vehicles as well as excavation, all of which can lead to damage.

Such construction work is symptomatic process, both economic and social, and to a large extent must be accepted. Oxford Brookes University, however, will seek to minimise damage to trees and work in co-operation with those involved in construction works.

Please refer to the Trees and Construction document for more details on working close to buildings and new construction works.

5. Duty of Care

Management and care of trees will be achieved by reference to policies and practices that incorporate the University's legal responsibilities, its duty of care, arboricultural need and the appearance and character of a tree setting. It will also encourage those whose activities affect trees to act in a responsible manner.

Oxford Brookes University will employ trained and experienced tree arboricultural specialists to act as day-to-day managers as well as to provide technical advice on tree matters.

Please refer to Appendix B – Adverse Weather Conditions – at the end of this document.

6. Tree Management

Oxford Brookes University recognizes that trees are an essential element of their sites and acknowledges that many other groups also appreciate them. Consequently, decisions on planting, pruning, felling and the type of maintenance regime employed will stand up to scrutiny.

7. Tree Objectives

To achieve effective tree management, Oxford Brookes University's main objectives are:

- To perpetuate the existing tree stock as far as is practicable and desirable in accordance with good arboricultural practice by programme of care and maintenance, planting and replacement;
- To keep a register of trees within which general management requirements and intentions are recorded;
- To provide a pruning, planting and felling service that represents quality and value. This will include supervising and monitoring the work of contractors employed by Oxford Brookes University to ensure high standards of tree husbandry, surgery and public safety;
- In areas of risk, pruning may be commissioned on a yearly basis, otherwise every three years. Requests to prune trees outside the three-year pruning cycle will be given a low priority unless there are reasons of safety, nuisance or risk of legal action;
- To ensure trees are inspected by a qualified person and the works commissioned as necessary;
- To prune trees to ensure free passage for pedestrians using the footway and vehicles using the carriageway as well as to give adequate clearance from property, whilst retaining a pleasing and balanced appearance.

Appendix A – Tree Inspections

Three Levels of Tree Inspection

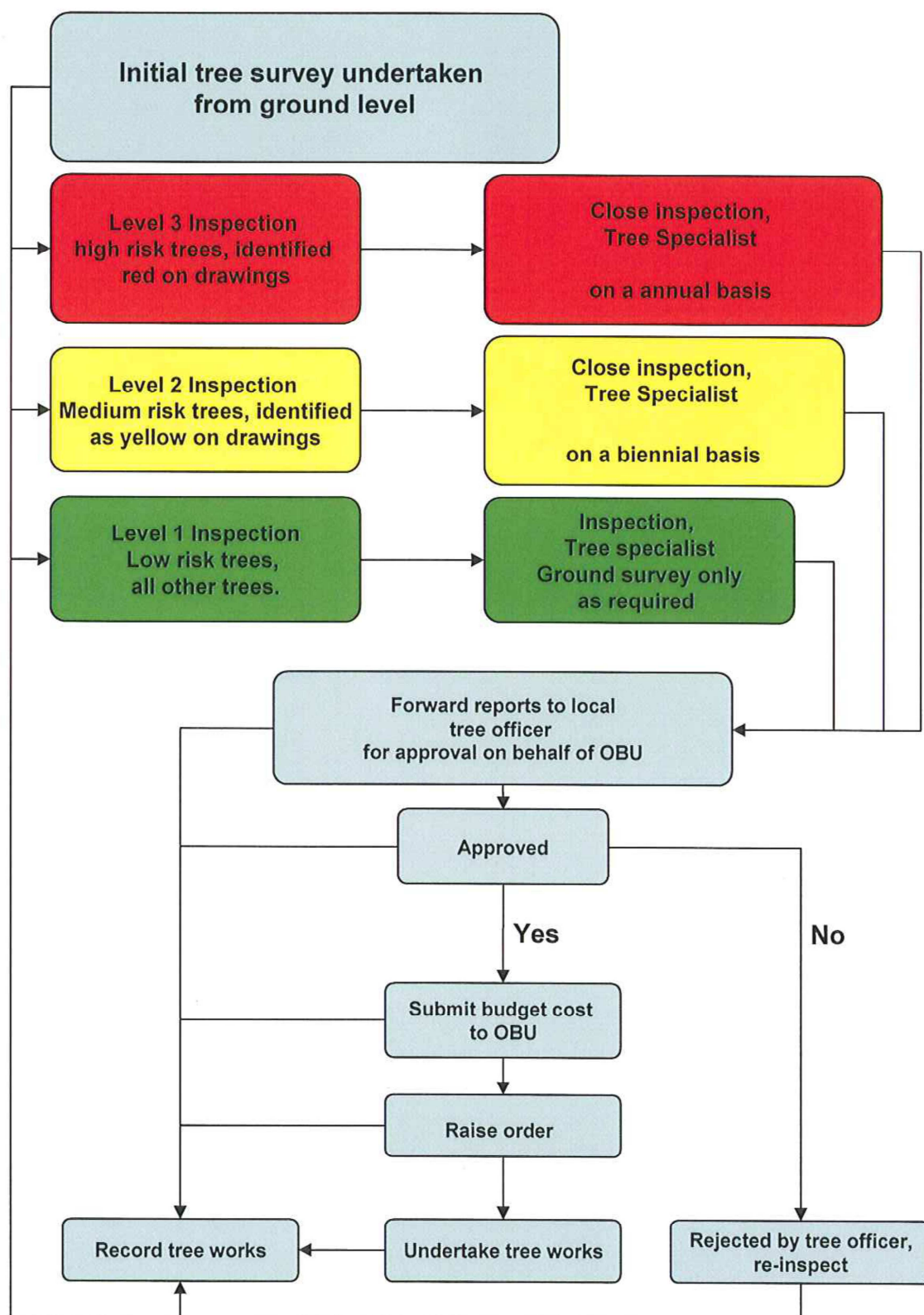
There are three levels of tree inspection, all of which employ standard ways of inspecting trees.

These inspections will be undertaken, and records kept, by Oxford Brookes University on all of the trees in public areas, and although the main thrust of compliance is inspection and record keeping, it is paramount to undertake the associated tree works that arise from these inspections.

Inspections:

Level 3 Inspection	<p>These are high risk trees which are located near car parks, roads, foot paths, etc. and all public areas that are frequently visited by the public (identified in RED on our site drawings).</p> <p>Inspections at this level can only be carried out at close proximity, by climbing to view cavities, suspect branches and fungal brackets, etc. This should be undertaken by a qualified arboriculture trained person who is able to carry out detailed tree inspections, identifying and evaluating defects and also carrying out the individual risk assessments associated with the task or requirement. Such inspections are carried out annually.</p>
Level 2 Inspection	<p>These are medium to high risk trees that are again located near car parks, roads, foot paths, etc. and all in public areas that are frequently visited by the public (identified in YELLOW on our site drawings, except Morrell Hall).</p> <p>Inspections at this level again can only be undertaken by a qualified arboricultural trained person who can identify, evaluate and report obvious defects and likely harm due to failure, and is carried out at ground level. Further inspection may need to be carried out by climbing. These inspections are carried out every two years.</p>
Level 1 Inspection	<p>Low level risk inspection that can be carried out by the Grounds Manager in consultation with the tree specialist and refers to trees that are not located near buildings or any public areas.</p> <p>These inspections shall be carried out as required or within a five year period.</p>

Appendix B – Tree Works Flow Chart



Appendix C – Adverse Weather Conditions

Most of the tree defects listed below will be identified and assessed by a skilled inspector but there is no evaluation methodology currently in use that enables an inspector to quantify risk in any way associated with adverse weather conditions.

- General appearance
- Size and height of defect
- Bark wounds, cavities, external signs of decay
- Fungus present at time of inspection, or remains, including bark discoloration
- Bark to bark contact, bad crossing branches
- Previous history of bad pruning
- Exposure to wind and support from neighboring trees
- General appearance, Health and Safety
- Ground conditions, any excavations
- Open cracks
- Lopsided crown, resulting from uneven pruning, poor balance
- Dead wood, dead bark
- Tension cracks

Oxford Brookes University's tree management will limit the risk of significant harm from trees disintegrating or even their complete failure during these adverse weather conditions, whilst maintaining the benefits conferred by trees.

Oxford Brookes University will evaluate the risk of the trees failure. This is undertaken by assessing and quantifying what is the condition within each tree, thus enabling us to determine whether or not and to what degree of rigor a complete survey or inspection of the said tree is required, taking into account weather, wind, rain, and ground conditions.

Where necessary, the tree or branch is then considered in terms of both impact potential (size) and probability of failure. Values derived from the assessment of these two components can then be used to calculate the probability of significant harm occurring.

Although this is not an exact science, this will help to move the management of the tree safety away from just labeling trees as either 'safe' or 'unsafe' and thereby away from requiring definitive judgments of either tree surveyors or tree managers.

Extreme Conditions

Any tree works in progress will need to be suspended until wind conditions subside.

Although the wind speed and tree risk assessment is not directly related, based on previous experience, Force 8 (Fresh Gale) as per the Beaufort scale chart has been used as a bench mark to trigger the need for increased vigilance.

If the wind conditions exceed Force 8 then the Grounds Manager will consult with the Director of Estates and Facilities and the University Health and Safety Officer to implement additional safety measures, which may include:

- Closure of foot paths near dangerous trees;
- Closure of car parking areas near dangerous trees;
- Closure of roadways near dangerous trees;
- Closure of areas of sites including complete sites if required.

Trees on all Oxford Brookes University sites are inspected by our arboricultural specialist and their risk assessed according to the size, age, species and location.

Beaufort Wind Scale including land indications

Force	Description	mph	Indications On Land
0	Calm	< 1	Smoke rises vertically
1	Very Light	1-3	Smoke drifts
2	Light breeze	4-7	Wind felt on face. Rustles leaves
3	Gentle breeze	8-12	Leaves and flags move
4	Moderate breeze	13-18	Paper blown about. Small branches move
5	Fresh breeze	19-24	Large branches sway
6	Strong breeze	25-31	Small trees sway
7	Near gale	32-38	Large trees sway. Difficult to walk
8	Gale	39-46	Small trees blown down
9	Strong gale	47-54	Structural damage. Chimney pots removed
10	Storm	55-63	Trees uprooted. Much structural damage
11	Violent storm	64-73	Widespread damage
12	Hurricane	>74	Widespread damage

The following list gives guidance of the level of risk attributed to each site:

Risk	Description	Sites
High	Dense population of trees in and around buildings, car parks and paths including tree species which are shallow rooted, over mature, tall, subject to windy conditions and or in areas where there is a high population of people.	Headington Hill Campus Gipsy Lane Campus Paul Kent Hall Cheney Sports Centre
Medium	Isolated or few trees in and around buildings, car parks and paths that are not subject to shallow roots. Some may be over mature but are not in areas where windy conditions prevail and or in areas where there is a high population of people.	Wheatley Campus Harcourt Hill Campus Clive Booth Student Village Warneford Hall Crescent Hall
Low	Low risk, due to lack of trees of any size that would cause problems.	Marston Road Campus

Emergency Procedure

Trees that are near roads, foot paths, buildings and or car parks that are suspected of being at risk are to be reported to the EFM Service Desk immediately for further action. The area around the tree(s) at risk shall be made safe by cones and or barriers as appropriate.

Normal office hours 0800 – 1630

The EFM Service Desk will pass this information on the Grounds Manager or their deputy who after evaluation may call the arboricultural specialist to undertake emergency tree works.

EFM Service Desk phone number 01865 488888

Outside normal working hours

Trees suspected of being at risk should be reported to The Control Room, who will contact the Estates call-out duty manager for assistance.

Control Room phone number 01865 483060

For further information/guidance please refer to:

- Tress in Relation to Construction Policy for more details on working close to buildings and new construction works.
- BS 5837 Trees in relation to construction recommendations.
- BS 3998 Tree works, Recommendations.
- BS 4043 Recommendations for transplanting semi-mature trees.