

DRAFT TOPIC PAPERS

- v1

URBAN FOREST STRATEGY 2026-2036 - V2
CANBRIDGE CITY COUNCIL

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TOPIC PAPER 1 ASSET MANAGEMENT

Policy alignment

This paper should be read in conjunction with the Urban Forest Strategy's Tree Management Policies M1-M5, Topic Paper 2 (Tree Planting, Work and Third-Party Guidance), Topic Paper 3 (Biodiversity and Habitat Connectivity), Topic Paper 4 (Trees, Subsidence and Structural Damage) and Topic Paper 11 (Tree Protection, Damage and Compensation) which together provide a comprehensive framework for tree asset management.

Purpose

This paper explains how Cambridge City Council manages its tree stock as living assets while meeting its duty of care.

It covers inspection regimes, risk-benefit assessment processes, cyclical maintenance, consultation, and the challenges of managing trees across different landholdings, including housing and commercial estate land. The approach follows the principles of the National Tree Safety Group (2024)¹ and the Council's Urban Forest Strategy, ensuring that trees are managed as valuable assets that provide multiple benefits, while risks to public safety are kept 'as low as reasonably practicable' (ALARP).

Introduction

The Council's legal obligations include a duty of care to maintain its trees in a safe condition. The demand on any service area can vary from year to year in response to environmental changes, storm damage, altered growing conditions and rises in pests and diseases, resulting in localised rises in tree work. Increases in demand in one area of the service can affect the ability to deliver in other areas.

The Council will prioritise its legal obligations first, ensuring that risks to people and property are managed proportionately in line with National Tree Safety Group guidance. This means balancing public safety with the wide range of benefits that trees provide, including amenity, biodiversity, climate regulation, and community well-being, and avoiding unnecessary loss of healthy trees. Its second priority will be to sustain its asset through non-safety relates tree care practices and planting. Lastly, it will prioritise its engagement aspirations.

¹ The National Tree Safety Group | Research into tree risk and creation of basic principles as a framework for considering and managing tree safety in the public interest. (last accessed 18/09/25)

Public Tree Assets

The Council has a team of three full-time qualified arboriculturists to administer and advise on matters related to trees in the public domain, which can be divided into five categories:

1. Parks and Open Spaces

Trees located in Cambridge's:

- Parks
- Recreation grounds
- Commons
- Closed churchyards
- Play areas
- Nature reserves and other areas of high biodiversity value
- Other open spaces, including cross-boundary sites such as Byron's Pool, Nine Wells, St Albans Recreation Ground

2. Highways

Street trees growing in pavements and verges are the assets of Cambridgeshire County Council. Cambridge City Council has managed these trees on the County's behalf since before 1994. Although the formal service agreement expired in 2014, the arrangement has continued by custom and practice.

Under this arrangement, Cambridge City Council maintains and plants highway trees, with costs recouped annually from the County. Overall liability for the tree stock remains with Cambridgeshire County Council, and objections raised through consultation are resolved by County officers. In line with the 2016 Tree Strategy, responsibility for funding and long-term strategic management rests with the County. The City Council will continue to seek clarity on future arrangements to ensure the sustainability of the service.

In fulfilling this role, the City Council also discharges the statutory duty introduced by the Environment Act 2021 (now contained in the Highways Act 1980) to consult on the felling of street trees, ensuring transparency and public involvement in decision-making.

3. Housing

The responsibility of City Homes, trees on communal housing land are those found in the publicly accessible open space areas in and around housing estates. The Tree Team inspects and advises on these trees, to ensure a consistent balance between safety, amenity and resident engagement.

4. Special Council-owned sites

These are special areas sometimes with limited public access:

- Highfield Avenue tree belt
- Walpole Road woods
- West Pit woods
- Histon Road Cemetery
- Allotments (directly managed and leased)

5. Other managed land

In addition to direct responsibility, the Tree Team also advises on the management of trees on all other Council-owned land, including:

- Council car parks
- Tenanted housing land
- Newmarket Road Cemetery and the Crematorium (S. Cambs)
- Property services land (including commercial leases)
- Drainage land
- Other leased or service-managed land where tree safety responsibilities remain with the Council.

The Tree Team directly manages 1-4:

Direct management by the Tree Team

Set out below is the Council's general maintenance regime. Most Highway, Housing Estate and Park and Open spaces trees are managed by the Tree Team inspected and maintained under a 3-year cycle.

The cycle is based on the city being split into three geographic ward-based areas. Each area is given a three-year priority in turn, and trees in the priority area are proactively inspected and managed. Only emergency, zone 2 or special zone works are completed outside the priority area.

This division of the city makes best use of resources while adhering to government guidance and the National Tree Safety Group principle of proportionate risk management ensuring that risk is controlled to a level that is as low as reasonably practicable (ALARP).

Trees in closed churchyards are also managed by the Tree Team using the same inspection principles, but recommended works remain subject to Diocesan approval.

All other Council-owned trees (e.g. cemeteries, car parks, and tenanted land) are inspected and maintained either through cyclical programmes or on request from the appropriate managing service, in line with the Council's duty of care.

Inspection and risk management

As trees are essential assets to the urban environment, but conflicts can occur with their surroundings, the Council follows the National Tree Safety Group's *Common sense risk management of trees* as the basis for its approach. This guidance stresses that risks should be kept as *low as reasonably practicable (ALARP)*, while recognising the wide benefits that trees provide. The five key principles are:

- 1. Trees provide a wide variety of benefits to society.
- 2. Trees are living organisms and they naturally lose branches or fall.
- 3. The overall risk to public safety is extremely low.
- 4. Tree owners have a legal duty of care; and
- 5. Tree owners should take a balanced and proportionate approach to tree risk management.

Tree inspections are undertaken by suitably qualified staff or contractors who hold relevant training and experience. Inspectors are expected not only to observe potential hazards, but also to apply professional judgement in balancing risks with benefits.

While whole-tree or partial failures can have serious consequences, other issues such as low branching obstructing access or sightlines to traffic signals can also present significant risks. To manage this effectively across a large and varied estate, the Council uses a ward-based three-year inspection cycle as the baseline. This provides an efficient and transparent system that allows resources to be distributed evenly and residents to be informed and consulted in a consistent way.

Where circumstances present a higher level of risk, for example trees in high use areas, inspections are carried out more frequently (see Special zones). Practical examples include the annual epicormic growth removal programme for busy limelined streets, the London planes on Jesus Green and heritage limes on Parkers and Christ's Pieces. This blended approach ensures proportionate risk management in line with National Tree Safety Group guidance and demonstrates that the Council manages tree safety risks to a level that is as low as reasonably practicable (ALARP), while retaining the wide benefits of the urban forest.

It should be noted that risks relating to building damage (e.g. subsidence or root-related structural issues) fall outside the scope of the National Tree Safety Group safety framework. These are addressed separately under Topic Paper 4 (Trees, Subsidence and Structural Damage), which sets out the Council's approach to balancing property risks with the wider benefits of the urban forest.

Proactive inspections and maintenance

Depending on the circumstances one of four levels of inspection will be employed:

- 1. Walkabout/drive-by A rapid visual assessment of a site looking for significant visually prominent tree related hazards.
- 2. Basic A visual assessment of individual trees which shall evaluate tree related hazards including the structural integrity of a tree, relying primarily on observations from ground level (possibly using binoculars, mallet and probe).
- Detailed A systematic and diagnostic process of visual inspection to gain sufficient understanding of a tree's structural condition, to inform, where appropriate, re-inspection interval and management recommendations; and
- 4. Advanced A specialised examination identified as being necessary during a basic or detailed inspection involving the use of specialised (e.g. decay mapping) equipment.

Inspection data is recorded on the Council's proprietary tree management software (Ezytreev®). Advanced inspections will be recorded with a full report saved on the shared network in an appropriate format, such as Word, PDF or Excel. The detail recorded will vary with the level of inspection. Any observations giving rise to concern over tree safety will be recorded. Basic inspections will be the default level of inspection.

Occasionally there are trees, particularly veteran or ancient specimens, of exceptional amenity, biodiversity or cultural value that display significant defects. In such cases, in line with National Tree Safety Group guidance, the Council may choose to retain the tree where risks can be reasonably managed, for example by restricting access, selective works, or increased monitoring. This reflects the principle that higher levels of risk may be tolerated when justified by higher levels of benefit.

Where a significant defect is suspected and failure could result in serious harm or damage, inspections will be undertaken to fully assess the extent of the defect and level of any associated risk. This will inform site-specific management recommendations.

For basic inspections the minimum data recorded will be:

- date of inspection.
- name of person undertaking the inspection.
- trees inspected/site inspected.
- any significant defects observed.
- any limitations preventing inspection to the required level e.g. ivy, shrubs
- tree species; and
- action recommended (where relevant).

Trees not found to have significant defects, and/or not directly threatening an identified target, need not be individually recorded during a site inspection, providing that the date of inspection and the site inspected are recorded. It will be assumed by implication that all trees present within the site have been inspected. This method of recording may be employed during proactive inspections where large numbers of trees are involved and the practicalities of recording each tree inspection individually are unrealistic.

For detailed and advanced inspections, the minimum data recorded should be:

- date of inspection
- name of person undertaking the inspection
- tree inspected
- species name
- age class
- specific defects present assessed as being a potentially significant risk
- any limitations preventing systematic inspection
- action recommended (where relevant).
- risk assessment e.g. Quantified Tree Risk Assessment²
- condition assessment

Walkabout/drive-by inspections will only be undertaken in special circumstances, e.g. after a storm event, where there are resource issues or prior to some events. For walkabout/drive-by inspections, the minimum data recorded should be:

- date of inspection
- name of person(s) undertaking the inspection
- site inspected
- defects present assessed as being a potentially significant risk
- action recommended (where relevant).

Basic tree inspections should be employed both reactively and proactively. Detailed and advanced inspections will be employed in response to basic inspection findings.

In applying this inspection system, the Council will ensure that decisions are transparent, proportionate, and where appropriate involve consultation with stakeholders. This reflects the National Tree Safety Group emphasis on maintaining public trust and confidence, while managing tree risks in a way that retains the broadest possible range of benefits.

Maintenance follows from inspections or from the application of pre-defined standards, such as the Cambridge City Council Combined Proactive Specification³.

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² QTRA (last accessed 18/09/25)

³ The Combined Proactive Specification is the standard set of arboricultural operations applied to the city's tree stock during each management cycle. Its purpose is to bring trees up to a consistent baseline condition that ensures safety,

Trees on the city's streets and in communal housing areas are managed as a single unit, reflecting their shared role in the streetscape, typically lining either side of a footpath. On their scheduled three-year cycle, these trees are brought up to the Combined Proactive Specification baseline, after which inspections identify any additional tree care needs. Trees on other landholdings, such as parks and open spaces, are inspected first and works are then recommended in line with the specific use and character of each site. The inspecting officer is responsible for procuring, consulting on, and overseeing the works they have recommended, ensuring these are delivered in a timely manner. With few exceptions, all works are carried out by the Council's approved framework contractors.

Zoning and Inspection Framework

In line with HSE guidance (SIM 01/2007/05)⁴, the Council applies a simple two-zone framework for managing tree safety risks:

- **Zone 1** Trees directly managed by the Tree Team, including those on streets, communal housing land, parks, and open spaces. These trees are subject to the baseline three-year inspection cycle.
- Zone 2 Trees where the Tree Team does not have sole responsibility, including those on tenanted housing land (where tenants share responsibilities under tenancy agreements) and service-managed landholdings. In these cases, the Tree Team provides advice to landowners and service managers, who are expected to integrate tree safety into their wider responsibilities.
- Special zones Certain high-profile or distinctive sites require tailored management regimes outside the standard three-year cycle. These zones are defined by the nature of the trees, the risks involved, or specific management objectives. Current examples include:
 - Annual epicormic removal Predominantly highway limes, where programmed clearance is required each year to maintain sightlines and safe access.
 - Trees with particular characteristics Examples include Christ's Pieces, Jesus Green, Midsummer Common, and Long Road, where the species, form, and condition of the trees warrant more frequent inspection than the baseline cycle.

accessibility, and functionality across the urban forest before additional needs are identified through inspection

⁴ Management of the risk from falling trees or branches - FOI - HSE last accessed 17/09/25

- Ash-dominated woodlands Areas such as Walpole Road Woods and West Pit, where ash dieback significantly affects stand condition and requires periodic site-level monitoring and management.
- Subsidence risk abatement areas Locations such as Alexandra Gardens, Maids Causeway, and Newmarket Road, where management is shaped by engineered root management and regular interventions to reduce the risk of property damage.

These tailored regimes may result in inspection intervals that are generally shorter than the baseline three-year cycle. This approach ensures that risks remain ALARP while sustaining the amenity, biodiversity, and heritage value of Cambridge's most prominent and sensitive tree populations.

In addition to programmed inspections, operational staff working in parks, streets, and open spaces are encouraged to report obvious tree defects. This supports the formal inspection system and ensures that reactive checks supplement proactive cycles.

Ivy and Shrub Obstructions

The presence of ivy or dense shrub growth can sometimes restrict the ability to carry out a full basic inspection of a tree. Where this occurs, inspectors will record the limitation and note whether additional action is required.

In line with National Tree Safety Group guidance on proportionate risk management:

- If the tree shows no other signs of immediate concern, inspection will be recorded as limited but no intervention will be made.
- If defects are suspected but obscured, inspectors may recommend selective clearance of ivy or shrubs to allow a closer inspection.
- Where ivy or shrubs provide biodiversity or amenity value, clearance will be kept to the minimum necessary to confirm tree safety.

This approach ensures that risks are identified and managed while avoiding unnecessary loss of habitat or cover.

Geographic Management Areas

The Council divides the city into three broad management areas, based on ward boundaries. This enables a systematic three-year inspection and maintenance cycle, ensuring resources are applied consistently to all areas.

Inspection and Maintenance Cycle

Management Area	Inspection and Maintenance Years

A (including Byron's Pool, Nine Wells)	2025/26 · 2028/29 · 2031/32 · 2034/35
В	2026/27 · 2029/30 · 2032/33 · 2035/36
C (including St Albans Recreation Ground)	2027/28 · 2030/31 · 2033/34 · 2036/37

Table 1 Inspection and maintenance cycles

Note: Years are shown as the starting year of the cycle. Each cycle includes inspection, maintenance and recording within that financial year.

Tree Planting and Establishment Cycle

Tree planting and establishment follows a similar cycle to maintenance but begins in the year following maintenance.

Management Area	Planting and Establishment Years
A (including Byron's Pool, Nine Wells)	2026/27 · 2029/30 · 2032/33 · 2035/36
В	2027/28 · 2030/31 · 2033/34 · 2036/37
C (including St Albans Recreation Ground)	2028/29 · 2031/32 · 2034/35 · 2037/38

Table 2 Tree planting and establishment cycle

Ward by management area

Ward	Streets and communal Housing	Parks, open and enclosed spaces
Abbey	С	В
Arbury	Α	С
Castle	В	С
Cherry Hinton	С	В
Coleridge	В	Α
East Chesterton	Α	С
Kings Hedges	Α	С
Market	В	Α
Newnham	В	С
Petersfield	В	С
Queen Ediths	С	Α
Romsey	В	В
Trumpington	В	Α
West Chesterton	С	С

Table 3 Management areas by ward

Subsidence risk abatement

Where the Council has established that a tree poses a higher risk of subsidence damage, it may be placed on an annual or biannual cycle. Examples include the London planes on Newmarket Road, Maids Causeway and Alexandra Gardens.

Annual Epicormic Removal Programme

Epicormic growth at the base of mature lime trees can obstruct access and visibility. Growth is currently removed on an annual basis in the following example streets:

Bentley Road; Belvoir Road; Blinco Grove; Chesterton Road; Hamilton Road; Humberstone Road; Kendal Way; Magrath Avenue; Mill Road; Mortimer Road; Mowbray Road; Queen's Road; St Andrew's Road; St Paul's Road.

Reactive Management

Reactive inspections are not systematic but are carried out in response to an event or enquiry. Typical triggers include storm damage, visible defects, or public reports of safety concerns. Requests are prioritised according to risk and inspected by a qualified officer.

Where immediate response is required and recording cannot be completed at the time, inspections may not always be entered into Ezytreev® immediately. The Tree Team will seek to update records where practicable, recognising that in urgent cases the priority is to address the risk.

Where there is an immediate risk of harm or damage, works are instructed straight away to reduce the risk to an acceptable level so that the tree can continue to be maintained safely within the baseline system.

Where safety concerns do not require immediate action but cannot wait until the next programmed inspection, they are collated and issued to contractors monthly.

Emergencies

If a tree on Council-owned land poses an immediate danger, phone the Council's Customer Service Centre and provide details.

We will need to know:

- the location a house number, road name or number, and a description. What3Words⁵ is a useful tool for identifying exact locations
- the extent of problem, when it happened and the current situation
- your name and telephone number so we can contact you if we need more information

⁵ what3words /// The simplest way to talk about location last accessed 23/09/25

If you can provide any photographs of the tree, it can help us deal with the problem more quickly.

Out of hours calls go through to an Emergency Duty Officer and will be passed directly to the Council's emergency contractor and Arboricultural Officers if necessary.

In line with National Tree Safety Group guidance, emergency response prioritises the protection of people and property. Where possible, proportionate measures will be used to mitigate risk (for example, restricting access, temporarily closing paths or parks during severe weather) before resorting to tree removal.

Managing Trees on Housing and Estate Land

The Council's responsibilities for trees on housing estate land are shared with City Homes (CH) and the Repairs & Compliance Team (RCT). The Tree Team provides professional arboricultural advice, while CH and RCT hold responsibility for instructing and funding most works. Responsibilities differ depending on whether the trees are in communal housing open space, communal gardens, or tenanted gardens.

Communal Housing Open Space

These are publicly accessible open spaces within or surrounding housing estates. Trees in these areas are treated as part of the Council's wider public tree stock. They are inspected and maintained by the Tree Team on the programmed cycle, with works delivered by approved contractors under the arboricultural framework. Significant works are subject to the Council's public consultation protocols, with CH consulted as part of the process. The Tree Team will proactively identify and deliver planting schemes in these areas, including opportunities for community-led planting.

Communal Gardens

These are enclosed gardens in Council ownership for the exclusive use of specific residents (e.g. blocks of flats). Trees in communal gardens are primarily managed by CH or RCT. The Tree Team supports CH/RCT with advice and inspection on request and must be consulted before works that would adversely affect visual amenity. Works delivery and costs are the responsibility of CH/RCT. Consultation with residents is recommended, but these works are not part of the Council's public consultation protocols due to their private, enclosed nature. The Tree Team may advise on and facilitate planting, in collaboration with CH or RCT, subject to resident consultation.

Tenanted Gardens

Privately demised gardens forming part of individual tenancies. Primary responsibility for tree management lies with the tenant. Tenants raise concerns with their Housing Officer, who seeks advice from the Tree Team. Recommendations are passed back

via the Housing Officer. CH may, in some cases, assist tenants with works. Tree removals always require CH consent. Tree works in tenanted gardens are not subject to the Council's public consultation protocols. The Council is committed to enhancing tree cover in tenanted gardens through refurbishment programmes, and to ensuring long-term protection of significant trees via Tree Preservation Orders (where justified) or covenants.

Priorities for Advice and Works

When advising CH and RCT, the Tree Team will prioritise issues as follows:

- Health and safety must be acted on within the recommended timescale
- 2. **Social reasons** discretionary, to be considered by Housing Officers
- Arboricultural reasons long-term issues not yet posing a risk; discretionary

Works to trees on ex-Council tenanted properties

Trees on tenanted properties that have been sold may be protected by a covenant on the deeds. Owners may be required to seek Council approval before removing such trees. The process for approval is the owner must request approval from City Homes, who will seek advice from the Tree Team and the Legal Team before making a final decision.

Individual Trees and Woodlands

The Council's tree stock includes both individual trees and groups or blocks of woodland. While all are part of the city's urban forest, the way they are managed and inspected reflects their different characteristics and risks.

Individual trees

Individual trees are those growing in isolation or as part of small groups within parks, streets, gardens, and open spaces. They are recorded as discrete assets in the Council's Ezytreev® inventory. These trees are inspected individually on a three-year cycle under the Zone 1 framework, with additional visits where higher levels of risk are present (Special zones). Individual trees in Zone 2 landholdings (such as tenanted housing land) are not inspected routinely but may receive advice or inspections where requested. Reactive inspections supplement the cycle where faults are reported or events such as storms occur.

Woodlands

Woodlands are areas dominated by tree cover, often self-seeded or semi-natural, managed as a collective habitat rather than a set of individual assets. Examples include West Pit and Walpole Road Woods. These areas are not recorded tree-by-tree in Ezytreev® but are instead managed through site-level woodland plans and

habitat management regimes, where they are available. Tree inspections focus on public safety along paths, entrances, and high-use edges (Zone 1). Woodland visits often linked to wider biodiversity or site management visits.

Approach

- All individual trees under direct Tree Team management are inspected on a three-year cycle, with higher-frequency visits where justified.
- Woodlands are inspected on a site basis, prioritising high-use areas and boundary trees where risks are most likely to affect the public.
- Reactive inspections and public reports provide an additional safeguard for both categories.

This approach ensures proportionate risk management in line with National Tree Safety Group and HSE guidance, balancing public safety with the wider amenity, biodiversity, and heritage value of Cambridge's urban forest.

Community Orchards

The Council supports several community orchards, which are managed in conjunction with local community groups and volunteers. These orchards provide valuable opportunities for food growing, education, biodiversity, and social activity, while also contributing to the wider urban forest.

Inspection

As public tree assets, many community orchards fall under the Council's Zone 1 inspection framework. Trees are inspected by the Tree Team on a three-year cycle, with additional checks where higher levels of risk are present.

Maintenance

Day-to-day maintenance activities, such as fruit collection, light pruning for fruiting purposes, and general ground care, are the responsibility of the local community group managing the orchard. The Council retains responsibility for tree safety and major arboricultural interventions identified through inspection.

New community orchards

Any new community orchards established on Council land will be subject to a formal agreement between the Council and the managing group. This agreement will set out roles and responsibilities, covering inspections, maintenance, insurance, and public use, to ensure the orchard is managed safely and sustainably.

Areas of High Biodiversity Value

Some parts of the Council's tree estate, including Local Nature Reserves, City and County Wildlife sites, Protected Road Verge, Local Geographical Sites, watercourses

and veteran or ancient trees, are managed first and foremost for their biodiversity and habitat value. These sites contribute disproportionately to the ecological network of the city and are therefore subject to more tailored approaches of inspection and maintenance.

Veteran and ancient trees

Veteran trees are recognised as irreplaceable habitats and form a key part of Cambridge's natural heritage. While they may present structural weaknesses, they are managed in line with national good practice which seeks to retain them for as long as safely possible. Inspections focus on proportional risk control for example, restricting access, halo thinning, or sensitive pruning rather than removal, unless no practical alternative is available.

Local Nature Reserves and designated wildlife and other sites

Trees within nature reserves and other high-value habitats are managed at site level to balance public safety with conservation objectives. Routine safety inspections in accordance with the Council's zoning protocols prioritise paths, entrances, and high-use edges. The Biodiversity Team are responsible for assessing habitat condition and management is based on management plans where available. Tree safety interventions are minimised and designed to preserve standing deadwood and natural features wherever possible.

Approach

- Safety of people remains the priority, but risk management in biodiversity areas will emphasise proportionate and non-intrusive interventions.
- Where risk can be managed through access controls or habitat management, these will be preferred to heavy pruning or felling.
- Detailed biodiversity considerations, including the role of the urban forest in ecological connectivity, are set out in Topic Paper 3 (Biodiversity and Habitat Connectivity), which this section should be read alongside.

This ensures the Council fulfils its duty of care while sustaining the ecological integrity of Cambridge's most sensitive and valuable tree habitats.

The management of shrubs and self-sets⁶

Woody shrubs and self-set trees under 10cm in diameter do not usually require specialist arboricultural expertise to manage. Outside of local nature reserves and

⁶ Shrubs and self-sets are woody plants that do not usually fall under the Tree Team's management unless they mature into tree form (or are protected by legislation). Shrubs are typically planted as part of landscaping schemes and remain smaller, multi-stemmed plants, while self-sets are naturally seeded trees that

woodlands all shrubs and self-set trees are for City Services Operations Team to manage in the first instance.

Where management may affect trees protected by a TPO or Conservation Area designation or are growing in areas of high nature conservation value the Tree Team and the Biodiversity Team will provide advice and oversight.

Commercial and Property Services trees

The Council's responsibilities for trees on Property Services land are the responsibility of Property Services. The Tree Team provides professional arboricultural advice, while Property Services hold responsibility for instructing and funding most works.

Allotment sites

Trees on allotments are managed under two frameworks: directly managed sites and those leased to independent Allotment Societies.

For leased sites, new agreements (from May 2026) confirm that the Council retains ownership of all trees, carries out three-yearly inspections, and undertakes works on dead, dying, or dangerous trees. Societies and tenants are responsible for non-essential works (e.g. light, shade, height, fallen branches) and for removing self-set trees before they become established. Internal hedges must be maintained by tenants, while external hedges remain the Council's or adjacent landowner's responsibility.

On directly managed sites, tree planting is restricted to dwarf fruit trees and bushes (no more than 25% of a plot), with additional limits on boundaries and starter plots. Tenants must remove self-sets and seek consent for any works to established trees, other than recognised fruit tree pruning.

Across all sites, the Council inspects on a three-year cycle and responds to emergencies, while routine or non-essential works remain a tenant or society responsibility.

Consultation

Tree works associated with projects not run by the Tree Team, or with trees growing on land not directly administered by the Tree Team, will follow the consultation protocols of the relevant service. This ensures that the justification for works is clearly set out within the context of the project or landholding concerned.

establish without deliberate planting. In early stages they are treated as ground or shrub vegetation and managed by City Services Operations, but once they reach a stem diameter of around 10 cm at 1.5 m above ground level they are considered trees and may then come under the Tree Team's inspection and management responsibilities.

All tree works instructed by the Tree Team will be published on the Council's <u>Planned tree works</u>⁷ web page for a minimum of 20 days. Ward councillors and relevant service leads will be notified at the same time.

Health and safety works: Decisions are delegated to the Tree Officer, to ensure that necessary control measures can be implemented without delay

Other works: Where objections are received that cannot be resolved by the Tree Officer, the matter will be referred to the Executive Councillor for determination

In reaching a final decision, the Executive Councillor will apply the established criteria:

- 1. The amenity value of the tree(s) and the likely impact of the proposed works on the character of the area; and
- 2. Whether the proposal is justified, having regard to the reasons put forward both in support of and against it

Street trees: In addition, the Council fulfils the statutory duty introduced by the Environment Act 2021 (now contained within the Highways Act 1980) to consult on the felling of street trees. This requires the publication of proposed works and consideration of representations before removal, except where works are urgently required for health and safety.

This streamlined process ensures consultation remains transparent and accountable while being proportionate in line with National Tree Safety Group guidance: urgent health and safety risks are addressed promptly, while works with wider amenity implications, including those covered by the new statutory street tree duty, are subject to public scrutiny and democratic decision-making.

How We Manage Protected Council Trees

Some trees managed by Cambridge City Council are legally protected because they are covered by a Tree Preservation Order (TPO) or are growing in a conservation area.

Council Trees with a TPO

In accordance with the Town and Country Planning Act and Regulation 13 of Town and Country Planning (Tree Preservation)(England) Regulations 2012, hen work is needed on a Council-owned tree that has a TPO, we follow the same process as required of others:

• A formal application is made, with details of the proposed work and reasons.

⁷ Last accessed 12/09/25

 The application is placed on the public register by the Greater Cambridge Shared Planning Service, who also manage consultation and make the decision.

This means decisions about Council TPO trees are open to public comment and scrutiny.

In urgent cases such as if a tree is dead or poses an immediate risk of serious harm, Regulation 14 allows us to act quickly, with short written notice instead of a full application.

Council Trees in Conservation Areas

With reference to Regulation 15, if a Council-owned tree is in a conservation area but not protected by a TPO, the Council is not required to notify the Greater Cambridge Shared Planning Service before works commence. However, the standard consultation process will be followed.

Damage and Compensation

Tree-related damage and compensation issues are addressed through two complementary strands of policy and practice.

Damage caused by trees

Cases of alleged subsidence or structural damage are managed in accordance with Policy M3 (Trees, Damage and Subsidence) and the approach set out in Topic Paper 4 (Trees, Subsidence and Structural Damage). The Council follows a clear mitigation hierarchy, giving priority to retaining trees wherever possible. Alternatives such as pruning, root barriers or engineering solutions are considered before removal. Claims are assessed using robust evidence and in collaboration with insurers, engineers, arborists and residents, ensuring outcomes balance property, environmental, reputational and financial risks.

Damage to trees

Where Council-owned trees are damaged, whether through unauthorised works, vandalism or third-party actions, the Council applies Policy P6 (Protecting Public Tree Assets) and the framework described in Topic Paper 11 (Tree Protection, Damage and Compensation). Enforcement action will be pursued where appropriate, and compensation sought to reflect both amenity and asset value. Valuation tools such as Capital Asset Valuation of Amenity Trees (CAVAT)⁸ will normally be used to establish fair and transparent compensation. The Council will work with legal services and partner agencies to ensure deterrence and recovery of costs, reinforcing the principle that public trees are community assets.

⁸ CAVAT last accessed 18/09/25

Adopted land and newly transferred trees

The Council periodically adopts land that includes trees, most commonly as part of major development sites, regeneration projects, or infrastructure schemes delivered by partners such as the Greater Cambridge Partnership. In some cases, the Council itself may create new landscapes which later fall into the Tree Team's management.

Where trees are to be transferred into the Council's direct management and incorporated into the baseline inspection and maintenance cycle, it is the responsibility of the relevant project officer or service lead to ensure that the Urban Forest Manager is provided with:

- Accurate information on tree species and locations;
- Planting specifications and establishment requirements; and
- Details of any associated maintenance funding or commuted sums to support long-term management.

All newly adopted or transferred trees must be added to the Council's Ezytreev® inventory before they can be managed as part of the three-year inspection cycle. This ensures that records are complete and accurate, enabling the Council to maintain consistent inspection, risk management, and accountability across the city's public tree stock.

Standards for planting and establishment on adopted land should follow the guidance set out in Topic Paper 2 (Tree Planting, Work and Third-Party Guidance), ensuring new trees are integrated to Council specifications.

TOPIC PAPER 2 TREE PLANTING, WORK AND THIRD-PARTY GUIDANCE

Policy Alignment

This paper supports delivery of the Urban Forest Strategy by operationalising policies under all four delivery approaches. It advances Plant more policies (PL1-PL4) through guidance on species selection, structural planting, climate-adapted trees and tree pits, as well as principles for establishment and replacement planting. It contributes to Manage more policies (M1-M5) by setting out good practice in pruning, explaining reasons for works, and clarifying processes such as third-party permits and dropped kerb applications. It underpins Protect more policies (P1-P6) through its guidance on resisting unnecessary removals, setting expectations for utilities, and highlighting statutory protections and Council powers. Finally, it reinforces Engage more policies (E1-E4) by extending guidance to private landowners, encouraging responsible management, and providing clear pathways for community participation in tree care and planting.

Purpose

Setting trees up to thrive for generations requires careful planning and sound practice. This paper sets out the Council's approach to tree planting and tree work, and also provides wider guidance applicable to private landowners, developers, utility companies and other third parties. It covers species selection, structural planting, and engineered tree pits, together with considerations for non-native and climate-adapted species. The paper also explains good practice in tree work, including pruning and removals, and sets out the processes for third-party interactions such as dropped kerb applications, pruning requests, and utility works. In this way both the Council and external partners can help maximise tree survival, minimise conflict, and support a resilient urban forest.

Introduction

For the most part trees develop in balance with their surroundings, both above and below ground. However, conflicts with people and property can result from natural processes, the effects of human activity, or poor species choice. These conflicts are more likely in urban areas where densification results in closer proximity and harsher rooting environments. Severe conflicts can have serious implications for the health and welfare of trees and/or the safety of people and property, necessitating tree work or removal. As trees are vital to the health and resilience of our urban areas, it is essential to adopt practices that maximise tree survival while minimising conflict.

Tree planting

Species Selection

Choosing the right tree for a location is essential to successful planting schemes, whether undertaken by the Council or by private landowners. The above- and belowground constraints of any site should inform the species choice, and suitable space should be provided for species that will make a meaningful contribution to the wider urban forest.

Rather than providing a fixed list of species (which can be limiting in terms of biodiversity), site-specific assessments of potential planting locations are recommended, along with expert advice on species choice.

Site constraint assessments need to consider:

- Tree health -soil type, light levels, ground cover
- Conflict -available rooting volume, access requirements, proximity to hard standing and structures
- Potential nuisance/inconvenience -leaf litter, fruit/nut fall, excessive shading, bird roosting
- Maintenance needs -watering, access for pruning, weeding, mulching

Structural Planting

Trees should be designed into developments and landscapes from the outset to maximise planting opportunities and optimise establishment and vigorous growth. On new developments this means that, in addition to ornamental planting, space should be provided for sustainable, structural planting. For private landowners, this means allowing adequate space on their property for trees to mature safely. Large and long-lived trees provide the greatest ecosystem services and are enormously beneficial to the urban forest. However, without forward planning, increased densification reduces the space available for these essential assets. Furthermore, the life of many new developments is relatively short compared with the life expectancy of a large tree. If trees are not located in sustainable positions they will inevitably be removed before their potential is realised, whether by redevelopment pressures or avoidable conflicts.

Non-Native and Climate Adaptive Species

Native trees provide essential ecological benefits by supporting native wildlife through the provision of food and shelter. Adapted to local conditions, they often require less maintenance to establish and may have a greater potential for survival. However, diversity is a key element of a resilient urban forest. Pests and diseases can devastate single-species populations, and climate changes are occurring too rapidly for some species to adapt. Both the Council and private landowners can broaden planting palettes to include species that are beneficial to local wildlife and

more tolerant of extreme drought or waterlogging. This approach increases overall success rates and helps secure resilience against future risks.

Tree Pits

Tree pits provide the necessary soil and root growth conditions to allow new trees to establish. They can be simple or engineered depending on required additional functions such as root management, stormwater management, urban cooling, and carbon sequestration. They can be soft or hard surfaced and decorative, but they must always allow for water, nutrient and air access, and root growth without conflict with surroundings. Effective tree pits are site specific and should be designed to maximise establishment and aid long-term tree health by ensuring a sufficient volume of uncompacted material to support a strong root system. This applies both to the Council's new plantings in the public realm and to private landowners creating new planting spaces on their own land.

Design considerations

Tree pits should:

- Be of sufficient size to allow healthy establishment. If designed to prevent breakout, the pit should allow sufficient rooting volume for the species chosen.
- Be designed to capture surface water. If designed to avoid breakout, the pit must allow for overflow/discharge to underdrain.
- Contain rooting material sufficient to aid healthy growth and provide ground structure if required.
- Consider future root growth and methods to direct or contain it.
- Provide removable grates or similar, if used.

The Council's Tree Planting Programme

The Council's tree planting and establishment programme includes planting, watering and young tree maintenance. It follows programmed works and begins in a geographical management area in the year following the tree maintenance and inspection cycle. Private landowners may also find these principles helpful when planning their own tree planting projects, particularly in terms of timing, replacement priorities and establishment care.

For Council planting, consideration of locations for planting in any single year will be prioritised in the following order:

- 1. Replacement planting -within the current planting management area.
- 2. Public and member replacement planting requests.
- 3. New planting locations -within the current planting management area.
- 4. Replacement planting -in other management areas.

When the decision is taken to remove a Council-owned tree, the Council prioritises replacement planting, considering whether it is appropriate to replant. Wherever possible, the site will be considered as a whole, reflecting its history, character, available space, use and local interests. In some situations, planting opportunities after a tree has been removed are significantly more expensive and difficult, as a new tree pit may have to be engineered and contend with underground services, aerial competition from street lamps, traffic signs and vehicle sightlines. Replacement plantings in these types of situations may take longer and be the subject of specific funding bids.

Establishment

Newly planted trees require monitoring and regular maintenance input to ensure that they successfully establish. For both Council plantings and privately planted trees, this may include weeding (either by herbicide or mulching), watering, and adjustment or removal of tree ties or guards. In most cases, a three-year establishment period of aftercare is recommended as a minimum.

Community support can help with establishment (https://www.cambridge.gov.uk/watering-new-trees).

Tree Work

To minimise negative impacts of pruning it is essential to consider the tools and techniques used, the situation in which the tree grows, the desired outcome, and how best to achieve it. A common assumption is that reducing the overall size of a tree will solve many conflicts; however, often the converse is true.

Unlike grasses, trees and shrubs are apically dominant, meaning that they grow from the tip. Removing the tip results in chemical reactions aimed at recovering lost leaf area as efficiently as possible. The tree therefore focuses on new shoot and leaf growth, with shoots often more prolific than those removed and leaves often larger. This can result in a denser, unnatural form and a canopy that conflicts with its surroundings. An alternative solution may be to remove lower branches (crown lift). This allows the tree canopy to occupy previously unusable space and increases light under the canopy while maintaining a natural, aesthetically pleasing form.

All tree work should be carried out in accordance with British Standard 3998:2010 and by a suitably qualified operative. This applies equally to Council trees and privately owned trees.

Reasons for Tree Works

The Council recognises that, in some situations, trees can cause residents significant problems and that the wrong type of tree may be growing in the wrong place. In these situations, the Council will act reasonably and responsibly and work to ensure an appropriate balance is reached between the interests of the individual,

the community and its legal obligations. Private landowners are also encouraged to weigh these same factors when considering tree works.

Works likely to be opposed (without robust, evidenced justification):

- 1. Interference with satellite TV reception or telephone wires
- 2. Improving light to solar panels
- 3. Perception that the tree is too large
- 4. Obstruction of view or natural light
- 5. Seasonal nuisance (leaf fall, fruit/berries/nuts, insects, birds, or honeydew)
- 6. Medical/allergy concerns
- 7. Perception that the tree will cause damage in the future
- 8. To replace a healthy mature tree to create space for new planting
- 9. Remedy issues with drains
- 10. Removal of overhang for convenience
- 11. Dropped kerbs (see also "Highway Trees and Dropped Kerb Applications" below)

Works likely to be supported:

- 1. Tree, or part of it, found by a qualified arborist to be in unreasonable condition in its context
- 2. Tree missed from a cyclical maintenance programme
- 3. Work to create or maintain reasonable access
- 4. Work to create or maintain reasonable clearance
- 5. Maintain sightlines
- 6. Remove obstruction

Common Pruning Practices

Provided below are descriptions of some of the more common and useful pruning practices. These apply equally to Council-managed trees and to those on private land.

- Crown lift -removal of lower branches to raise the height of the crown's base.
- Crown reduce -pruning the outer parts of the canopy to lessen overall size;
 excessive reduction should be avoided.
- Crown thin removal of a percentage of smaller branches, usually in the outer crown, to produce a lighter, more uniform canopy.
- Pollard -pruning method where branches are regularly cut back to a framework of specified height/width.

All works should be carried out in accordance with BS 3998:2010 and by a suitably qualified person with appropriate insurance.

Highway Trees and Dropped Kerb Applications

Dropped kerb applications are administered by Cambridgeshire County Council as the highway authority. Cambridge City Council provides arboricultural advice to inform decisions where existing street trees may be affected.

The Council will normally resist the removal of highway trees where they are well established and in good condition. Trees are an integral part of the street scene and their benefits, including shade, amenity, and contributions to biodiversity, are considered to outweigh the convenience of additional vehicle access in most cases.

Where removal is accepted as unavoidable, the Council will require the applicant to meet the cost of replacement planting and establishment. The current (2025) estimated cost is £500 per tree, which covers planting, aftercare, and establishment. Replacement planting will be sought as close as practicable to the original location to maintain canopy cover and continuity of the street's character.

Third Party Pruning Requests and Permit to Work

In some situations, third parties, including residents, developers or other organisations may request pruning of Council-owned trees where the Council itself would not normally undertake the work. This may arise where the request is not related to safety, or where the applicant wishes for works to be completed within timescales quicker than the Council can achieve through its programmed operations.

In such cases the Council operates a permit to work system. This allows third parties to apply for permission to prune Council-owned trees at their own expense, subject to conditions. Applications are considered on a case-by-case basis to ensure that any proposed works are reasonable, proportionate, and will not harm the long-term health or structure of the tree.

Further information, including application details, can be found on the Council's website Apply for a permit to prune Council trees.

Utility Companies and NJUG Guidelines

Utility companies working adjacent to or within the root or canopy zones of trees are expected to follow nationally recognised guidance, including the *NJUG Guidelines* for the Planning, Installation and Maintenance of Utility Apparatus in Proximity to Trees (Volume 4), and other applicable arboricultural and highway standards.

Expectations:

 Early Planning & Consultation -Utilities should undertake site surveys at the design stage to identify trees, root protection areas and canopy spread, and consult with the local authority tree officer to avoid conflicts.

- Respecting Tree Protection Zones -Prohibited, Precautionary and Permitted Zones (as defined in NJUG4) must be followed to minimise excavation and disturbance near trees.
- Methods to Avoid Damage -Works near trees should use appropriate techniques to reduce root loss, prevent soil compaction, and protect exposed roots.
- Above-Ground Clearances -Where overhead lines or other above-ground apparatus are installed, clearance distances must be maintained, and any necessary pruning must be in line with BS 3998:2010⁹.
- Protection of Legally Protected Trees -Trees subject to Tree Preservation Orders, Conservation Area controls, or planning conditions require full compliance with relevant legal procedures.
- Repair and Reinstatement -Where utility operations cause damage to trees, utilities are expected to provide suitable reinstatement, including replacement planting or remedial works, in consultation with the local authority.

Rights, Protections and Legal Powers

In addition to tree planting and tree work guidance, it is important to set out the rights and responsibilities of private landowners, and the legal powers available to the Council. The following sections summarise how common law rights, statutory protections, and specific legislation apply to trees in Cambridge, whether they are in public or private ownership.

Abatement

It is long established that branches of trees overhanging another's land may be cut back to the boundary by the landowner or their tenant without the permission of the tree owner. Notice should be provided to the tree owner if access to the tree or the land from which it grows is required, and any arising material (including fruit/nuts) should be offered back.

The Council recommends caution when exercising this right. Consultation with the tree owner is recommended before works are carried out, and only the minimum work necessary to resolve the nuisance should be completed.

Rights and Responsibilities for Private Landowners

Private landowners play a vital role in the health and resilience of the city's urban forest. The majority of trees in Cambridge are in private ownership, and the way they are managed has a direct impact on community well-being, biodiversity and climate resilience.

Rights:

- Ownership rights -Landowners own the trees growing on their land and have the right to enjoy their benefits.
- Abatement -As outlined above, landowners may prune branches that overhang their property back to the boundary, provided this does not breach legal protections.
- Reasonable enjoyment -Landowners can carry out tree works on their own land, subject to planning and conservation legislation.

Responsibilities:

- Duty of care -Landowners have a legal duty of care to ensure their trees do not pose an unacceptable risk to people or property.
- Compliance with protections -Works must not be carried out on trees subject to a Tree Preservation Order, Conservation Area controls, or planning conditions without formal consent.
- Good practice -Tree works should follow British Standard 3998:2010 and be undertaken by a suitably qualified and insured arborist.
- Sustainability -When removing trees, landowners are encouraged to replant where space allows, to sustain the contribution to the wider urban forest.
- Neighbour relations -Before undertaking works that might affect neighbours, consultation is encouraged to maintain good relations and avoid disputes.

By recognising both their rights and their responsibilities, private landowners can ensure that their trees remain safe, healthy, and valuable, while contributing positively to Cambridge's shared urban forest.

Legal Protection

Notwithstanding the above, no works to any trees should be carried out before ascertaining any legal restrictions. Trees may be protected by a Tree Preservation Order, Conservation Area designation, Planning Condition or Covenant. This applies equally to Council-owned and privately owned trees. Carrying out unauthorised works can result in enforcement action and significant penalties.

Works must also comply with wider wildlife legislation. All wild birds, their nests, and eggs are protected under the Wildlife and Countryside Act 1981 (as amended). Tree works should only proceed after a competent inspection of the tree and surrounding vegetation confirms that no active nests are present. The Council's Arboricultural Association appointed contractors are trained and competent to undertake these preliminary assessments. Similarly, bats and their roosts are protected under the Conservation of Habitats and Species Regulations 2017. Where there is a

reasonable likelihood of bats being present, advice from a licensed ecologist should be sought before works proceed.

Miscellaneous Provisions

The Local Government (Miscellaneous Provisions) Act 1976¹⁰ empowers the Council to make a tree safe where it poses an imminent danger. While disputes about trees between private parties are normally for those parties to resolve, the Council may intervene where:

- · a dangerous tree presents a risk to the public, and
- the owner is uncontactable, refuses, or ignores requests to make the tree safe.

In such cases the Council may take appropriate steps under the Act to remove the danger, and may seek to recover reasonable costs.



TOPIC PAPER 3.BIODIVERSITY AND HABITAT CONNECTIVITY

Policy alignment

- M2: The Council will follow Government and best practice advice regarding the control of pests and diseases.
- P2: The Council will resist the removal of/or excessive works to trees without robust and evidenced justification.
- PL1 (Aspirational): The Council will encourage and continue to seek new opportunities for tree planting in appropriate locations. This will include ensuring and encouraging a diversity of tree species, targeting areas that currently lack tree cover, and prioritising the planting of large-canopy and long-lived trees.
- E1: Through public and partnership engagement the Council will facilitate sustainable and proactive management of trees.
- E2 (Aspirational): The Council will seek to encourage joined-up approaches to tree management through partnerships with other Council services, managers of private trees, and by working with local communities and businesses.

Purpose

Urban trees form vital habitats and ecological corridors. This paper describes how The Council manages trees to enhance biodiversity, including veteran tree care, species diversity, and contributions to the Local Nature Recovery Strategy and Biodiversity Net Gain. The Council will seek to maintain high standards of biosecurity to reduce the introduction and spread of pests and diseases, ensuring a resilient treescape for the future

Introduction

Biodiversity is the variety of all life, encompassing different species, genetic variations, and the diverse ecosystems they inhabit. This complex web of life provides essential ecosystem services, such as clean air and water, food, medicine, and climate regulation, that are essential to the health and well-being of Cambridge.

Trees and woodlands are crucial for biodiversity, providing complex habitats for species ranging from fungi and lichens to birds and mammals, as well as supporting ecosystems through soil protection, climate regulation, and nutrient cycling. A single oak tree can host over 2,300 species, and the diversity of tree species in an area directly contributes to overall biodiversity and ecosystem resilience. Protecting and

planting trees that provide benefits to native flora and fauna is therefore a key strategy for addressing the biodiversity crisis.

Species Diversity

The UK is ranked 189 out of 218 for countries in terms of nature depletion ¹¹ with almost 15% of all species at risk of extinction. The primary causes include agriculture, urbanisation, inappropriate woodland management, invasive species, hydrological change and climate change. Climate change is thought to be responsible for the significant decline of some species and the rapid population growth of others, creating imbalances in ecosystems.

In Cambridge there are some of the lowest proportions of Priority Habitats and land designated for nature conservation. With approximately 13% forest cover in 2015, the UK is one of the least densely forested countries in Europe. This compares with 38% for the EU as a whole and 31% worldwide. 12

The necessary drive for innovation and economic growth has resulted in urban expansion. In a denser larger city, balancing the needs of both wildlife and people is challenging but, as it is essential for strengthening the City's resilience, we must work together to make space for nature in urban communities and the surrounding countryside.

Species diversity is key to the stability and resilience of an ecosystem. More diverse ecosystems are better able to withstand stresses such as drought or invading species.

Changes in climate from steady rises in temperature to acute weather events can significantly impact—tree health. This creates the need to diversify planting palettes, introducing more species tolerant of drought, waterlogging, extremes of temperature and pests and diseases. However, as sudden changes in habitat can have devastating impacts on the flora and fauna reliant on them, it is essential to consider the benefit of non-native tree species to native wildlife.

The Council continues to diversify its planting palette through trial and research while ensuring the use of native and, where possible, locally sourced tree stock.

We use national guidance and tools, such as TDAG's *Tree Species Selection* guide¹³ and the *Right Trees for a Changing Climate* tool¹⁴, to help choose species that will thrive in Cambridge's future climate.

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¹¹ Biodiversity Strategy 2022 to 2030 add link

¹² Forest Research 2017 add link

¹³ https://www.tdag.org.uk/tree-species-selection-for-green-infrastructure.html last accessed 12/09/25

¹⁴ http://www.righttrees4cc.org.uk/ last accessed 12/09/25

The management of tree populations and natural regeneration is also essential for enhancing species diversity. This includes the removal of trees to benefit grassland and riparian habitat as well as maximizing habitat types within woodland areas.

Habitat Connectivity

Healthy ecosystems depend not only on the diversity of species but also on the connections between habitats. Isolated green spaces can limit the movement and survival of wildlife, while connected networks of trees, hedgerows, riversides, and woodlands allow species to move, feed, and adapt to changing conditions.

In Cambridge, the background matrix of trees created by the distribution of the urban forest plays a vital supporting role. It underpins areas of higher biodiversity value by creating ecological corridors, providing habitat for more common species, and buffering sensitive habitats. At the same time, it delivers wider ecosystem services, including air pollution amelioration, urban cooling, and the interception of stormwater run-off that protect these more sensitive areas.

Through careful tree protection, planting, management and engagement, the Council seeks to strengthen these ecological connections across the city, linking parks, gardens, watercourses, and the wider countryside. This approach supports the Local Nature Recovery Strategy and the Council's Biodiversity Strategy, ensuring that the urban forest functions as part of a joined-up, resilient network of habitats.

Veteran Tree Care

Veteran trees are some of the most valuable trees in the landscape. In addition to providing a sense of history and contributing to aesthetic appeal they are a significant resource providing unique habitats, for a wide range of fungal, plant and animal life.

The importance of veteran trees is not widely understood and a desire for uniformity and overconcern for risk has resulted in the premature loss of these living ecosystems and the significant biodiversity benefits they provide.

In 2004 a survey was commissioned by Cambridge City Council to establish the presence, location and species of veteran trees in Cambridge¹⁵.

In 2018 a further survey was commissioned to assess the number, location and value of ancient and veteran trees on Sheep's Green and Coe Fen. ¹⁶ The survey established that of the 390 trees on Sheep's Green and Coe Fen 50 are ancient

¹⁵ https://www.cambridge.gov.uk/media/7447/veteran-trees-in-cambridge-booklet-2004-red.pdf (last accessed 12/09/25

¹⁶ https://www.cambridge.gov.uk/media/7446/180831-12-sg-veteran-tree-report-reduced.pdf last accessed 12/09/25

and/or veteran and 17 are advanced candidate veteran trees. A further 53 premature candidate veteran trees were identified for proactive management, helping ensure a continuing population of these biodiversity assets¹⁷.

Biosecurity

Tree pests and diseases pose a significant impact on tree populations and the habitats they provide. Following a significant increase in non-native tree pests and diseases introduced into the United Kingdom since the early 2000s, it is essential that we reduce the risk of introducing and spreading tree pests and diseases by applying simple biosecurity measures.

Everyone can help by:

- Avoiding driving or parking natural surfaces when visiting park, gardens and woodlands.
- Cleaning footwear, pets, bikes and prams.
- Not bringing plants material from abroad

In addition to the above the Council encourages its staff and contractors to regularly clean all kit, vehicles and machinery.

The Council will continue to source planting stock responsibly, prioritising pest- and disease-free areas and nurseries that follow recognised national standards or robust biosecurity policies. Wherever possible, stock will be obtained from suppliers accredited under the Plant Healthy Certification Scheme¹⁸, which provides independent assurance of high standards in plant health and biosecurity management.

Collaboration

The Urban Forest Strategy supports and aligns with the Council's Biodiversity Strategy but is subordinate to it. In practice, this means that in areas of high biodiversity value, tree management decisions will be taken with safety as the first priority, and biodiversity value considered second, in close collaboration with the Council's Biodiversity Team. This ensures that statutory duties are met while protecting and enhancing ecological value wherever possible.

The Uban Forest Strategy has been developed alongside the Biodiversity Strategy mid-period review and the Cambridgeshire and Peterborough Local Nature Recovery Strategy.

The Council collaborates with partners including Cambridgeshire County Council, Greater Cambridge Shared Planning Service, Natural England, the Wildlife Trust

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¹⁷ https://www.cambridge.gov.uk/veteran-tree-management-on-sheeps-green-andcoe-fen last accessed 12/09/25

¹⁸ Certification - Plant Healthy last accessed 12/09/25

BCN, local universities, and community groups. These partnerships integrate urban forestry with wider conservation efforts, improve ecological connectivity, and provide opportunities for community involvement. Through this collaborative approach, the Council will ensure that its urban forest contributes fully to statutory biodiversity duties and regional nature recovery.



TOPIC PAPER 4: SUBSIDENCE AND STRUCTURAL DAMAGE

Policy alignment

This paper supports delivery of Manage More policies M1 (legal obligations), M3 (damage) and M4 (capacity and resourcing); Protect More policy P2 (planning controls); Plant More policies PL1-PL4 (planting, establishment, innovation and diversity); and Engage More policies E1-E4 (engagement, partnerships and awareness).

Purpose

Subsidence and other structural damage caused by trees can be complex and contentious. This paper sets out the evidential standards required, the Council's mitigation hierarchy, and the legal and policy context guiding decisions. It explains how the Council works with insurers, engineers, and residents to resolve cases fairly.

This approach protects Cambridge's urban forest, safeguards public amenity, and ensures that limited resources are spent effectively while meeting legal duties of care and liability.

Introduction

This paper is based on the understanding that trees provide numerous benefits to the health and liveability of Cambridge, while recognising that damage caused to property by trees can have financial implications and affect a householder's quality of life. It is essential therefore to balance the many benefits that trees provide against the physical and financial impact of trees causing damage to buildings.

Structural damage may be caused by direct pressure resulting from annual growth and/or root activity, or indirect damage, which results from the extraction of moisture by fibrous roots from certain soil types.

Most trees co-exist with buildings with minimal conflict, and when damage does occur it is not necessarily a result of tree root activity, even if there are trees present and in proximity. Furthermore, if trees are implicated in damage, alternatives to pruning or felling may solve the issue. The value of trees to the public varies, from limited amenity value, through some amenity value, to special or outstanding amenity value. Accordingly, the greater the amenity value of a tree, the more compelling and comprehensive the evidence must be before works to mitigate alleged damage will be supported. Conversely, trees with limited amenity value, for example because they have a short safe useful life, will require less evidence. This principle helps facilitate timely decision-making and avoid unnecessary delays.

Direct Damage

The physical expansion of woody roots as trees increase in size can affect light structures (e.g. boundary walls, porches, driveways and pavements). Roots may also enter cracked and leaking drains or sewers, blocking the flow of water and exacerbating damage. Direct damage can also be caused by the stem or branches through direct pressure resulting from annual growth or movement in the wind.

Evidence of Direct Damage

Where direct damage is alleged, the claimant or their agent must provide evidence sufficient to demonstrate, on the balance of probability, that the tree is the effective cause. Evidence should include:

- A clear description of the damage, including its nature, extent and location.
- Photographs showing both the damage and the tree alleged to be responsible.
- A plan or sketch identifying the position of the tree(s) relative to the affected structure.
- Where drains or services are implicated, a CCTV drain survey or other relevant investigation showing root ingress or obstruction.
- An engineer's or surveyor's report setting out causation, with consideration of alternative causes (e.g. defective construction, ground movement, wear and tear).

Drain Damage

It is important to distinguish between tree roots causing direct damage to drains, and tree roots exploiting existing defects. In many cases roots are opportunistic, they are attracted to moisture and enter drains through pre-existing cracks or faulty joints. In such cases, the tree is not the primary cause of damage, and the appropriate remedy is to repair or replace the defective drain. Only where robust evidence demonstrates that root pressure has directly fractured or displaced an otherwise sound drain will tree works be considered.

Cost Assessment

For transparency, mitigation requests and claims relating to direct damage should also include a breakdown of estimated costs under different scenarios. This should set out:

- the estimated costs of repairing or rebuilding the affected structure while retaining the tree;
- the estimated costs of tree removal, including replacement planting, ongoing monitoring, and any associated engineering works; and

 the comparative financial, amenity and environmental implications of each option.

In addition, it should be demonstrated what proportion of the estimated costs are directly attributable to the tree, and what proportion arises from other factors such as foundation inadequacy or climate-driven soil movement. Reports should clearly distinguish between these contributory causes, so that tree-related costs are not overstated.

These costs should be presented in a transparent, itemised format so that decision makers can fully weigh the options and ensure that any decision to remove or retain a tree is evidence-based, proportionate, and defensible.

Avoidance of Direct Damage

Most direct damage can be avoided if best practice is followed at the design and construction stage. Compliance with *BS 5837:2012 - Trees in relation to design, demolition and construction* is essential. This standard sets out the requirements for surveying existing trees, establishing root protection areas, and designing foundations, surfacing, and underground services to avoid future conflict. The Council expects developers, contractors and landowners to follow *BS 5837* guidance wherever construction or excavation is proposed in the vicinity of trees. Failure to do so may increase the likelihood of avoidable damage and limit options for later resolution.

Indirect Damage (Subsidence)

Trees contribute to subsidence when they remove moisture from a dynamic soil beneath foundation depth. Concern about the risk of subsidence and proximity of trees to buildings can lead to their unnecessary felling or pruning.

If tree root activity is evidenced to be the cause of or a contributing factor to subsidence it is not always necessary to fell the tree as alternative solutions might be appropriate. Typically, however, alternative solutions are significantly more costly; therefore it may be necessary to balance the amenity value of the tree(s) and the availability of funding against the cost of alternative solutions.

Current Council Practice

In areas of known high risk, the Council already undertakes preventative management to mitigate the potential for tree-related subsidence. This includes biennial or triennial crown reductions of certain tree populations to maintain them at a smaller size than they would reach at full maturity. Examples include the London plane at Alexandra Gardens, Maids Causeway and Newmarket Road. This cyclical management helps reduce water demand from trees in shrinkable soils while retaining their public amenity and environmental value.

The Council does not, however, proactively assess individual trees for subsidence risk. Each case is dealt with as it arises, based on the evidence provided. This is because there are too many unknowns to allow for meaningful proactive assessment without detailed site specific investigations, which the Council cannot undertake at scale for reasons of cost, resourcing, and lack of access to private property. Factors such as whether roots extend beneath foundations, the type and depth of foundations, and the nature of soils beneath individual buildings can only be established through intrusive investigations carried out by claimants or their agents.

Proactively removing trees without clear evidence of risk would also be unsustainable and counterproductive. It would result in unnecessary loss of canopy cover, reduce resilience to climate change, diminish biodiversity, and contribute to local "urban desertification" through loss of shading and evaporative cooling. For these reasons, the Council requires robust, case-by-case evidence before supporting tree removal on subsidence grounds.

Evidence

Protected Trees - Statutory Requirements

Government guidance is clear that, where subsidence or structural damage is alleged in support of works to protected trees, applications must be accompanied by detailed technical evidence. For Tree Preservation Order(TPO) applications, this evidence is mandatory: applications without it are invalid and will be returned. For Conservation Area notifications, while the same evidence is not a statutory requirement, the Council will normally resist removal or significant works to healthy trees unless robust evidence of this type is provided. Protected trees may be in either public or private ownership.

Council-Owned Trees - Alignment with Protected Tree Standards

Council-owned trees are public assets. They are not generally protected by TPOs, since their management is already controlled by the Council as landowner. However, because they are typically located in public places, they usually provide a higher baseline of amenity value than privately owned trees.

For this reason, the Council requires that the same evidential standards are applied when assessing claims or mitigation requests relating to its own trees as would apply to protected trees. This approach ensures that community assets are only removed or reduced where robust and transparent evidence demonstrates it is necessary, and that decisions are proportionate, defensible, and consistent with the statutory framework.

Clarification on Evidence Standards

The requirement to provide technical evidence is mandatory where works are sought because of alleged subsidence or structural damage. Government guidance

prescribes the categories of evidence that must be supplied (for example monitoring data, foundation depth, soil analysis, root identification, costings). However, the level of detail within each category is not defined in statute. The Council therefore interprets these requirements to ensure that evidence is complete, transparent, and robust. Where submissions fall short of the mandatory categories, they will be refused or returned as invalid. Where submissions provide the required categories but lack sufficient clarity or detail, the Council will request further information before reaching a decision.

Amenity Value Categories

Although Article 5 certificates were removed from legislation, the DETR Guide (2000, paras 6.69-6.70) provided useful definitions of the terms *special* and *outstanding amenity value*. While no longer part of current statutory guidance, these definitions remain relevant as a practical way of distinguishing levels of amenity. Trees of outstanding amenity value were described as typically dominant features in the landscape, while trees of special amenity value were defined as those performing a particular function in their setting, such as screening development.

The Council continues to apply these distinctions as part of its assessment of mitigation requests or claims, using them to calibrate the evidential standard required in proportion to the level of amenity value at stake. Accordingly, the framework applied is:

- Trees of limited amenity value (for example, young trees, those with structural defects, or those nearing the end of their safe useful life) will require less detailed evidence to justify intervention.
- Trees of some amenity value (for example, healthy street or garden trees
 making a positive but not distinctive contribution to the local environment) will
 require a reasonable level of evidence, including monitoring and engineering
 reports, before removal or significant works will be considered.
- Trees of special amenity value will require robust evidence that clearly demonstrates the causal link between the tree and the alleged damage, alongside an assessment of alternatives.
- Trees of outstanding amenity value will require the most rigorous and comprehensive evidence before removal or significant works will be considered.

This tiered approach facilitates decision-making, ensures proportionality, and avoids delays by making expectations clear from the outset.

Subsidence reports

Reports should be provided by a structural engineer or a chartered surveyor and be supported by technical analysis from other experts (for example for root and soil analysis). The sequence of investigation is important:

- Site investigations and level/crack monitoring should first be completed to establish the pattern and likely causes of movement.
- An engineer's report should then assess this data to determine whether there
 is a probable causal link between soil behaviour, building movement and
 nearby trees.
- Only once such a causal link is established should an arboricultural report be commissioned to consider whether tree management or removal is an appropriate response.

These reports must include the following information:

- A description of the property, including a description of the damage and the crack pattern, the date that the damage first occurred/was noted, details of any previous underpinning or building work, the geological strata for the site identified from the geological map.
- Details of vegetation in the vicinity and its management since discovery of the damage. Include a plan showing the vegetation and affected building.
- Measurement of the extent and distribution of vertical movement using level monitoring. Where level monitoring is not possible, state why and provide crack-monitoring data. Data provided must be sufficient to show a pattern of movement consistent with the presence of the implicated tree(s).
- A profile of a trial/bore hole dug to identify foundation type and depth and soil characteristics, with explicit confirmation where shallow foundations are present, as these are particularly vulnerable to soil shrinkage and tree root influence.
- The sub-soil characteristics including soil type (particularly that on which the foundations rest), liquid limit, plastic limit and plasticity index.
- The location and identification of roots found. Where identification is inconclusive, DNA testing should be carried out.

Proposals and estimated costs of options to repair the damage, presented in a transparent, itemised format. Claimants must demonstrate what proportion of the estimated costs is directly attributable to the tree, and what proportion arises from other factors such as foundation inadequacy or climate-driven soil movement. This ensures proportionality and prevents tree-related costs being overstated.

In addition, a report from an arboriculturist must be included to support the tree work proposals, setting out arboricultural options for avoidance or remediation of indirect tree-related damage. Where tree removal is recommended, the report must provide clear reasons why lesser works (such as pruning, cyclical management, or installation of barriers) are not considered appropriate or sufficient.

Other Structural Damage - Required Reports

Technical evidence in respect of other structural damage (e.g. garden walls, drains, paving, drive surfaces) should be provided by a relevant engineer, building/drainage surveyor or other appropriate expert.

Heave Risk

When trees are removed from shrinkable clay soils, there is a risk of ground heave, upward movement caused by the rehydration and swelling of soils that have previously been desiccated by tree roots.

For this reason, technical reports must explicitly consider the potential for heave as part of any remediation assessment. The Council will require evidence that the risk of heave has been assessed and factored into proposals. Where a significant risk is identified, tree removal may not be supported unless appropriate engineering or alternative solutions are demonstrated.

Shallow Foundations

Shallow or defective foundations are a significant risk factor for building movement on shrinkable clay soils. Even in the absence of nearby vegetation, inadequate foundations can be prone to seasonal movement, particularly during periods of prolonged drought. Where shallow foundations are present, the potential for tree root activity to exacerbate this movement increases.

For this reason, investigation reports must explicitly identify foundation depth and adequacy. Where foundations are shown to be shallow or otherwise unsuitable for prevailing soil conditions, this must be considered when assessing causation and liability. In such circumstances, the presence of nearby trees may not be the effective cause of damage.

The Council will therefore require any claim or mitigation request to demonstrate clearly whether foundations are adequate, and to consider whether the observed damage is attributable primarily to foundation vulnerability rather than tree root influence. This ensures that tree removal is not used to address structural weaknesses that originate from construction design or standards, rather than from vegetation.

Climate Change Considerations

Climate change is projected to increase the frequency and intensity of summer droughts, leading to deeper and more prolonged soil moisture deficits in shrinkable clay soils. This increases the risk of seasonal ground movement where foundations are shallow or inadequately designed. As a result, buildings that may historically have been stable can become more vulnerable over time.

These changing conditions alter the balance of causation in subsidence cases. While tree root activity may contribute to soil desiccation, the underlying vulnerability of foundations to drought-related shrinkage must be carefully assessed. The Council therefore requires structural and engineering reports to address explicitly the likely influence of climate change on foundation stability, and to consider whether observed movement can reasonably be attributed to vegetation as opposed to wider climatic trends.

By embedding climate projections into the assessment of subsidence risk, the Council seeks to ensure that decisions on tree management or removal are evidence-based, proportionate, and resilient to future environmental conditions. This approach avoids over-attributing causation to trees in circumstances where climatic factors may play a more significant role and ensures that public tree assets are not unnecessarily lost in response to issues that originate primarily from foundation vulnerability or broader environmental change.

Avoidance of Subsidence Damage

Most tree-related subsidence can be avoided through appropriate planning, design and management of both trees and buildings. The Council therefore promotes the following preventative measures:

- **Foundation design** ensure foundations are constructed to a depth and specification appropriate to local soil type and the anticipated mature size of nearby trees and to allow for future tree planting.
- Avoid shallow foundations where new buildings or extensions are
 proposed on shrinkable clay soils, shallow foundations should be avoided as
 they are particularly prone to seasonal movement and tree-related
 subsidence.
- Species selection and planting distance avoid planting high waterdemand species too close to buildings or structures, particularly on shrinkable clay soils. Tree planting plans should consider the ultimate size and rooting potential of the species.
- Diversity and resilience planting a diverse range of tree species helps to avoid over-reliance on species that may pose higher subsidence risks on sensitive soils.

- Water management sustainable drainage systems, rain gardens and permeable surfacing can help stabilise soil moisture levels and reduce differential drying beneath foundations.
- **Design compliance** developers, contractors and designers should follow the principles set out in *NHBC Standards Chapter 4.2 Building near trees* and relevant British Standards.
- Ongoing monitoring residents and property owners are encouraged to maintain buildings, drains and gutters in good condition, reducing opportunities for water ingress or ground instability that may be wrongly attributed to trees.

By promoting preventative measures, the Council seeks to reduce the likelihood of conflict between trees and buildings, protect public tree assets, and minimise the financial burden of subsidence claims on both residents and the public purse.

Mitigation Hierarchy

When trees are implicated in subsidence or structural damage, the Council will apply a clear mitigation hierarchy to ensure that tree removal is considered only as a last resort:

- Do nothing monitor to establish whether movement is progressive or seasonal and self-limiting.
- 2. **Engineering solutions** underpinning, drain repair, or other building-focused interventions to resolve damage without tree works.
- 3. **Tree management** cyclical crown reduction or root pruning, carried out with arboricultural advice, to reduce water demand or alleviate direct pressure.
- 4. **Tree removal and replacement** considered only if all other reasonable options are unviable or disproportionate, and where the balance of evidence shows that removal is necessary to prevent further damage.

In all cases the Council will explore the available options, but the final decision must weigh the public amenity value of the tree against both (a) the direct financial cost of mitigation and (b) the wider impact on Council budgets and services.

Legal Context on Liability and Compensation

Decisions on tree-related damage must reflect not only arboricultural and amenity considerations but also the legal framework governing liability and compensation.

Common Law Duties

At common law, tree owners may be liable in nuisance where their trees cause actual damage to neighbouring land or structures. Liability arises if, on the balance of

probabilities, the tree is the effective cause of the damage. Once notified of a problem, the tree owner has a duty to take reasonable steps to abate the nuisance.

Compensation under TPO Law

Under section 202E of the Town and Country Planning Act 1990, if the Council refuses consent for works to a tree protected by a Tree Preservation Order (or grants consent subject to conditions) and the tree later causes actionable damage, the Council may be liable to pay compensation. Such liability is limited to losses that were reasonably foreseeable within 12 months of the decision.

Implications for Evidence and Decision-Making

This legal framework underlines the importance of requiring robust and transparent evidence before making decisions on mitigation requests or protected tree applications. The Council's amenity-based tiers of evidence ensure proportionality in decision-making. However, once robust causation is established, the Council cannot disregard the duty to abate nuisance, even for trees of high amenity value. In such cases, the balance of options will consider whether less destructive, reasonable alternatives (such as engineering solutions) are available before tree removal is contemplated.

TOPIC PAPER 5. PUBLIC ENGAGEMENT AND PARTNERSHIPS

Policy Alignment

Public engagement and partnership actions directly support the Urban Forest Strategy delivery approaches, particularly Engage More:

- Policy E1: Through public and partnership engagement the Council will facilitate sustainable and proactive management of trees.
- Policy E2: Encourage joined-up approaches across services, communities, and businesses through donations and sponsorship.
- Policy E3: Quantify the benefits of Cambridge's urban forest with opportunities for community participation.
- Policy E4: Provide clear, accessible information about tree management and planting through web platforms and consultation processes.

They also contribute to corporate priorities: tackling climate and biodiversity emergencies, addressing inequality by focusing on underserved wards, and modernising the Council through evidence-led engagement

Background

The urban forest belongs to everyone, and its future depends on shared stewardship. Less than 25% of land in Cambridge is directly owned or managed by the Council, making collaboration with residents, businesses, schools, and partner organisations essential. Engagement is therefore not an optional extra but a core delivery mechanism of the Urban Forest Strategy.

The Council has built a strong track record of community engagement through flagship projects such as the Cambridge Canopy Project (2019-2023) and the ongoing work of the Biodiversity Project Officer, supported by legacy funding. These programmes have combined planting, education, citizen science, and cultural activities to increase awareness of the value of trees and involve the community in their care.

Community Programmes and Initiatives

Free Trees for Babies

A legacy scheme offering a commemorative tree to mark the birth of a child, planting the urban forest into residents' gardens. Between 2016/17 and 2023/24, a total of 1,843 trees were distributed.

Trees for Babies scheme - Cambridge City Council

Trees for Streets Sponsorship

Cambridge was the first council to partner with this national charity in 2019. Residents and businesses can sponsor new street trees, covering planting and establishment costs, and directly contributing to canopy growth.

Sponsoring new trees - Cambridge City Council

Watering New Trees

Community involvement is vital to establishment. The Council encourages residents to help water newly planted street and park trees during dry periods.

Watering new trees - Cambridge City Council

Neighbourhood Canopy Campaign

Targeted planting in areas of need, supported by residents and community groups, often themed to local priorities such as pollinators or climate resilience.

Neighbourhood Canopy Campaign - Cambridge City Council

Volunteer Planting in Parks

Planting events in parks and open spaces, delivered in partnership with the Community Engagement Team, allow residents and volunteers to actively contribute to canopy expansion while learning about species diversity, aftercare, and the wider benefits of trees. These events strengthen local ownership and create lasting links between communities and their green spaces.

Tree Trails and Mapping

Interactive online resources and downloadable trails connect residents with heritage and landmark trees, fostering place-based pride and environmental education

Tree trails - Cambridge City Council

Tree Data Portal

Open access to tree data (location, species, management status) promotes transparency, supports citizen science, and underpins engagement with schools, universities, and community researchers.

Tree data - Cambridge City Council

Comment on Planned Tree Works

The Council encourages residents to take an active role in scrutinising and shaping how trees are managed. Through the planned tree works consultation webpage, residents can review forthcoming maintenance proposals and submit comments or objections before works proceed. This open process enhances transparency, builds trust, and ensures that community views are considered in balancing safety, biodiversity, and amenity when making arboricultural decisions.

Comment on our planned tree works - Cambridge City Council

Track Record of Partnerships

Cambridge has established a strong record of working with external partners to deliver innovative and impactful urban forestry projects. These collaborations demonstrate the Council's ability to leverage external expertise and funding, while engaging communities in shared stewardship of the urban forest:

 Nature Smart Cities (Interreg 2 Seas) & Cambridge Canopy Project (2019-2023)¹⁹

Delivered as part of a European climate adaptation programme, the Canopy Project combined canopy cover analysis, priority planting, and community engagement. It secured significant EU funding and showcased the benefits of cross-border collaboration.

• i-Tree Eco Project (2021)²⁰

Undertaken in partnership with Anglia Ruskin University, the project trained students as surveyors and quantified Cambridge's canopy in terms of carbon storage, pollution removal, stormwater regulation, and asset value. This established a shared evidence base for policy and public engagement.

• DiversiTree Project (2023-2026)²¹

Part of the River Cam CAN partnership and funded by the National Lottery, this project focuses on veteran and heritage willows along the River Cam. It combines cultural heritage with biodiversity management and community storytelling.

Trees for Streets Sponsorship²²

A long-term partnership with the national charity Trees for Streets, enabling residents and businesses to sponsor new street trees. Cambridge was the

²⁰ XXXX

¹⁹ XXX

²¹ XXXX

²² XXXX

first council in the UK to sign up (2019), helping to establish the model nationally.

Earthwatch UK²³ - Tiny Forest²⁴

In 2023, Cambridge worked with Earthwatch UK to deliver a "Tiny Forest" at Five Trees, Chesterton, involving schools, volunteers, and residents in planting 600 whips. This living classroom demonstrates climate resilience and biodiversity benefits at a community scale.

Delivery of the Strategy depends on strong collaboration:

- Public sector partners: Greater Cambridge Shared Planning Service (statutory tree protection), Cambridgeshire County Council (schools, highways), Greater Cambridge Partnership (infrastructure projects).
- Charities and networks: Trees for Streets, Cambridge Nature Network, local wildlife trusts, and community festivals such as the Cambridge Nature Festival.
- Academia: Anglia Ruskin University and University of Cambridge contribute through research, monitoring, and student engagement (e.g. i-Tree Eco survey).
- Businesses and residents: Sponsorship, volunteering, and responsible tree management on private land.

Conclusion

Public engagement and partnerships are not peripheral to urban forestry they are central to delivery. Cambridge's community planting events, sponsorship schemes, education resources, and collaborative projects demonstrate both innovation and capacity to mobilise shared stewardship. Strengthening these initiatives through the Urban Forest Strategy will ensure that every resident, from a new parent receiving a free tree to a local business sponsoring a street tree, could shape and sustain Cambridge's urban forest.

²³ link

²⁴ define

TOPIC PAPER 6: GOVERNANCE AND RESOURCING

Policy Alignment

This paper supports:

- Policy M4: Capacity and Resourcing of the Council's Tree Asset.
- Aim: Strengthening the capacity and resourcing needed to deliver the Strategy.

It also underpins the Engage More approach, recognising that the majority of Cambridge's canopy lies outside Council ownership and must be delivered through shared stewardship.

Purpose

This paper explains how Cambridge's Urban Forest is governed and resourced. It sets out the roles of different Council services in relation to trees, how resources are allocated, and how governance arrangements ensure transparent, coordinated delivery. It applies to both the Council's directly managed tree asset and the wider urban forest across Cambridge.

Introduction

The Urban Forest Strategy (Strategy) is a corporate strategy, binding on all Council services. Its adoption establishes a consistent framework for decision-making and investment, reducing fragmentation and aligning local action with national policy and best practice.

Less than 25% of land in Cambridge is owned or managed by the City Council, meaning most tree canopy lies on private or institutional land. Delivering the Strategy therefore requires not only strong internal governance and resourcing but also wider partnerships across sectors and with residents.

This paper should be read in conjunction with Topic Papers and 2.

Governance within the Council

The Council's Leadership Role in Urban Forestry

Cambridge City Council is not only a manager of its own tree stock but also the body best placed to lead on the governance of the City's wider urban forest. Local authorities are the primary delivery agents of urban forests²⁵, as they:



- Hold statutory powers to protect trees (Tree Preservation Orders, Conservation Area designations, and planning policy).
- Manage large areas of public tree canopy, including parks, commons, cemeteries and housing land.
- Integrate tree management into wider agendas such as climate adaptation, biodiversity recovery, flood resilience, public health, and place-making.
- Directly administer statutory consultation duties, including the Environment Act's street tree provisions.
- Are able to influence decisions beyond their own estate, ensuring that private, institutional and developer-owned trees contribute to citywide canopy targets.

The Council's arboricultural service directly manages around 30,000 trees, maintains highway trees on behalf of the County Council, and provides advice across other service areas. Through public-facing programmes and statutory frameworks, the Council acts as both steward of its own asset and strategic coordinator of the wider urban forest, ensuring that all stakeholders contribute to sustaining and expanding Cambridge's canopy.

Functional Responsibilities

Council responsibilities for trees can be grouped into four functional categories:

1. Tree Asset Managers

Teams with day-to-day responsibility for inspection, maintenance, planting and record-keeping.

Tree Team (City Services - Public Realm):

- Leads delivery of the Strategy.
- Directly manages the corporate tree asset (parks, commons, recreation grounds, nature reserves, closed churchyards, communal housing land).
- Manages highway trees on behalf of Cambridgeshire County Council, with costs recouped annually.
- Oversees cyclical inspections, reactive works, planting, consultation and risk management.
- Maintains live asset data on Ezytreev®.

2. Landowners / Service Managers

Services that hold land on which trees grow, responsible for funding or instructing works, with advice from the Tree Team.

Housing (City Homes & Repairs and Compliance Team):

• Trees in communal open space are inspected by the Tree Team.

 Communal gardens and tenanted gardens are managed by Housing, with arboricultural advice provided.

Property Services: Trees on commercial estate and corporate buildings.

Car Parks Team: Trees on Council managed car park land

Bereavement Services: Trees in Newmarket Road Cemetery and the crematorium grounds

Drainage Services: Trees on drainage land.

Operations (Open Spaces): Manage shrubs, self-sets and wider vegetation alongside trees.

3. Support Services

Specialist teams providing enabling expertise to ensure the Strategy is delivered consistently and transparently.

Biodiversity Team: Balance safety with ecological value, integrates trees into the Biodiversity Strategy and Local Nature Recovery Strategy.

Climate Team: Ensures urban forest delivery aligns with the Climate Change Strategy and supports carbon reduction, cooling and resilience.

Project Delivery Team: Provides programme and project management skills to deliver environmental improvements, including the design and installation of engineered tree pits, sustainable drainage systems, and other infrastructure requiring technical coordination.

Communications Team: Deliver clear and consistent public communication, press releases, digital news, ensuring residents and stakeholders are informed and engaged in urban forest initiatives. They provide web support and administer the Council's tree webpages.

ICT Teams: Provides digital mapping, interactive canopy maps.

Legal & Finance: Provide advice on statutory duties, liabilities, compensation, procurement and funding bids.

Community Engagement Services: Support public-facing programmes such as Free Trees for Babies, Planting in Parks and Neighbourhood Canopy Campaigns.

Customer Services Team: Triages public enquiries, answering straightforward or less technical questions quickly and efficiently, and directing more complex matters to the Tree Team.

4. Strategic Alignment and Oversight

Functions that ensure trees are embedded into corporate priorities, statutory planning and external partnerships.

Greater Cambridge Shared Planning Service (GCSPS): Administers TPOs, Conservation Area notifications, enforces tree protection and applies Local Plan tree policies.

Executive Councillors and Senior Management: Provide political and corporate oversight, approving strategies and budgets.

Cambridgeshire County Council (Highways): Retains ownership and liability for highway trees, funding the City Council to manage them.

Greater Cambridge Partnership (GCP): Designs and funds major transport schemes with significant tree impacts, requiring early arboricultural input.

Resourcing the Strategy

Core Council Resources

Tree Team capacity: A small team of qualified arboriculturists, supported by approved framework contractors.

Technology and systems: Ezytreev®, GIS, canopy mapping, i-Tree Eco.

Base budgets: Fund cyclical inspections, consultation, engagement and routine maintenance.

Innovation and efficiency: Ward-based inspection cycles, digital platforms and data-led prioritisation to maximise the value of limited resources.

External and Supplementary Resources

Grant funding: e.g. Forestry Commission schemes - Urban Tree Challenge Fund, Local Authority Treescapes Fund; National Lottery.

Sponsorship and donations: e.g. Trees for Streets.

Partnership delivery: e.g. Cambridge Canopy Project; DiversiTree.

Human Resources and Skills

- Maintaining arboricultural and biodiversity expertise within the Council.
- Training, upskilling and succession planning to retain long-term capacity.
- Partnerships with universities, volunteers and contractors to extend delivery capacity.

Transparency and Accountability

All works are subject to proportionate consultation and recording.

- Annual reporting of tree planting, removals, and statutory protection ensures accountability.
- KPIs (e.g. canopy cover change, ecosystem service benefits, statutory protection outcomes) track delivery.
- Topic Papers provide procedural clarity, supporting consistent and transparent governance and together form part of the governance framework that ensures decisions are accountable and defensible.
- The Communications and ICT teams play a key role in this by publishing information online, hosting interactive maps, and supporting consultation platforms

Wider Governance of the Urban Forest

Beyond the Council, the majority of Cambridge's canopy lies on private land, university and college estates, and other institutional grounds. Effective governance therefore depends on:

University of Cambridge and Colleges: Major landowners and custodians of heritage tree populations.

Cambridgeshire County Council: Owner of highway trees and responsible for trees on land associated with local authority-maintained schools and other County-managed institutions, making them a key partner in sustaining citywide canopy.

Developers and Landowners: Required to integrate trees into design and contribute to canopy growth through planning.

Utility Companies: Expected to follow NJUG 4 and best practice when working near trees.

Voluntary and Community Groups: Friends groups deliver projects and advocacy.

Residents: Manage most of the City's tree canopy in private gardens, representing the largest single opportunity for canopy growth.

TOPIC PAPER 7 CLIMATE CHANGE AND RESILIENCE

Policy alignment

This paper supports delivery of *Manage More* policies M1 (legal obligations), M2 (pests and diseases) and M4 (capacity and resourcing); *Protect More* policies P1-P4 (planning controls); *Plant More* policies PL1-PL4 (planting, establishment, innovation and diversity); and *Engage More* policies E1-E4 (engagement, partnerships and awareness).

Purpose

Trees are essential to Cambridge's response to climate change. This paper explores their role in cooling and shading, flood mitigation, and soil resilience, referencing strategies for diversifying species to withstand future climate and pest pressures. It links the urban forest directly to The Council's wider climate goals and provides the evidence base for the policies listed above.

Introduction

Climate change is the long-term shift in the planet's average temperatures and weather patterns, primarily driven by human activities, like burning fossil fuels, deforestation, intensive agriculture and the manufacturing of certain goods, since the 1800s. The primary cause is the burning of fossil fuels, which releases greenhouse gases that trap heat in the atmosphere and has resulted in rising global temperatures, warming oceans, melting ice, rising sea levels and more frequent extreme weather events.

The impact of climate change presents significant risks through ecosystem and biodiversity loss, threats to human health, food and water insecurity and poverty and displacement.

Addressing climate change requires systemic transformation including the move to renewable energy, protection and restoration of nature, introducing sustainable agriculture and investing in clean innovation. Individual choices regarding energy use, consumption and diet can contribute to emissions reduction, while governments must implement strong climate, sustainability and nature policies to actuate necessary change.

Mitigation, adaptation and risks

Trees in Cambridge play multiple climate-roles: mitigation (reducing the causes of climate change), adaptation (helping people and ecosystems cope with the effects),

and they are themselves subject to risks from climate change. Quantifying these helps plan better, and the i-Tree Eco study provides essential local data²⁶.

Mitigation benefits

Cambridge's trees store about 88,000 tonnes of carbon (valued at ~£22,500) in their biomass. They also sequester about 2,040 tonnes of carbon per year, worth ~£524,000 annually. These functions reduce greenhouse gas concentrations in the atmosphere, contributing directly to mitigation goals and supporting the Council's wider Climate Change Strategy.

Adaptation benefits

Trees remove roughly 22.2 tonnes of air pollution each year (valued at ~£990,000) by filtering pollutants, improving human health. They help manage excess rainfall: about 97,600 m³ of stormwater runoff is prevented annually, equivalent to ~£153,000 in avoided drainage costs. Overall tree and shrub cover is about 20.1% of Cambridge, providing cooling, shade, and local microclimate regulation. The following sections outline in more detail the key adaptation functions of the urban forest.

Canopy cover

Increasing urban canopy cover will significantly mitigate the urban heat island effect by providing shade and evaporative cooling. Shade is important for health because it blocks harmful UV radiation and helps prevent heatstroke. Shaded areas encourage greater use of public spaces and therefore contribute to wellbeing.

Shaded infrastructure is protected by lower material temperatures and the prevention of premature degradation from UV rays. Shade prolongs the lifespan of building components, outdoor equipment and finishes and improves energy efficiency in buildings by decreasing the need for air conditioning. Additionally, shade helps maintain the aesthetic quality and structural integrity of materials by minimising fading, warping and cracking caused by sun exposure, adding a financial benefit to increasing canopy cover.

Flood mitigation

Following UK-wide flooding in the summer of 2007, a report from Sir Michael Pitt identified that paving over front and rear gardens was a major factor in surface water movement in towns and cities. Around two thirds of all the flooding in 2007 was a result of surface water run-off.²⁷

While changes in policy and surface design, increasing areas of soft landscaping where possible and using porous hard surfaces aid soil infiltration, trees and their

²⁷ REF

²⁶ I-tree ref xxx

roots significantly help slow the flow of rainwater, which is also beneficial for reducing flood risk. The canopy intercepts rainfall, slowing the flow of water to the ground and allowing water to infiltrate the soil, therefore, reducing surface runoff. The interception of rainfall also allows a percentage of water to evaporate back into the atmosphere before it hits the ground. Root systems help water penetrate deeper into the soil at a faster rate under and around trees, which results in less surface run-off and more storage in the soil.

Soil resilience

Healthy soils with high organic matter can act as significant carbon sinks, helping to mitigate climate change. Tree roots bind the soil together, holding it in place and preventing it and nutrients from being washed away by flowing water. Fallen leaves also provide a protective layer on the ground and, as decaying matter, improve soil structure and nutrition.

Risks and vulnerabilities

The urban forest itself is vulnerable to climate change. Some tree species will struggle with prolonged drought and/or waterlogging, while others may not be able to adapt to increasingly extreme temperatures. Climate change enables some pests and pathogens to expand their range into new areas, while milder winters increase the survival rates of existing pests and diseases, accelerating reproductive cycles and allowing more generations per year. At the same time, acute weather events, such as heatwaves, storms, droughts and flooding, stress trees and make them more vulnerable to infestation and decline. Recognising and planning for these vulnerabilities is central to the Strategy's delivery approaches.

Strategies and guidance

Strategic tree selection and succession planning is required for long-term conservation and adaptation. With consideration of biodiversity and biosecurity, The Council is committed to increasing canopy cover through its own asset management, planning responsibilities and public engagement and identifying and planting future-proofed trees to replace those vulnerable to climate change, ensuring the long-term health of the urban forest. http://www.righttrees4cc.org.uk/

Equally important is the protection of established trees. Avoiding unnecessary stress from root damage, soil compaction, inappropriate pruning or poorly designed development is critical to maintaining canopy cover and resilience. These issues are addressed through the "Protect More" policies and development control processes. In addition to formal planning controls, many activities that affect trees take place outside the planning system, such as permitted development, statutory utility works or routine maintenance by contractors. Following recognised best practice guidance is strongly advised whenever works are undertaken near trees. This includes avoiding soil compaction, preventing root severance, using appropriate pruning

methods and taking professional arboricultural advice where necessary. Utilities, contractors, developers and residents all have a role in ensuring that established trees are not placed under avoidable stress. While there are technical methods to calculate Root Protection Areas (RPAs)²⁸ - such as those set out in BS 5837:2012²⁹ - a simple rule of thumb can be applied: avoid excavating, storing materials or running heavy vehicles under the canopy of a tree, plus 1 metre, or a radius equal to half the tree's height for tall, narrow trees - whichever is greater. Where works are unavoidable, professional arboricultural advice should always be sought to mitigate negative impacts.



²⁸ The minimum area around a tree that must be protected from disturbance if the tree is to be retained successfully, normally calculated as a radius based on the tree's stem diameter, in accordance with British Standard BS 5837:2012 "Trees in relation to design, demolition and construction - Recommendations".

²⁹ ref

TOPIC PAPER: 8 ACHIEVEMENTS

Background

Cambridge has a strong record of urban forest management and innovation. Over the past decade under the Citywide Tree Strategy 2016-2026, the Council has delivered major planting programmes, pioneered new approaches to tree asset management, and embedded trees within its climate and biodiversity strategies. These achievements provide a solid foundation for the Urban Forest Strategy 2026–2036.

The Tree Team

The Council's Tree Team, based within City Services, has been central to the delivery of Cambridge's urban forestry achievements. The team manages over 30,000 trees on council land, leading on inspections, maintenance, planting, and statutory tree protection. It also provides arboricultural advice across the organisation, including to planning, and housing services.

Team composition and evolution

- Until 2024, the team comprised:
 - Senior Arboricultural Officer (manager)
 - Arboricultural Planning Lead (statutory and planning casework)
 - 2x Arboricultural Officers (enquiries, operational inspections and maintenance)
 - Supported by project roles such as the Cambridge Canopy Project Officer (2019-2023) and the Biodiversity Project Officer (2023 - to date).
- In the 2024/25 restructure, the manager's role was retitled Urban Forest
 Manager, formally recognising the Council's adoption of an urban forestry
 approach. The Arboricultural Planning Lead post was deleted, with statutory
 planning functions transferred to the Greater Cambridge Shared Planning
 Service (GCSP) as of 1 May 2025.

The Tree Team remains The Council's centre of expertise on trees, shaping policy, delivering day-to-day management, and securing external investment while working in partnership with contractors, communities, and other services.

Two posts have been particularly important in driving forward its urban forestry engagement functions:

- The Cambridge Canopy Project Officer (2019-2023), created through EU funding, which delivered community engagement, planting events, and communications.
- The Biodiversity Project Officer (2023 to date), funded as a legacy role, delivering 50% biodiversity projects and 50% urban forest engagement projects to continue and expand on the Canopy Project's work.

Achievements to Date

Strategic and Policy Framework

Adoption of the 2016 Tree Strategy, establishing the holistic urban forestry approach.

Integration of tree policy into the Council's Climate Change Strategy and Biodiversity Strategy, aligning arboriculture with wider environmental priorities.

2024-25 restructure: the Council formally recognised the discipline of Urban Forestry by changing the manager's title from Senior Arboricultural Officer to Urban Forest Manager.

Recognition of Cambridge's leadership in urban forestry:

- Cambridge City Council's Excellence in Environmental Responsibility Award (2022)
- Cambridge City Council's Net Zero Award (2024)
- Nomination for APSE's Best Climate Action or Decarbonisation Initiative (2025) for pioneering use of i-Tree Eco to quantify the climate and ecosystem value of the urban forest.

Alignment with Wider Council Strategies and Priorities

Cambridge's urban forestry achievements also contribute directly to wider Council strategies and corporate objectives:

Cambridge Local Plan 2018

- **Strategic Objective 6**: commits to protecting and enhancing the city's landscape setting, including the Green Belt, green corridors, multifunctional green spaces, and tree canopy cover.
- Policy 71 (Trees): requires development to preserve, protect and enhance existing trees, ensure replacement planting, provide space for trees to mature, and safeguard veteran and ancient trees.

Achievements such as expanded TPO coverage and measurable canopy growth since 2008 directly deliver on these requirements.

Air Quality Action Plan 2018–2023 and Greater Cambridge Air Quality Strategy 2024

 Identify tree planting and green infrastructure as tools to offset emissions and reduce exposure to air pollution.

Cambridge's planting programmes and canopy expansion, combined with i-Tree Eco findings (~22 tonnes pollutants removed annually, worth ~£990,000), provide measurable contributions to these objectives.

Biodiversity Strategy 2020–2030

 Highlights the role of urban trees as habitats, corridors, and contributors to biodiversity.

Achievements such as the DiversiTree project³⁰, reinstated willow pollards, orchards. stumperies, pollinator habitats, and biosecurity measures directly support Strategy objectives.

Climate Change Strategy

 Trees are recognised as key infrastructure for delivering net zero and adapting to a changing climate.

Achievements in planting, canopy expansion, and monitoring ecosystem services (carbon storage, cooling, stormwater) demonstrate this contribution.

Corporate Priorities (2022–2027)

Achievements contribute to all four Council priorities:

- 1. Responding to the climate and biodiversity emergencies via tree canopy growth, carbon capture, biodiversity projects.
- 2. Tackling poverty and inequality via equitable canopy gains in deprived wards, community engagement, free tree schemes.
- 3. Building new council and affordable homes via integrating green infrastructure and tree planting into new developments.
- 4. Modernising the council via embedding evidence-led, cross-service working and innovation in public service delivery.

Target Operating Model (TOM)

Achievements also align with TOM principles by:

³⁰ DiversiTree project - Cambridge City Council last accessed 3/9/25

- Enabling cross-service working (e.g. planning advice, housing advice, biodiversity alignment, communications).
- Establishing baseline measurements through canopy data and i-Tree Eco valuations.
- Embedding fairness by addressing tree equity across wards.
- Ensuring sustainability and resilience through canopy expansion and longterm strategic frameworks.
- Enhancing customer focus with clearer web resources, accessible data, and support for residents in engaging with trees.

Cambridge Canopy Project (2019-2023)31

- Delivered: 2,384 standard trees, 250 half-standards, and 600 whips.
- 953 "Free Trees for Babies" distributed.
- 193 trees planted through the Neighbourhood Canopy Campaign³².
- Delivered Cambridge's first Tiny Forest in Chesterton (600 whips).

Planting and Canopy Expansion

- Since 2016, over 5,000 new trees have been planted across streets, parks, estates, and open spaces.
- Landmark planting events included: 33 trees on Parker's Piece, species diversity themed planting in all 14 wards, ceremonial maples on Jesus Green, and COP26-themed plantings in neighbourhoods.

³¹ An EU funded project under the parent umbrella climate resilience programme Nature Smart Cities across the 2 Seas Nature Smart Cities across the 2 Seas programme - Cambridge City Council (last accessed 3/9/25)

³² Neighbourhood Canopy Campaign - Cambridge City Council (last accessed 3/9/25)

Tree Planting and Felling Trends

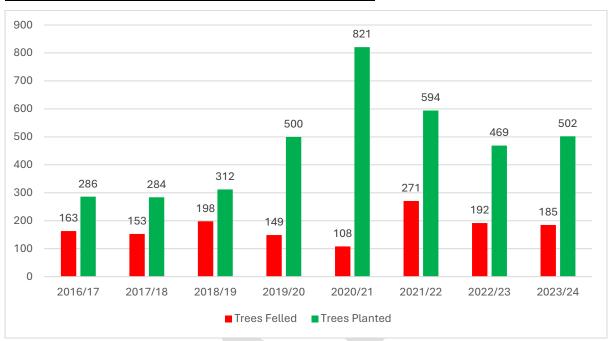


Figure 1 Chart showing the number of Council trees recorded as felled and standards planted

1,419 trees were recorded as felled with 3,768 standard³³ sized trees planted. A net gain of 2,349 trees between 2016 and 2024, showing planting consistently outpaced felling.

Tree Asset Management

- Maintained an EzyTreev® inventory 30,000+ trees for management.
- Introduced systematic and proactive three-year inspection cycles to parks trees in 2016 to align with streets and communal housing lands.
- Officers inspected over 27,000 during one 3 year cycle (cycle 9: 1/4/21-31/3/24) and contractors visited around 20,000 in the same period.
- Delivered successive Arboricultural Frameworks:
 - 2017-2021 Framework
 - 2021-2025 Framework: Introduced a new Planting and Establishment Specification to standardise our tree planting and aftercare works.
 - 2025-2029 Framework (securing capacity through the decade).

³³ A standard tree is defined as a tree with a single upright trunk that is clear of lower branches for a certain height, typically at least 1.8 meters

Protection

- Pre-2016: TPOs increased from 310 (1995) to ~430 (2016).
- 2016-2024: TPOs rose to 742 (73% growth since 2016).
- Tree Work Applications (TWAs): 186 in 1995 to 657 in 2023.
- 2009-2022: 388 new TPOs served, alongside multiple conservation area extensions.
- 2024-25 restructure: Arboricultural Planning Lead post deleted; statutory tree functions now delivered by Greater Cambridge Shared Planning Service (GCSP), with Tree Team retaining strategic interest.

Biodiversity and Veteran Trees

- 2018 Veteran willow survey and management plan commissioned to inform the sustainable management these valuable trees.³⁴
- 2021 Reinstated pollarding of riverside willows, supporting habitat and heritage landscapes, funded by the Green Recovery Fund
- DiversiTree project (2023-2026), funded by the National Lottery, celebrating and managing veteran and heritage trees.
- Expanded pollinator habitats, orchards, bee banks, and stumperies.

Engagement, Communications and Web Resources

Cambridge Canopy Project (2019-2023)

 Established a strong urban forestry brand, through projects and planting events.

Biodiversity Project Officer (started 2023)

• Delivered resilient species planting, mulch initiatives, watering support, pollinator and cultural projects, and citizen science programmes.

³⁴ <u>Veteran tree management on Sheep's Green and Coe Fen - Cambridge City Council</u> (last accessed 3/9/25)

 Founded the Cambridge Nature Festival, produced interpretation boards, and engaged in multiple city festivals.

Tree for Streets

2019 Cambridge City Council became the first Council to sign up to the national charity Trees for Streets³⁵ to engage communities to help manage tree sponsorships.

Free Trees for Babies

The Free Trees for Babies scheme is a long-running legacy initiative, offering a free tree to commemorate the birth of a child and securing planting in residents' gardens. Between 2016/17 and 2023/24, a total of 1,843 trees were distributed, ensuring that every new child could be celebrated with a lasting contribution to Cambridge's canopy.

Digital Accessibility

2017 - Created dedicated and accessible tree webpages³⁶, covering protected trees, works consultation, tree data, and tree projects.

External funding and Investment (2019–2025)

Cambridge secured over £1.28 million in external funding.

- LATF (Local Authority Treescapes Fund) £237,499
- UTCF (Urban Tree Challenge Fund) £230,061
- Green Recovery Fund ~£14,500
- National Lottery (DiversiTree) £84,180
- CLHF (Nuns Way Microwood) £13,875 (1,000+ whips planted)
- NSCiti2S (EU Interreg) ~£635,000 (Cambridge Canopy Project)
- Trees for Streets ~£68,400+

2008-2018 Canopy Change Study 37

- Citywide canopy rose from 17.1% to 17.6% (+20 ha).
- 11 of 14 wards saw increases; Castle and Newnham declined.

-

³⁵³⁵ Sponsoring new trees - Cambridge City Council

³⁶ Trees - Cambridge City Council

³⁷ https://www.cambridge.gov.uk/media/4uvksm30/tree-canopy-cover-in-cambridge-between-2008-and-2018.pdf

- Deprived wards (Abbey, King's Hedges, East Chesterton) recorded the strongest gains, narrowing equity gaps.
- Gardens and protected open spaces contributed disproportionately to canopy.
- Provided Cambridge with its first robust citywide canopy changes baseline.

Canopy Cover and Ecosystem Services 38

- 2021 i-Tree Eco estimated canopy at 20.1% (including shrubs).
- Annual benefits (i-Tree Eco):
 - 2,040 t carbon captured (£524k)
 - 88,000 t carbon stored (£22.5k)
 - 22.2 t pollutants removed (£990k)
 - o 97,600 m³ stormwater avoided (£153k)
- Asset valuation: ~£1.03 billion amenity value; ~£172m replacement cost.

Evidence and Data Innovation

- Live EzyTreev® inventory of 30,000+ trees.
- Proximitree datasets (2008 2018), enabling ward-level analysis.
- i-Tree Eco studies (2021) valuing carbon, pollution, and stormwater services.
- Ward-level canopy and land-use overlays for equity-based planting.
- DiversiTree veteran willow database along a 10km stretch of the River Cam.

Ash Dieback Monitoring (2017-2024)

- Annual monitoring survey (99 trees), started 2017.
- Recorded increasing defoliation and deadwood; two trees removed as dead.
- 2024 inventory recorded ~1,500 ash trees under management.

Conclusion

From 2016 to 2026, Cambridge has:

³⁸ i-Tree Eco project - Cambridge City Council

- Delivered net canopy gains with planting far exceeding felling.
- Expanded protections, with TPO growth accelerating after 2016.
- Modernised management with successive frameworks and EzyTreev®.
- Protected biodiversity and veterans.
- Engaged communities through high-profile programmes and digital resources.
- Secured £1.28m+ external funding, including the planting of 1,000+ whips at Nuns Way Microwood.
- Monitored long-term threats such as ash dieback.
- Built a robust evidence base showing measurable progress.
- Aligned achievements with the Local Plan, AQAP, Biodiversity Strategy, Climate Change Strategy, Corporate Priorities, and TOM.

TOPIC PAPER 9 - STATUTORY RESPONSIBILITIES AND PLANNING CONTROL

Trees in Cambridge benefit from a robust framework of legal protections. This paper explains The Council's statutory responsibilities in relation to Tree Preservation Orders, Conservation Areas and Tree Work Applications. It also sets out how The Council and partner services respond to planning applications, tree work applications and enforce compliance to safeguard Cambridge' most valuable trees.



TOPIC PAPER 10. CAMBRIDGE'S URBAN FOREST - BASELINE AND CHANGE

Purpose

Understanding Cambridge's urban forest today is essential to planning for its future. This paper sets out the current evidence on canopy cover, species composition, age structure, and spatial distribution across the city. It also reviews recent trends and changes, providing the baseline against which future progress will be measured.

Introduction

Cambridge's urban forest, the trees and shrubs that grow across public and private land, is a vital part of the city's character and environmental resilience. It provides shade, improves air quality, stores carbon, mitigates flood risk, and enhances biodiversity.

To manage this resource effectively, a clear evidence base is needed. Over the past 15 years, a series of studies have been undertaken, including the ADAS Tree Audit (2013), the Dr T Jackson's 2008-2018 canopy cover analysis and the i-Tree Eco® survey (2020-21). Together with the Council's own analysis of its tree maintenance database (Ezytreev®), these provide a comprehensive baseline of structure, composition, and change.

Canopy Cover

2008: 17.1% baseline [ADAS].

2018: 17.6% (slight increase, equivalent to ~20 hectares) [Dr T Jackson].

2019 [i-Tree Eco® sample]: 20.1% (trees and shrubs combined).

Ward-level data shows the highest canopy in Newnham (21.2%) and West Chesterton (21.1%), and lowest in Cherry Hinton (13.1%) and Abbey (14.3%) [Dr T Jackson].

Species Composition

ADAS 2013: Fraxinus (Ash) over 20% of population; Rosaceae (Prunus) 28%.

Ash dieback threatens up to 95% mortality [REF]

i-Tree Eco® (2020–21): 105 species, 49 genera. Most common: *Crataegus* (thorn) (12.5%), *Prunus* (cherry, apple, *sorbus*) (11.1%), *Acer* (maple)(10.6%); most common species: hawthorn (11%)

Council-managed stock differs: *Prunus* (14%), *Acer* (12%), *Tilia*, *Betula*, *Sorbus* (8% each).

Age and Size Structure

ADAS 2013: 75% of trees 2.5-10m tall; <2% over 20m.

2018 study: gains from medium trees maturing; losses in Castle due to development.

i-Tree Eco®: 49.5% of trees 15-45 cm DBH; only 4.2% over 75 cm

Spatial Distribution [Dr T Jackson]

Higher canopy in the west (Newnham, Castle, West Chesterton).

Lower canopy in the east (Abbey, Cherry Hinton, Coleridge).

Canopy ownership: 74.1% private/other, 16.3% Council, 9.6% highways

Ecosystem Services (i-Tree Eco® 2020–21)

Carbon storage: 88,000 tonnes (£22.5m).

Carbon sequestration (annual): 2,040 tonnes (£524k).

Air pollution removal: 22.2 tonnes annually (£990k).

Avoided runoff: 97,600 m³ annually (£153k).

Amenity value (CAVAT): £1.03 billion.

Replacement cost: £172 million.

Distribution of Canopy by Land Use

Residential and Gardens [Dr T Jackson]

Gardens contribute disproportionately high canopy cover relative to their area.

Between 2008-2018, even as garden space shrank due to densification, canopy in gardens increased in many wards (notably Romsey).

This shows private gardens are a key part of the urban forest, especially in wards with low Council land.

Institutional / College Land

ADAS (2013) found the largest trees and highest canopy density concentrated on college and institutional land (often in western Cambridge).

i-Tree Eco® confirms that Newnham and Castle, which have substantial college land, still hold the highest canopy cover (~21%).

Council-Managed Land (Parks, Housing, Highways) [Dr T Jackson]

Council land makes up only 13.5% of land area but supports 16.3% of canopy cover.

Parks and protected open spaces contain a significant share of large trees, particularly in lower canopy wards, helping balance inequity.

Highways support 9.6% of canopy which are crucial for shade and amenity but limited in number compared to private gardens.

Industrial and Commercial Land

ADAS (2013) highlighted that industrial areas had low tree numbers and canopy, identifying them as priority planting opportunities.

More recent studies continue to show lower canopy in eastern industrial wards (e.g. Abbey, Cherry Hinton). [Dr T Jackson]

Agricultural / Urban Fringe

The i-Tree Eco® report recorded 16.3% of the city's land as agricultural, but these areas tend to have low canopy density compared to residential or institutional land

Hedgerows and shelterbelts contribute, but they are not equivalent to dense canopy. [i-Tree Eco®]

Large areas of remnant agricultural land have been urbanised.

Trends and Change

Net increase in canopy since 2008 (17.1% 17.6%).

Ward-level variations - Romsey gained; Castle and Newnham lost.

Equity - canopy increased in deprived areas, reducing disparities.

Risks - Ash dieback (22% of population)[ADAS 2013]; climate pressures (UK's hottest temperature recorded in Cambridge, 2019) [REF]

<u>Implications</u>

Canopy remains below the 20% target, with uneven distribution.

Private land dominates, making engagement essential.

Species diversity is relatively high, but over reliance on Rosaceae and ash is a risk.

Few large trees - need to protect and establish future cohorts.

Ecosystem service valuation underlines the economic and social case for investment.

Council and protected open space play a disproportionately important role in lowercanopy wards, helping offset the loss of large gardens and equity issues.

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i-Tree Eco https://www.cambridge.gov.uk/media/to0h50xn/i-tree-eco-project-report.pdf



TOPIC PAPER 11 - TREE PROTECTION, DAMAGE AND COMPENSATION

The urban forest is a public asset and protecting it from harm is a core responsibility of The Council and its partner services. This paper sets out how damage to trees is addressed, including unauthorised works, vandalism and harm caused by third parties. It explains the legal framework for enforcement and prosecution, the use of valuation tools such as CAVAT to establish compensation and how The Council seeks to deter damage while recovering costs where appropriate.



TOPIC PAPER 12 GROWING CAMBRIDGE'S TREE CANOPY

Summary

- Why canopy, not tree counts? What matters is the leafy cover over our streets and spaces. A few big trees can cool and shelter an area more than many small ones.
- Where we are: Cambridge's latest mapping point is 17.6% canopy (2018). From 2008 to 2018 we gained 0.5 percentage points³⁹ (pp) about 20 hectares of extra canopy.
- Our target: 20% by 2050 means adding ~+2.4 pp roughly 98 hectares of new canopy in total (around 140 football pitches⁴⁰), or about 4 hectares per year.

What is canopy cover and why use it?

Canopy cover is the share of land that sits under the spread of tree crowns. It tells us where shade, cooling, rain capture and habitat are happening. Counting trees alone can mislead: one large tree can do the work of many saplings.

Rule of thumb for Cambridge: City area \sim 4,070 ha - 1 percentage point (pp) of canopy \sim 40.7 ha.

Where we are now

- 2018: 17.6% canopy (latest consistent mapping point).
- Change since 2008: +0.5 pp over ~10 years ~ 20 ha total (about 29 football pitches).

This tells us we can grow canopy, but to meet future goals we need to do a little more, a little faster.

³⁹ Percentage points (pp) show the absolute change between two percentages. For example 10% - 12% = +2 pp), while percent (%) shows the relative change (the same change is a +20% increase).

⁴⁰ A standard football pitch is about 0.7 ha

How we measure canopy

- ProximiTree™: aerial canopy mapping (our headline series) uses high-resolution aerial imagery to map tree cover across the whole city. It gives % canopy by ward and land-use. Latest consistent point, 2018 = 17.6%. We use this to track the target so each update compares like-with-like.
- i-Tree Eco (2021 field survey): On the ground sample plots used to estimate the benefits trees provide (cooling, carbon, pollution removal). It produced a higher canopy percentage (~20.1%) because it uses a different, sample-based method. We cite Eco for benefits and not to reset the headline trend.
- ADAS (2013 analysis and scenarios): Earlier modelling that used the 2008 baseline to explore how much planting might lift canopy by about 2% (~ 80 ha) over time. It assumed typical planting losses (around a quarter over the long term) and tested where planting would work best (by ward and land-use). Useful for scale of effort, but today we put more weight on protecting big trees and growing existing crowns, not just tree counts.

In short, we track progress with one consistent mapping series; use i-Tree to explain benefits; use ADAS style numbers only as illustrative context or supporting evidence.

What the 20% by 2050 target means

From 17.6% - 20% is +2.4 pp. That equals ~97.7 ha of extra canopy citywide. Spread over 25 years, that's ~3.9 ha each year or about 5-6 football pitches of new canopy every year.

Why not 25% by 2050 or 20% by 2030?

- 25% by 2050 would need about 12 ha per year (roughly 18 pitches/year) a very big step up, and unlikely without major land use changes and large-scale private action.
- 20% by 2030 would need about 19-20 ha per year (around 28 pitches/year) far beyond what tree growth and delivery capacity can realistically achieve in
 time.

So, 20% by 2050 is challenging but **achievable**, if we focus on the most effective actions.

The most effective actions

- 1. **Protect big trees**: Avoid losing mature trees. One removal can wipe out hundreds of m² of canopy that would take decades to replace.
- 2. **Help existing trees grow**: Good plant health care and prune with canopy in mind. Small growth on a big crown adds a lot of extra shade.

- 3. **Mobilise private land**: Around three quarters of the city's canopy is not on Council land. Support homeowners, colleges, schools and businesses to keep trees, let them mature, and plant where space allows.
- 4. **Plant for canopy, not just numbers**: Fewer, better designed sites beat many poor ones. Where we plant provide enough soil, choose species that can form a large crown, and fund aftercare.
- 5. **Allow natural regeneration**: In nature reserves, woodlands, isolated areas in our parks, open spaces and river margins, protect promising self-sets so they grow into future trees at low cost.

Planting vs. keeping what we've got

- Keeping a big tree: keeps a large, working 'umbrella' over people and places right now.
- **Planting a new tree:** is essential for the future, but it can take 20-40 years before it provides similar shade. That's why we do both, keep the canopy we have, and plant smartly for tomorrow.
 - For example a mature street or park tree with a crown radius ~8 m, has a crown diameter ~16 m and a height of around 15-22 m and a trunk diameter of ~60-80 cm, shades about 200 m².
 - Compared with a young established tree with a crown radius ~1-2 m, with a crown diameter 2-4 m, height of ~4-6 m and trunk diameter ~10-20 cm, shades ~3-12 m². Ten such trees together provide ~30-120 m² and only after several growing seasons.

Numbers vary by species and pruning, but the relative difference holds: one large crown usually outperforms many small ones for decades.

Protecting the big one usually gives more benefit, more quickly.

How we will track progress

We will use a consistent mapping method over time, so progress is comparable. Other surveys (like i-Tree Eco) help describe benefits, but the headline trend will stick to one method (ProximiTree™) for clarity.

We check canopy change every 10 years. This rhythm is practical and affordable for us to deliver, and it smooths out small year to year differences. Longer cycles years can slow course correction and would fall outside of the strategies lifetime.

10 years is clear enough to guide decisions and deliverable with our resources.

What residents and partners can do

Keep the trees you have where safe to do so; ask for advice before removing.

- Plant a tree, give it space and care (especially the first three summers).
- Reduce hard surfacing around trees; use mulch where you can.



