LONDON BOROUGH OF MERTON

TREE STRATEGY 2023–2029

Part 1: Management of council-owned trees

In memory of Dave Lofthouse

We dedicate this publication to the memory of Dave Lofthouse, Merton Council's Aboricultural Manager, who spent 33 years serving our community with his tireless passion and dedication to improving the borough's green spaces and local environment.

Dave qualified from Merrist Wood College in 1989 and later that year was appointed Merton's first ever Arboricultural Officer. He had been in the arboricultural profession since 1974, working as a tree surgeon for many years in Bristol, London and the USA before returning to London.

Early planting schemes involved small copse plantings in parks and school grounds, in what would become his trademark style. Over the years, he took on ambitious and large-scale planting projects such as the Sir Joseph Hood Millennium Wood and The Queen's Golden Jubilee planting in Morden Park in 2002.

Dave was instrumental in establishing the Merton Tree Wardens, one of the first in the country to be formed under the auspices of the Tree Council. His consistent support meant the group thrived with an active core membership of volunteers involved primarily in expanding the borough's tree canopy cover.

Dave also supported representatives of friends of parks groups, residents' associations and community organisations to help preserve and expand green spaces. He also gave guided tree walks in the borough's parks to help the public gain a better understanding of the importance of trees and woodlands.

His contribution to the urban environment extended well beyond Merton through his work with the London Tree Officers Association (LTOA), where he held roles as Chair, Vice Chair, and member of the executive committee. He formed and ran working groups and seminars and contributed to LTOA publications that now form nationally and internationally recognised industry guidance and best practice.

Dave was at the forefront of the borough's efforts to mitigate the effects of climate change. He increased tree canopy cover and enriched biodiversity by planting Merton's green spaces and streets with a wide variety of trees, including many unusual species rarely to be found on the streets of London.

His unwavering commitment to public service, coupled with his knowledge, love and enthusiasm for nature has greatly enhanced Merton's green spaces and increased resilience to climate change, leaving a legacy for the borough that will be appreciated for generations to come.

In recognition of his services to Merton, a memorial woodland of 6,000 trees has been planted on Cranmer Green near The Canons House in Mitcham, where he made his home among the treetops for thirty years.

Dave is fondly remembered and greatly missed by colleagues, friends and family.

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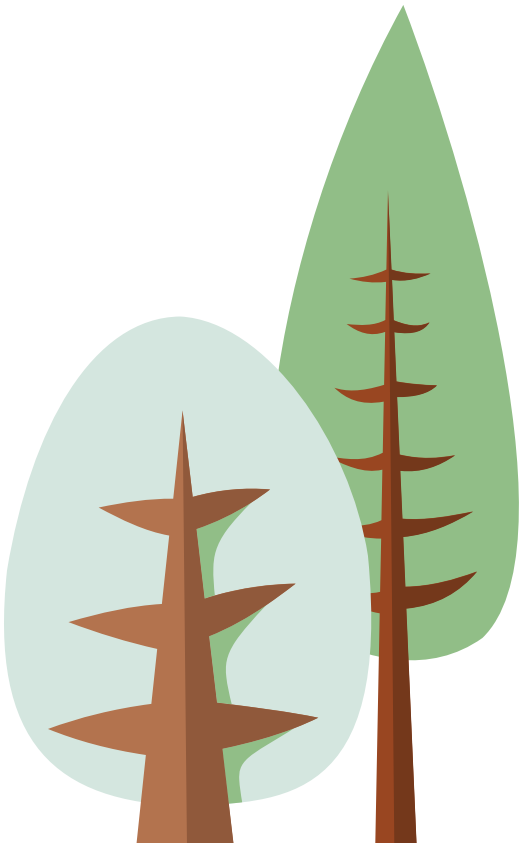

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1. Foreword

Welcome to Part 1 of Merton Council's tree strategy

This document is formally adopted by the council and is a clear commitment to how we shall manage our trees.

The heatwave in 2022 saw temperatures in Merton rise to 40°C and there were serious implications for the health of many people in the borough. With similar weather events predicted for the years ahead, we live in unprecedented times where the cooling effects of tree canopies are an essential part of life. Quite simply, looking after our trees properly has never been more important than now.

We hold responsibility for many thousands of trees. These are the familiar trees which line our streets, beautify our parks, and complement our school grounds. Their benefits extend far beyond simply 'looking nice'. They promote economic value and development, help to mitigate the effects of climate change and generally have a positive impact on our wellbeing.

However, some of our trees have the potential to cause damage or harm. This can range from relatively small inconveniences, through to very serious matters such as structural damage to buildings or physical harm to people if a tree breaks or falls in a busy place. That's why we have legal duties and responsibilities to manage our trees.

Part 1 of our tree strategy is a working document. It takes the benefits and challenges of trees into account. It sets out the mechanisms for us to take a consistent approach and it builds on the dedicated work already carried out by our team of arboricultural experts.

It is a clear statement of our commitment to the betterment of Merton's trees for the benefit of our community now and in the future.

Councillor Natasha Irons, Cabinet Member for Local Environment,
Green Spaces and Climate Change

2. Our vision and approach

2.1 Vision

For the benefit of our environment and that of future generations we shall strive to achieve an optimised, sustainable council-owned tree population. This will be a positive contribution towards the London Environment Strategy's existing target of a 10% increase in canopy cover for the city overall.

We are going to:

- Look after our existing trees and hedges well and in a structured and consistent way. This will mean that their benefits are maximised whilst tree-related problems and inconveniences are kept to a minimum.
- Protect all our trees and hedges to ensure their resilience in the face of many challenges and threats.
- Plant, establish and cultivate to maturity as many trees and hedges as we can on our land; promoting the need for trees of large mature size to enhance our green infrastructure.

Doing this will result in a multitude of quality-of-life improvements for present and future generations. It will also enable us to comply with our legal responsibilities and ensure that as a council we are not at unreasonable risk of litigation.

Our trees contribute greatly to the character of Merton and its natural environment. They provide a wealth of benefits which are fundamental to our capacity to adapt to the climate change emergency by counteracting increasingly high summer temperatures, sequestering carbon from the atmosphere and intercepting rainfall to lower the likelihood of flash flooding.

Beyond this we recognise the principle of '*Biophillia*'. This is the innate and intrinsic human need to have proximity to and contact with the natural environment. The hugely positive impact that trees and their many wildlife associations provide to our wellbeing is very widely documented and accepted.

Trees are vitally important. We need as many healthy, well-managed trees as we can to make Merton a better place to live.

2.2 Approach

Our tree strategy shall be in two parts:

- **Part 1** (this document) specifically deals with issues relating to council-owned trees. It sets out a mechanism for how we shall look after our existing trees and hedges as best we can so that we achieve our vision.
- **Part 2** shall deal with more wide-reaching issues relating to Merton's Treescape or 'Urban Forest' – in other words, all the trees in Merton, whether publicly or privately owned – and shall aim to optimise tree benefits throughout the borough.

3. Why do we need a tree strategy?

3.1 Different approaches – the benefits of a strategic approach

Trees have far-reaching environmental, historic and social and economic value. Their worth extends far beyond simply 'looking nice' and improving the 'visual amenities' of place. A more detailed list describing the wide range of benefits that trees provide is at **Appendix 1**.

Various systems are available to value trees and tree benefits in financial terms. Their 'replacement' value can be quantified as can the combined effects of their many associated benefits; so-called 'eco-system services'. However, we also recognise that trees also deliver value indirectly and in less measurable ways. Most significantly, they give a connection to nature that transcends the confines of urban life and hugely improves people's sense of well-being and their mental and physical health.

Despite these many benefits, there are circumstances where trees do have adverse effects on people and property. These so-called 'tree problems' vary in severity. On the one hand, trees can be associated with subjective inconveniences such as the 'mess' of seasonal leaf loss, aphid honeydew, bird droppings and so on. On the other, trees can be implicated in issues of major importance such as direct/indirect structural damage to buildings and infrastructure or – in rare cases – injury/death if defective trees or branches fail. Also, there are a range of wildlife habitats such as meadows, heathland and wetlands that can become degraded if trees are allowed to establish.

Bringing out the best out of an urban tree population in a consistent way is a complex, multi-faceted challenge. It requires the expert involvement of skilled arboricultural and urban forestry professionals working in collaboration with relevant stakeholders, in particular community organisations.

Traditionally, many urban tree populations have been managed reactively and comparatively informally by dealing with issues as they arise. This approach can result in inefficiencies, a lack of joined-up thinking and 'fire-fighting'. A lack of consistent decision-making also means that trees and their benefits remain a relative unknown and that consequently their management is inadequately resourced.

In contrast, a tree strategy sets out a plan. It gives a mechanism for consistent tree management that:

- Optimises the condition of the overall tree population.
- Enables systematic understanding of the range of threats to trees.
- Leads to more effective tree protection.
- Maximises opportunities for viable tree planting.
- Maximises trees' contribution to climate change adaptation.
- Reduces litigation costs.
- Enables accurate forecasting of costs and setting of realistic budgetary requirements.
- Reduces emergency callout costs.
- Ensures benchmarked standards of service.
- Improves communication mechanisms and relationships with stakeholders and community groups.
- Increases 'sense of ownership' of trees by the community.

3.2 Policy Context

Our requirement for a tree strategy is underpinned by policy at National, Regional and Local level. A basic summary is at **Appendix 2**.

4. What do we have?

4.1 Tree canopy cover in Merton

We know from a recent study that Merton's total tree canopy (including trees on private land) covers an area of 1,040 hectares[1]. This is equivalent to approximately 28% of the borough. The major concentrations of canopy cover are in Wimbledon and Mitcham Commons and Morden Park.

From the study we also know that of the total tree canopy:

- 26% consists of woodlands contained within parks and public open spaces (266.12ha).
- 1.5% consists of individual woodlands (15.2ha).
- 11.2% consists of street trees (116.7ha).
- 61.3% is in private gardens, cemeteries and institutional grounds.

Figure 1 shows that there is substantial variation in concentration areas of tree canopy cover throughout the borough. Further analysis of tree canopy cover on a ward-by-ward basis[3] (pre-electoral commission changes to Merton ward boundaries 2020) at **Figures 2 and 3** illustrates this imbalance further:

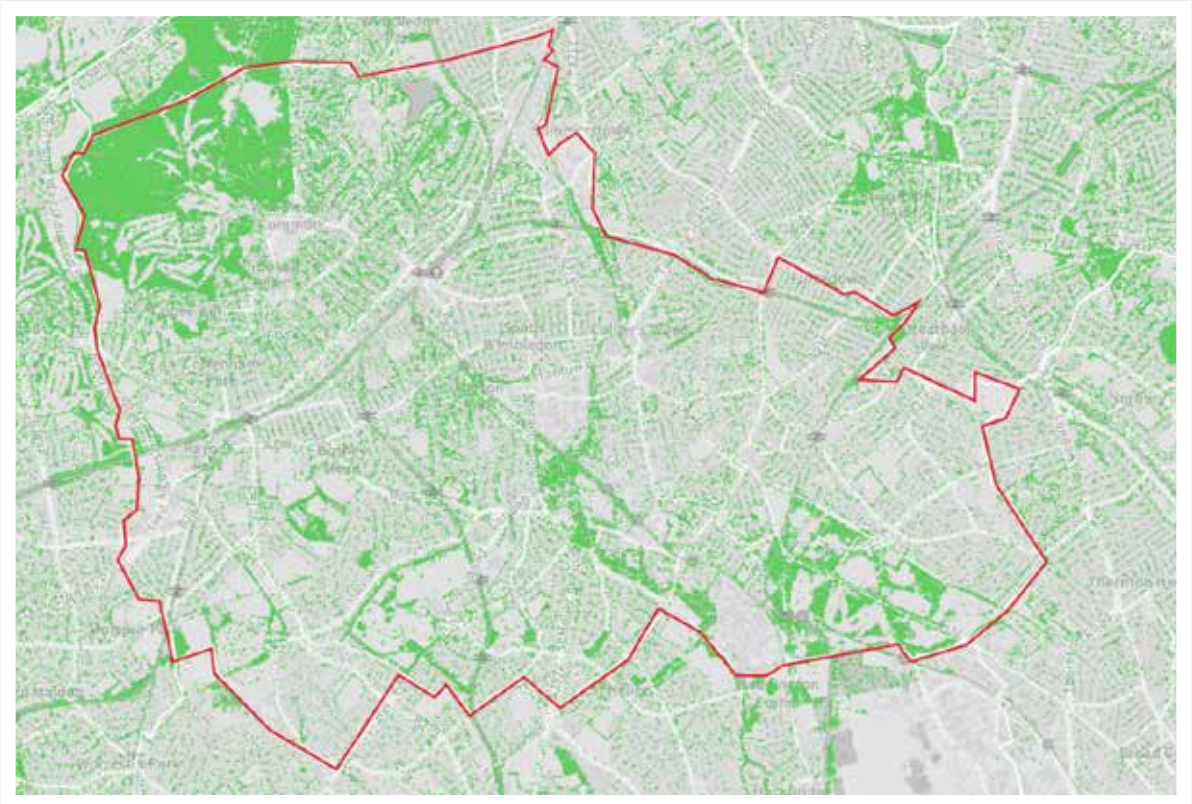


Figure 1 – Tree canopy cover in Merton (Source: London City Hall)[2]

1 Merton Green and Blue Infrastructure – August 2020
2 Tree canopy cover map | London City Hall
3 GB Ward Canopy Cover WebMap (arcgis.com)

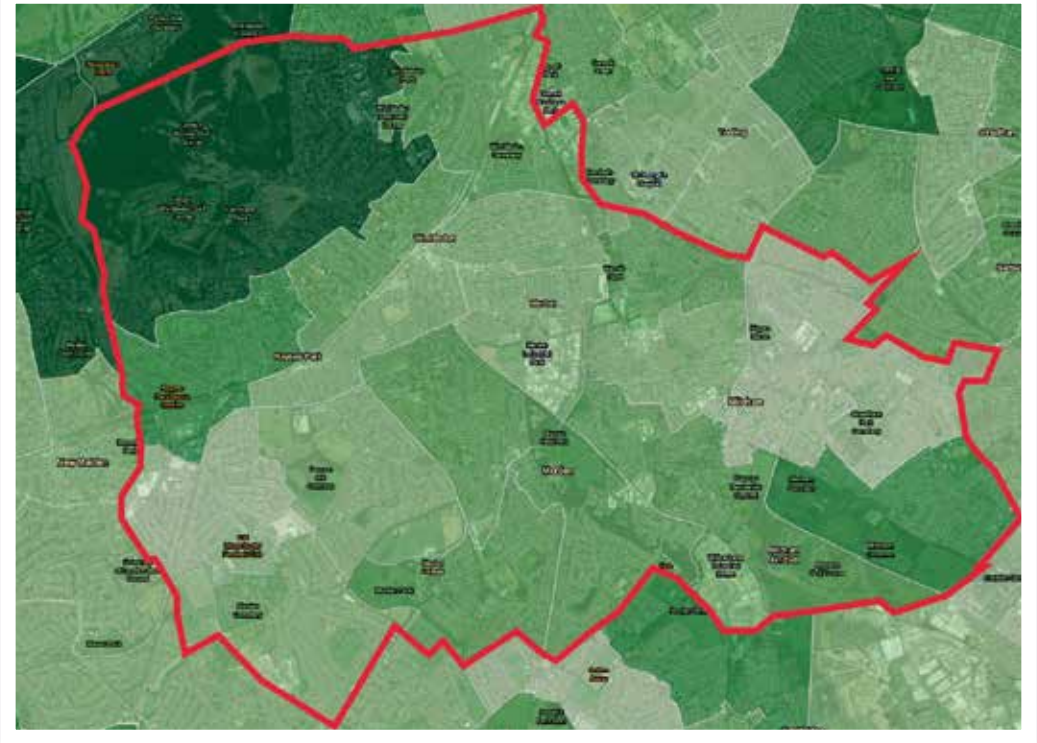


Figure 2 – Tree canopy cover distribution in Merton by Ward (pre-2022 Merton Ward boundary changes 2022). Darker green indicates more tree cover (Source UK Ward Canopy Cover Map. Forest Research)

Although overall canopy cover for the borough stands at 28%, this statistic is unrepresentative because it relies on a higher proportion of trees being situated in the west of the borough on Wimbledon Common, in the Wandle Valley and in the east of the borough on Mitcham Common.

Figure 3 illustrates canopy cover on a ward-by-ward basis (pre-electoral commission changes to Merton ward boundaries 2022). In this context, nearly all the wards in Merton have tree canopy cover well below London's overall average of 21%.

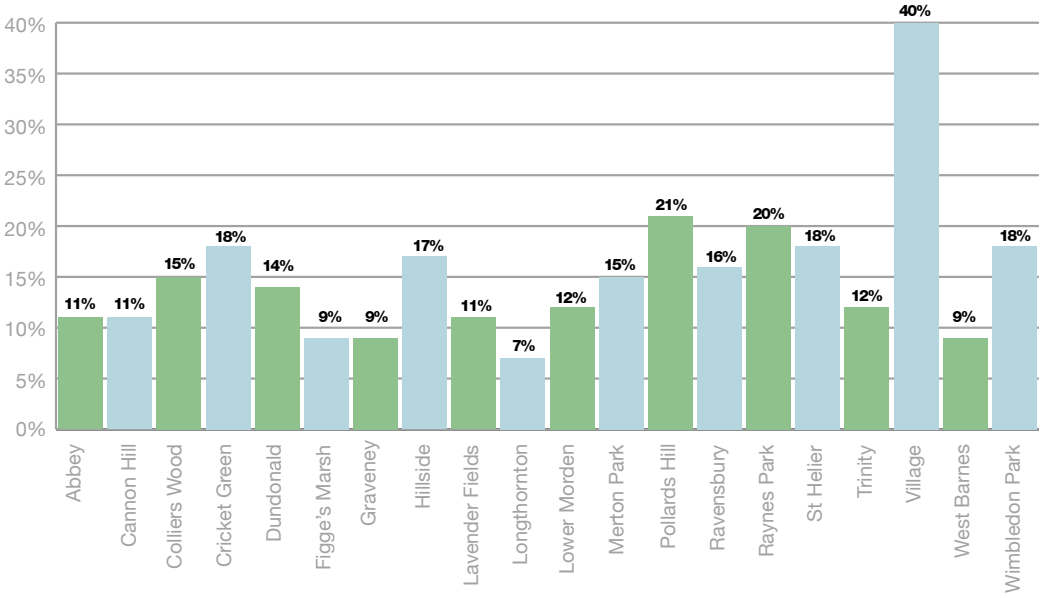


Figure 3 – Percentage tree canopy cover in Merton by ward (pre-2022 Merton Ward boundary changes 2022). (Source: UK Ward Canopy Cover Map. Forest Research)

Figure 4 compares ward tree canopy cover with population densities[4] for equivalent. Wards of higher contrast show that the areas where the most people live are also the areas with lower tree canopy cover. The imbalance demonstrates key geographical areas in greatest need of pro-active tree canopy management – where and if this can be viably achieved. It also follows that the existing trees – not least council-owned trees – in more highly populated areas are of proportionately higher value in terms of the range of benefits they provide.

This knowledge and insight is helpful, but only goes so far. This is because we still need a much more detailed understanding about the composition of our urban forest and the value of its benefits, so that we can target effective improvements and benchmark our strategic progress. We also require updated canopy cover data to reflect current ward boundaries. This will enable us to focus our tree planning resource towards areas of greater need.

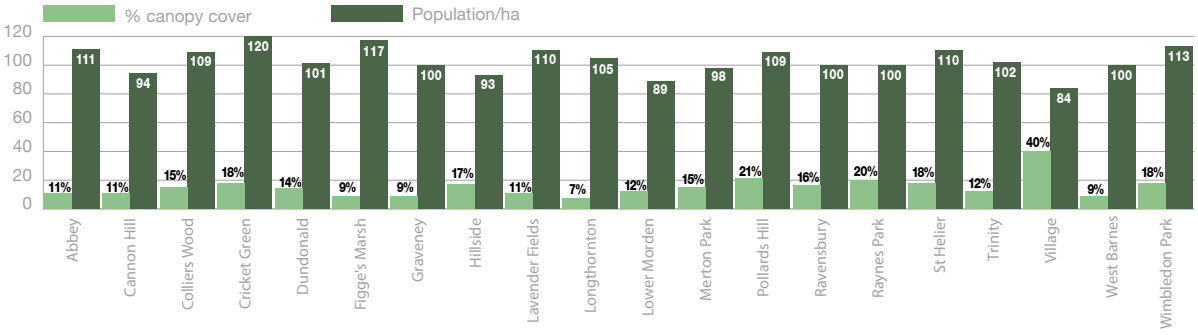


Figure 4 – Tree canopy cover in Merton compared in relation to population density (pre-2022 Merton Ward boundary changes). (Source: UK Ward Canopy Cover Map. Forest Research and UK National Statistics)

4 United Kingdom: London (Boroughs and Wards) – Population Statistics, Charts and Map (citypopulation.de)

4.2 Merton's council-owned tree population

Information relating to the management of Merton's council-owned trees is currently recorded using two separate software systems. The need to transition to a single system is recognised.

Based on analysis of our existing data we estimate that we are responsible for approximately 31,500 trees across the borough.

Most of our individual trees are associated with highways and are situated in parks, although we also have a significant number of trees at housing sites, schools, cemeteries and other facilities. **Figure 5** illustrates how our trees are distributed in terms of their general locations.

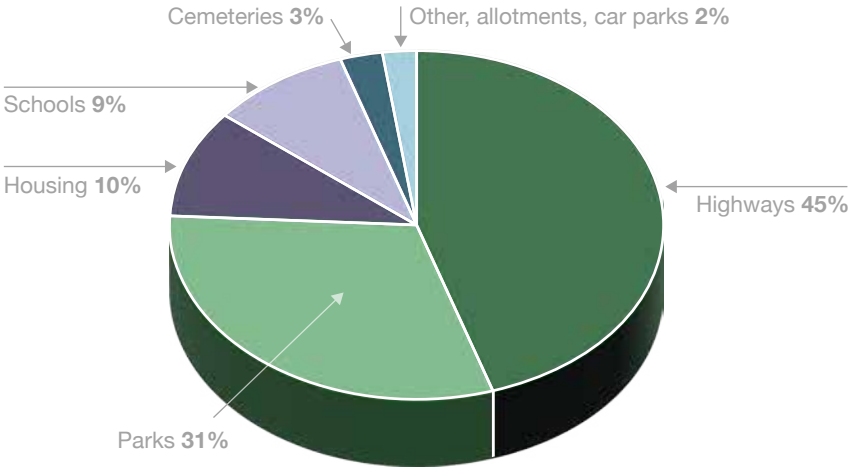


Figure 5 – General locations of council-owned trees

Analysis of our survey records suggests that our tree population is made up of just under 500 distinct species/varieties and cultivars. This diversity suggests longstanding expert arboricultural input to tree planting and species selection. However, when our tree population is analysed to categorise the tree population by genera (that is different species of the same 'types' of tree) the fundamental make-up of the overall tree stock appears less diverse.

Figure 6 shows that half of our total tree population is made up of trees from just five genera with another six genera making up for a further quarter. The remaining 24% of the tree population derives from 128 genera.

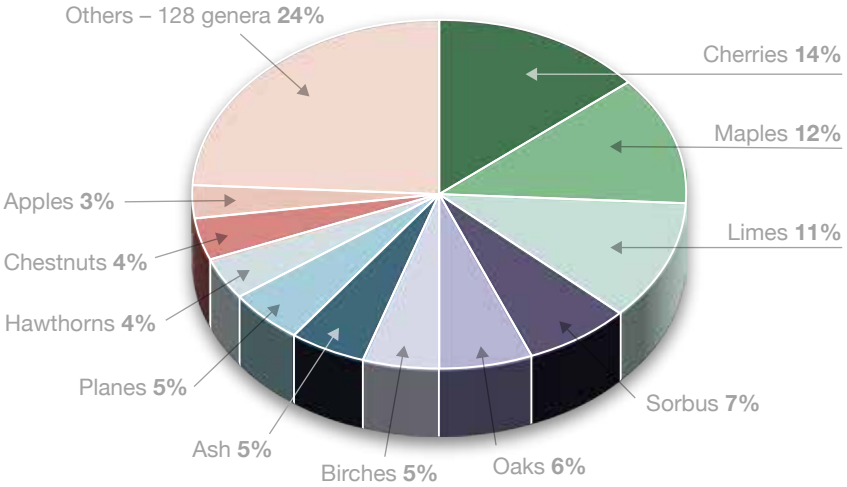


Figure 6 – Generic composition of council-owned trees

To qualify this, it is worth noting that within a particular genus there can be considerable variety. For example, our population of 'cherries' has at least 41 different species/varieties/cultivars of *Prunus*. Also, a genus can contain trees of substantially different sizes, for example, some 'maples' such as Japanese maple *Acer japonicum* are small and ornamental, whereas others, for example sycamore *Acer pseudoplatanus* and Norway maple *Acer platanoides* can become substantial trees in maturity.

Despite these considerations, and in general terms, we have an ongoing opportunity to improve the generic diversity of the council-owned tree stock. Lack of diversity means that significant proportions of our tree population are potentially vulnerable to host-specific pests and/or pathogens which might yet become established in the UK. This process is already underway, we have a wide range of different types of trees within almost a quarter of our tree stock.

To gain further preliminary understanding of the whole of our tree resource and its potential to deliver benefits for Merton, we have allocated the quantities of each species etc to one of five broad categories. Despite an inevitable degree of interchangeability, these categories seek to distinguish between:

- Large broadleaf trees: 15m mature height and above.
- Medium-sized broadleaf trees: 10–15m mature height.
- Small trees: less than 10m mature height.
- Conifers.
- Shrubs.

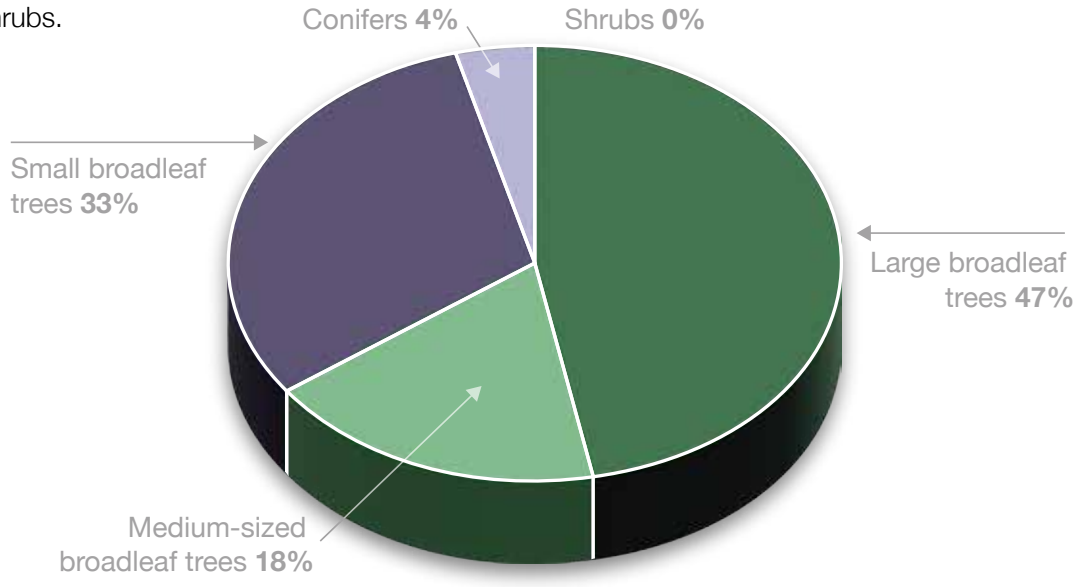


Figure 7 – Characteristics of council-owned trees in terms of potential mature size.

Figure 7 shows that almost half of our tree population is made up of potentially large-sized broadleaf trees. Although this is a positive attribute because large trees are the most beneficial in terms of green infrastructure function and climate change adaptation, this general finding must be qualified to an extent. This is because many of our 'potentially large' street trees are regularly pollarded (cyclically cut back to the same original pruning points) to contain their form and prevent them from achieving full size potential.

The analysis also indicates that we have a very low proportion of conifers. Because conifers can be particularly effective as absorbers of airborne pollution, this initial finding provides scope for additional focus to our tree planting initiatives.

Our inspection records focus on trees. Therefore this analysis suggests that we have a negligible shrub population. Obviously, our parks and other public spaces contain many shrubs and hedges, all of which make a positive contribution to green infrastructure function.

4.3 Tree planting on our land

The fundamental aims of the Service in relation to tree planting are:

- To improve the resiliency and to expand the tree canopy cover across the borough.
- To prioritise the planting of new green infrastructure in areas lacking trees to increase the species diversity of our tree population to build in resilience to pests and pathogens.
- To maximise the benefit and positive impact that tree canopy has on air quality.

We have a long-standing commitment to capitalising on viable opportunities to plant new trees on our land. Beyond this, however, there is a clear recognition that 'putting the tree in the ground' is only the first part of our fundamental responsibility to ensure effective *tree establishment*. In many cases, only well-planted trees that are properly looked after will be able to grow on to fulfil their potential and provide maximum benefits.

We actively participate in large scale tree planting schemes throughout the borough, notably:

- Block capital investments for tree planting annually.
- Participation in current tree planting funding streams such as the 'Urban Tree Challenge'.
- Our commitment to plant a 'Tree for Every Child' in 2022 as part of the Queen's Jubilee.

Other contemporary examples of tree planting on our land include:

- **Harris Academy, Wimbledon**. (February/March 2023).
  100 standard-sized trees. CIL FUNDED £25,000.
- **Urban Tree Challenge Round 3**. (February/March 2023).
  110 standard trees. MAYOR OF LONDON FUNDED £65,000.
- **Inter Faith Week Tree Planting**. (November 2022).
  8 standard trees. COUNCIL FUNDED.
- **Ward Tree Planting** to commemorate Queens Green Canopy 75th Anniversary.
  (January–February 2022). 20 standard trees. COUNCIL FUNDED.
- **Trees for Streets**. (December 2022 onwards).
  110 standard trees. MAYOR OF LONDON FUNDED. £12,800.
- **Trees for Cities Community Woodland Scheme (Dave Lofthouse Memorial Woodland)**. (February/March 2023).
  6,000 whips and 12 standard trees. TREES FOR CITIES FUNDED £48,000.

We recognise that planting and establishing new trees requires a consistent and coherent approach. Traditionally, funding streams for tree planting schemes can be start and stop and therefore at times somewhat 'piecemeal'. They can also be a reaction to specific events and receive large amounts of short-term publicity.

Our new strategic approach will be part of our treescape-orientated management. It will enable us to capitalise on tree planting scheme opportunities as they arise by incorporating these initiatives into our policy-led wider programme of tree planting and establishment.

4.4 What are the overall key challenges?

We face considerable challenges to cultivate healthy trees and to improve health, quality of life and the environmental character of the borough.

On a day-to-day basis, we must deal with the complexities of everyday interactions between people and our trees. Despite their many benefits, council-owned trees can also be associated problems and inconveniences of varying significance. There are various legal and other practical responsibilities that we must address in relation to:

- Tree risk management,
- Regular maintenance; and
- Reactive management where appropriate to address problems and inconveniences caused by trees.

In the medium and longer terms we also face the challenges of improving the council's tree population so that it makes a positive contribution provision to public health, well-being as well as the borough's wider adaptation response to the climate emergency.

This means we must seek to future proof our tree population by trying to make it as resilient as we can in the face of a range of threats including:

- Climate change.
- Air quality improvements.
- Increased incidences of pests and diseases; and
- Development pressures.

We need to deal with these challenges and threats in a consistent way by defining clear aims and suitable polices to achieve them.

5. Where do we want to be?

5.1 General

We want to *optimise* our tree population. This means we are going to look after and preserve our existing trees so that they can live on give benefits for as long as possible. At the same time we shall take a considered approach towards appropriately planting and establishing as diverse a range of tree species of varying sizes as we can on our land. Our goal is to maximise the amount of sustainable tree canopy cover on our land whilst minimising tree-related problems and inconveniences.

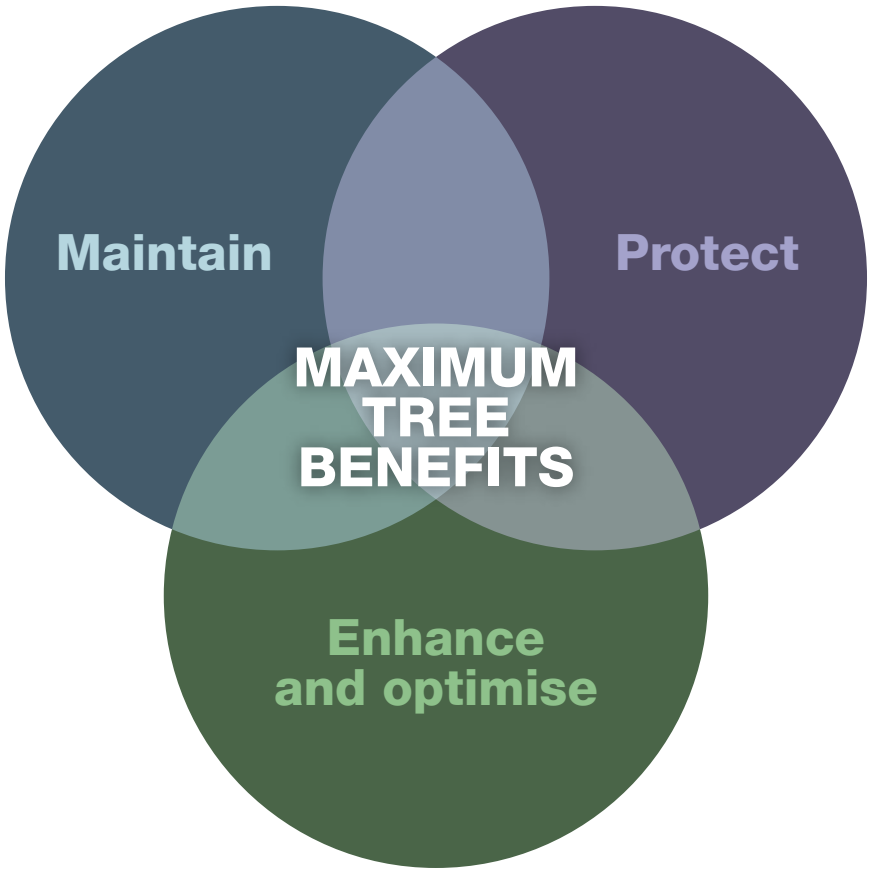
5.2 What are our aims?

Our overall tree strategy has three straightforward aims. In broad terms we shall seek to:

- **Maintain** our existing tree population and its current level of canopy cover.
- **Protect** our trees against a range of challenges/threats.
- **Enhance** and **optimise** our tree population to increase tree numbers and canopy cover to sustainably maximise tree benefits for future generations.

5.3 What are our objectives?

We shall apply clear policies designed to meet these aims in accordance with the Action Plan at **Appendix 3**. Details of performance indicators shall be developed and put in place separately.



6. How are we going to get there?

6.1 Policies

We have developed a range of polices to help us to achieve our aims. These fall into four categories:

- Tree Research (**TR**).
- Tree Maintenance and Management (**TMM**).
- Tree Protection (**TPR**).
- Enhancement and Optimisation (**EO**).

6.2 Tree Research (TR) – staying fully informed

Going forward we shall need up-to-date, detailed and definite comprehension of all the trees in Merton – not just council-owned trees. This means we must have suitable understanding of the composition and characteristics of our treescape or 'urban forest'.

TR1 – Detailed study of Merton's urban forest

To inform and enable effective management of all the trees in the borough, we shall undertake a systematic 'iTree Eco' study of Merton's urban forest.

We shall proactively build on the preliminary knowledge of Merton's tree canopy cover distribution as outlined at Section 4. This additional understanding shall enable us to prepare, implement and monitor a targeted borough-wide management plan – Part 2 of this tree strategy. We shall also seek to quantify the nature and extent of benefits provided by our urban forest.

Our study shall address the following areas in detail:

- **Overall canopy cover:** distribution of tree canopy cover not just on a ward-by-ward basis, but also to identify areas of greater and lesser need within these areas. This information can form an excellent starting point for the targeting of tree planting activities.
- **Structural composition:** survey and analysis of a suitable number of 'plots' throughout the borough. This information shall include (but shall not necessarily be limited to) details of:
  - Species mix.
  - Age range.
  - Distribution.
  - Health.
- **Functions and value:** we shall use the findings of our study to quantify the value of the many benefits that are provided by our urban forest: so-called 'ecosystem services'.

TR2 – Continued analysis of council-owned tree population

To continue to refine our understanding of Merton's council-owned trees through ongoing analysis of our improved tree survey and inspection data.

The ongoing implementation of Part 1 of our tree strategy shall mean more detailed information becomes available about the composition of the council-owned tree stock (for example, Policy TMM12). We shall regularly review and update the existing analysis (as set out at Section 4) of the council owned tree population's characteristics and apply this knowledge to the implementation of tree management policies – particularly with regard to tree species selection and planting/establishment.

6.3 Tree Management and Maintenance (TMM)

There are two key aspects to the management and maintenance of our existing trees. These are:

- **Risk management.** How we manage:
  - Risk from falling trees/branches.
  - Risk of damage to structures.
  - Other risks. For example, obstruction and encroachment by trees.
- **Tree works.** How we carry out:
  - Planned tree works as part of scheduled maintenance.
  - Reactive tree works in response to unexpected issues.

Also, how we:

- Prioritise tree works appropriately.
- Communicate the nature of works we are going to carry out.

Fundamentally, all policies are founded on an overarching presumption in favour of tree retention.

TMM1 – Presumption in favour of tree retention

Wherever it is viable to do so we shall not remove our trees. Council trees shall not be removed unless there are exceptional circumstances.

Because we recognise the value and importance of all the trees in Merton, we shall in all cases in the first instance seek to avoid the removal of any council-owned tree. This means that we shall explore pragmatic alternatives to felling that are proportionate to the tree's value. We note that retention of dead trees for wildlife habitat is a legitimate management option in some circumstances.

In all cases, the decision to remove a council-owned tree must be suitably evaluated, judged on its merits and suitably recorded by the council's arboricultural professionals.

TMM2 – Tree Risk Management Strategy

We shall implement and maintain a Tree Risk Management Strategy and a quantifiable system for assessing risk of harm from falling trees or branches.

Our Tree Risk Management Strategy is at **Appendix 4.**

TMM3 – Risk of damage to structures

We shall pro-actively manage the risk of damage to structures by our trees. In doing so we shall analyse all claims of alleged damage and, in suitably evidenced cases, implement reasonable and proportionate mitigation in a timely way.

As per TMM1, our default position shall be to seek to retain council-owned trees within our communities wherever viable.

Trees can damage structures either directly or indirectly (or both).

- **Direct damage** is generally caused by pressure that is exerted by the incremental thickening of a branch, trunk or root. The development of this type of damage is progressive and relatively slow. Examples of direct damage are:
  - Tree roots displacing kerb stones and/or lifting paving slabs.
  - Tree trunks/root buttresses causing adjacent walls to crack, lean or collapse.
  - Tree roots exploiting and making worse existing cracking in pipework.
- **Indirect damage** occurs on clay soils with the characteristic of expanding and contracting depending on moisture content. Water uptake through tree roots can result in soil drying and shrinkage beneath foundations, causing a building to subside and distort under its own weight. Associated cracking may compromise structural integrity.
- Conversely, a dried-out soil may rehydrate and expand if a tree is removed; a phenomenon known as 'heave'.
- In general terms, clay soils shrink during the growing season and then swell when trees are dormant in winter and rainfall is higher. Related structural damage reflects this: the building levels rise and fall and crack widths fluctuate. Such cyclical movements can clearly implicate trees.

We acknowledge our **Duty of Care** to cultivate our trees to do all that we reasonably can to stop tree-related structural damage from happening. However, we also recognise that trees are not necessarily the cause of structural damage in every case. Because we recognise the importance of trees benefits, it means that we must manage our responsibilities proportionately.

Preventative action

We shall develop and implement a strategic system to control the risk of indirect damage by our trees to buildings. This will be achieved by identifying locations within Merton where there is significant risk of tree-related building subsidence. Our system shall be based on analysis of the locations and severity of previously evidenced subsidence claims and also use British Geological Society base maps to identify areas of shrinkable clay. As part of this process we shall also align and fully comply with current industry best practice such as all related and emerging protocols recommended by the London Tree Officers' Association (LTOA).

TMM3 – Risk of damage to structures continued

In the areas where our arboricultural expertise considers that indirect damage is reasonably foreseeable (on clay soils), we shall operate a cyclical tree pruning regime. All trees within influencing distance of structures shall be subject to regular pollarding/crown reduction. The pruning shall be repeated at intervals of at least three years to reduce leaf area and control the trees' uptake of water from the soil.

Claims for damages

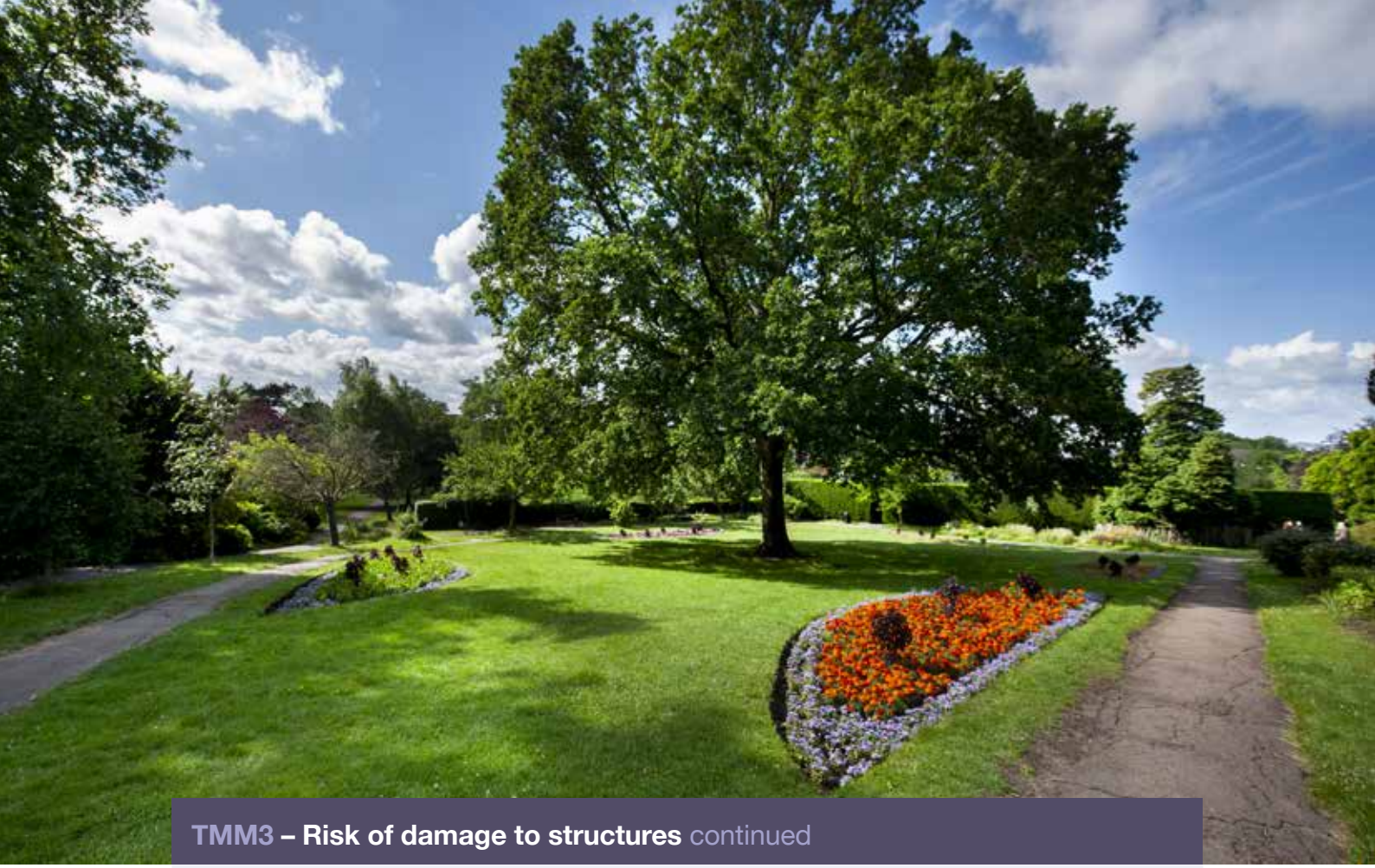
If there is alleged damage to a structure caused by a tree, it shall be the responsibility of the claimant to demonstrate (on balance of probabilities) the causal link. We shall co-operate by assessing all claims on a case-by-case basis and determining within a reasonable timeframe.

The levels of evidence to be provided in support of the claim must be proportionate to the value and importance of the relevant tree/s. If we consider that there is insufficient evidence then we shall challenge the claim, explain why, and request further information as may be necessary.

Submission of Evidence in support of a Claim

- **Direct damage:** written technical evidence from an appropriate expert, including description and analysis of the damage and options and recommendations for remediation.
- **Indirect damage:** as a signatory of the LTOA 'Joint Mitigation Protocol[5]' we shall require levels of information that reflect the value and importance of the tree/s (refer to Appendix B of the Protocol for full detail). In summary:
  - **Low value trees** (relatively insignificant trees which may be removed and replaced without significant harm):
    - A report on the damage.
    - A plan and profile of foundations.
    - A plan locating the building in relation to all significant woody vegetation in the vicinity.
    - Trial pit cross section drawing describing depth and underside of foundation.
    - Borehole log describing a borehole from base of trial pit to minimum of 3m depth.
    - Verifiable identification of any roots encountered beneath the underside of the foundation.
  - **Medium value trees** (make an important contribution to the area):
    - All the above information.
    - Soil moisture content from within the borehole at 0.5m intervals.
    - Soil plastic and liquid limits from beneath foundation and at 2m depth.
    - Calculation of soil plasticity based on the above.
    - A control borehole (and log) with tests to enable accurate comparison with the above. OR
    - Oedometer/suction test results for underside of foundation and at 1m intervals within the 3m borehole.
    - Shear vane results from beneath the foundation and at 0.5m intervals within the borehole(s).
    - CCTV and hydraulic tests of drains (not Water Board owned) within 3m of the subsidence damage area.
    - Crack monitoring (but preferably levels monitoring).

5 https://citypopulation.de/en/uk/london/wards



TMM3 – Risk of damage to structures continued

- **High value trees** (make an extremely important contribution to the area):
  - All the above information.
  - Boreholes as above but to 5m depth.
  - Levels monitoring data for a suitable period from the initial date of the claim to demonstrate structural movement that is consistent with tree root activity.
  - Soil particle size distribution analysis if there are drains within 3m of site of damage.

Remedial action

Whenever our trees are implicated in structural damage, we shall evaluate the remedial management options in relation to the CAVAT value of the tree/s. In so far as reasonably practicable, we shall seek to retain medium and high value trees. On this basis, our indicative threshold to trigger the evaluation of alternative solutions to tree felling shall be a CAVAT value of £25K or greater, although other specific cases may be similarly reviewed at the discretion of the Arboricultural Manager.

We shall take suitable and proportionate action to mitigate the harm as soon as we reasonably can. In so far as reasonably practicable, we shall seek to retain medium and high value trees. Remedial options may include, but are not limited to:

- Tree removal.
- Tree pruning.
- Root pruning.
- Installation of alternative structural solutions eg underpinning, raised surfacing, flexible surfacing, root barriers.

In all cases, where trees must be removed, we shall endeavour to establish a sustainable so-called ‘low water demand’ replacement tree/s.

TMM4 – Regular inspections for general maintenance/other risks

We shall routinely inspect all relevant trees to pre-empt other risks (detailed below) along with associated general maintenance requirements. This shall be prioritised according to risk levels and site usage.

As some trees grow and increase in size, they may begin to encroach into infrastructure. If this issue is not managed, the range and level of associated risks to people going about their day-to-day activities will get progressively worse.

We recognise our Duty of Care and in taking responsibility we shall pro-actively manage other risks from relevant trees in our ownership by inspecting and maintaining growth as may be necessary.

To achieve consistency, we shall apply the following thresholds where intervention on public land is required:

- **Sight lines** (road junctions, access points, road signs and traffic lights): clearance of 1m or three years' growth, whichever is greater.
- **Roads and pavements:** height clearances to comply with highway codes of 5.5m over roads with bus routes and 3m (guide height) over other roads and pavements. Lateral clearance from road edge of 1m or three-years' growth whichever is greater.
- **Footpaths and cycle paths:** height clearance of 3m and lateral clearance from edge of 1m or three-years' growth whichever is greater).
- **Streetlights:** clearance of 1m or three years' growth, whichever is greater).
- **Tree in contact with building:** clearance of 1m or three years' growth, whichever is greater.

Clearance specifications may be subject to reasonable adjustment based on arboricultural officers' assessment of site conditions and individual tree characteristics.

Unless there are exceptional circumstances, the above specifications shall apply only to branches and branch tips not trunks.

TMM5 – Reactive inspection of trees

Where unforeseen issues relating to council-owned trees are highlighted to us, we shall carry out appropriate reactive inspections in a timely way.

We may carry unscheduled inspections of our trees in some circumstances, for example if a tree risk issue is reported to us which we assess as needing further investigation.

In such a situation we shall carry out an inspection of the relevant tree/s in accordance with relevant tree strategy policies.

TMM6 – Standards of tree work

All tree work shall be carried out to British Standards recommendations by suitably competent contractors who fully comply with industry codes of best practice.

We shall appoint a single arboricultural contractor to service the borough over a fixed time. The contractor will be expected to fully engage with our arboricultural team to help deliver the highest standards of service. The Contractor will meet all relevant British standards and industry best practice. The Contractor will demonstrate a commitment to the ethos of our tree strategy.

As part of this process, we shall audit our arboricultural contractor to ensure compliance with legal and best practice obligations. We shall also intermittently carry out spot checks on contractors to ensure that appropriate standards and working practices are being maintained.

TMM7 – Commensurate Tree Replacement

We shall plant, protect and establish an appropriate number of suitable tree species required to replace the Green Infrastructure (GI) function of any council-owned tree that must be removed.

We recognise that it takes many years for replacement tree planting to seek to achieve the GI benefits that are provided by a large, mature tree if it has had to be removed. For this reason we shall adhere to a **Tree Replacement Standard**. This shall ensure that a proportionately larger number of replacements are planted depending on the trunk diameter of the tree that we have had to remove.

- Replacement commitment:

Tree replacement standard	
Trunk diameter in centimetres (measured at 1.5m height)	**Number of replacement trees**
<15	1
15–<20	1
>20–<30	2
>30–<40	3
>40–<50	4
>50–<60	5
>60–<70	6
>70–<80	7
>80	8

- Location of replacements: wherever it is practical and sustainable to do so, we shall plant at least one replacement tree as close as possible to the location of the tree that has had to be removed. Other trees shall be planted on nearby land identified as being suitable for tree establishment as part of our Enhancement and Optimisation policies.
- Species selection shall reflect a suitable evaluation of site conditions.
- Replanting shall be carried out during the planting season at the time of or immediately following the removal of the tree where practicable to undertake.
- Establishment and aftercare shall be in accordance with EO5.

TMM8 – Processing and actioning of tree enquiries

We shall maintain and seek to continually improve customer service telephone and online systems, to enable easy online reporting, assessment and investigation of tree issues.

All customer enquiries about our trees shall be received via our website and/or call centre and shall be initially processed by our customer services team. To improve the efficiency of this process, we have published 'Frequently Asked Questions' about common tree issues on our website. We shall also operate and improve our online reporting systems.

Enquiries shall be dealt with as follows:

- **Emergencies relating to council-owned trees**
  - Office hours – enquiry passed to Arboricultural Officer for assessment and action.
  - Outside office hours – enquiry passed to Duty Officer. Contact the Arboricultural Officer if necessary.

- **Emergencies relating to privately owned trees**
  - We **do not** provide a service to carry out work to privately-owned trees. We shall only intervene to carry out work to privately owned trees in exceptional circumstances: when there is an imminent danger and where the owner of the tree has failed to act within a reasonable timescale.
  - In these circumstances we shall act in accordance with the Miscellaneous Provisions Act 1976, Section 23 and/or the Highways Act 1986.
  - Cases to be assessed by the Arboricultural Officer with decision to act made by Assistant Director of Service.

- **General enquiries**

  A basic procedure for the processing of general tree-related enquiries is set out below:
  - Record customer name and contact details along with exact location of the tree and a description of the problem.
  - Determine that the tree is council owned.
  - Determine if Policy TMM9 applies? If yes, advise customer in accordance with tree strategy policies.
  - If TMM9 does not apply and the enquiry relates to risk of harm, damage to structures or encroachment/obstruction/other safety issue, ask customer to email details of the enquiry and photographs and refer the case to the Arboricultural Team.
  - If desk-based assessment by Arboricultural Team cannot resolve the issue, we shall aim to carry out a site visit and assessment (advising the customer of findings, management recommendations etc) in a timely way.

TMM9 – Management of tree-related inconveniences and problems

We shall not remove/prune a council-owned tree (or enter private property to tidy a site) to reduce tree-related inconveniences unless there are exceptional circumstances.

We hold the view that in almost all cases the benefits to the wider community that are provided by our trees outweigh the disbenefits that may be experienced by smaller numbers of individuals.

Examples of tree-related inconveniences:

- **Perceived fear of consequences of tree failure:** it is very common, especially during stormy conditions, for people living close to or beneath large trees to worry about what might happen if a tree breaks or falls. Our Tree Risk Management Strategy (TMM1) is designed and implemented to reduce the likelihood of harmful tree failures to acceptable levels and we hope that this can provide reassurance.
- **'Mess':** leaves, twigs, fruits, nuts, poplar/willow 'fluff', blossom can all fall periodically fall from trees. We shall only 'tidy' or otherwise manage tree-related detritus in relation to our own property.
- **Obstruction of daylight/sunlight to interior rooms and gardens:** there is no legal 'right to light' in relation to obstruction by deciduous trees.
- **Clearance from utilities:** it is the responsibility of the utility provider to liaise with us to maintain arboriculturally acceptable clearances. Cables can be relocated or 'sheathed' to prevent abrasion against trees, and we shall encourage this action as the initial option.
- **Obstruction of satellite TV reception:** it is the responsibility of the satellite TV provider to locate receiver dishes etc in locations that are unobscured by trees.
- **Wildlife issues:** trees provide valuable habitat for wildlife (mammals, birds, insects and fungi). Whilst this has many benefits, wildlife in trees can also have associated inconveniences:
  - Mess associated with bird droppings.
  - Secretions by aphids (known as 'honeydew') resulting in sticky mess and subsequent growth of sooty moulds.
  - Squirrels using branch tips to gain access to inadequately secured buildings.
- **Obstructing a view:** whilst a tree might obstruct one person's view, it is also likely to be an important and worthwhile component of someone else's.
- **General tree perceptions:** in some cases a tree is thought to be 'too tall' or 'too large'.
- **Encroaching branches:** branches from our trees may grow across boundaries and encroach over properties. Provided that the tree is not located in a conservation area or otherwise protected, there is a right in common law to prune encroaching branches/roots back to the boundary. Although the pruned branches remain our property, in these circumstances we do not wish them to be returned to us. In carrying out work of this nature and to comply with Health and Safety obligations, there must be no access onto council-owned land. We encourage anybody considering carrying out such work to communicate with us beforehand. Please note that if such work results in the death or destabilisation of a council-owned tree we reserve the right to apply Policy TPR3.
- **Allergies:** tree pollen can be associated with allergies such as hayfever.

TMM9 – Management of tree-related inconveniences and problems continued

Exceptional circumstances may include:

- **High evergreen hedges:** we shall manage the height of a row of two or more evergreen trees/shrubs if we consider that it forms a barrier to access or light and inhibits a person's 'reasonable enjoyment' of their property.
- Other exceptional circumstances shall be assessed on a case-by-case basis.

TMM10 – Communication and advice of tree works

We shall comply with statutory requirements and government guidance to ensure there is appropriate communication with stakeholders prior to the removal of any street tree. We shall also suitably communicate with our stakeholders to explain the reasoning for any significant tree works that we carry out.

The Environment Act (2021) imposes a duty on local authorities to consult on the felling of street trees. This duty to consult is intended to ensure that members of the public are appropriately consulted on the felling of street trees, which contribute positively to the quality of urban life.

Accordingly, we shall establish and operate systems (including maintaining an up-to-date register of stakeholders) to ensure that we operate fully in accordance with the requirements of DEFRA guidance; which currently in preparation. This guidance shall set out timescales and advice on how to interpret the requirements of the statutory duty.

For other council trees:

Unacceptable risks and actionable nuisances

For unacceptable risks, actionable nuisances and other urgent operations (including tree removals) required to control assessed levels of unacceptable risk or an actionable nuisance we shall necessarily be unable to give prior notice of work to be carried out. However:

❋ We shall publish explanation/clarification of our decision on our website within 10 working days.

Significant tree works

Notwithstanding Policy TMM1, if we consider that there is good reason to schedule significant tree works, we shall communicate as best appropriate. This may involve contact via:

❋ Website.
❋ Social media.
❋ Ward members.
❋ Stakeholder and Friends/Residents' Groups.

TMM11 – Prioritisation of tree work

We shall prioritise our tree work to deal with highest risks, responsibilities and liabilities.

Risk of harm

Our Tree Risk Management Strategy commits us to assessing and quantifying the risks from our trees by using a recognised system. This means that we can analyse our tree population to:

- Identify the highest, most significant risks.
- Categorise our trees in terms of tolerability of risk:
  - 'Unacceptable'.
  - 'Tolerable if ALARP'.
  - 'Broadly acceptable'/cyclic work programmes.

For unacceptable tree risks we shall instruct our contractor within the business day of becoming aware of the incident (which may necessitate a site visit) to carry out the work as soon as possible.

In relation to the above, we have determined the levels of work priorities and Service Level Agreements for task completion as follows:

- Level 1 – work to be carried out as soon as possible within the day of notification.
- Level 2 – work to be carried out within five (5) working days of notification.
- Level 3 – work to be carried out within ten (10) working days of notification.
- Level 4 – work to be carried out within 30 working days of notification.
- Level 5 – work to be carried out within three (3) months of notification.
- Level 6 – work to be carried out to pre-agreed project milestones – as applied to cyclic work programmes (ie pollarding and basal/epicormic growth management).

This approach means that we may not be able to reduce all the tree risks that have been categorised as Tolerable. However, we consider that it does mean we shall have reasonably and proportionately prioritised our actions according to assessed severity of risk and the availability of our resources. In this way we shall seek to prioritise managing all our trees so that the risk of harm is As Low As Reasonably Practicable (ALARP).

Structural damage

If we have assessed evidence and accept on the balance of probability that a council-owned tree is responsible for damage to a structure, we shall treat the matter in the same way as for an unacceptable risk and carry out necessary work within a slightly extended timeframe of one month.

Other tree works

All other tree works shall be scheduled as part of regular maintenance.

TMM12 – Recording and maintaining tree data

We shall maintain effective records in relation to all aspects of the management of our trees.

We recognise that good record keeping and data management is an essential aspect of effective arboricultural management for the following key reasons:

- Enables best understanding of the characteristics and make-up of the council's tree stock.
- Access to organised records and data is important to ensuring a legally defensible standpoint.
- Enables consistent 'replacement' financial valuation of the tree population in parts and overall.

Going forward, we shall transfer all existing tree survey data to a single tree-specific database, 'Ezytreev'. We shall also seek to maintain clear records in relation to all other aspects of our service.

TMM13 – Wildlife

In managing our trees, we shall comply with our legal and policy responsibilities to protect wildlife.

Where feasible and appropriate we shall seek to manage our trees with a view to maintaining and improving wildlife habitat. In doing so we acknowledge and recognise that certain 'open' habitat types such as meadows, heathland and wetlands, would decline in biodiversity value if trees were planted or allowed to establish by natural regeneration.

All tree work shall be carried out with appropriate procedures to seek to prevent reckless or wilful disturbance of wildlife (nesting birds and bats) in accordance with relevant legislation including but not limited to:

- Wildlife and Countryside Act 1981.
- Protection of Badgers 1992.
- Conservation of Habitats and Species Regulations 2010.

We shall support existing biodiversity aims/action plans including 'Merton WildWays', work appropriately within designated sites, seek to preserve green corridors and pro-actively manage irreplaceable habitats particularly ancient and veteran trees but also meadows, heathland and wetlands.

Where it is appropriate and viable to do so we shall favour natural regeneration and rewilding over tree planting as a means of enhancing canopy cover.

6.4 Protecting our trees

Our tree protection policies are set out below:

TPR1 – Tree Preservation Orders (TPOs)

We recognise our duty to protect trees if this is expedient in the interests of amenity. Within Part 2 of our tree strategy we shall set out our approach to serve and maintain TPOs to preserve publicly and privately-owned trees.

In Part 2 of our tree strategy we shall:

- Set out our own definition of 'amenity' (which is not defined by relevant legislation) to encompass considerations including (but not limited to): climate change adaptation, wildlife benefit, contribution to character of conservation area, others as may be relevant.
- Commit to developing our own system to help us assess amenity in a consistent way.
- Commit to reviewing our existing TPOs to make sure that they are up-to-date, in a digitised format and enforceable.
- Consistently and systematically enforce contravention of TPOs.

TPR2 – Trees in the planning process

We recognise our legal duty in determining applications for planning permission in proximity to trees. Within Part 2 of our tree strategy we shall clearly set out policies to make adequate provision for the protection and planting of trees within the context of new development.

In Part 2 of our tree strategy, we shall:

- Reference and build on relevant tree protection policies within the emerging Merton Local Plan and to reflect Regional and National best practice.
- Pave the way for preparation and publication of a separate Supplementary Planning Document (SPD) relating to trees. Key aspects shall include:
  - Clear guidance for developers.
  - Use of tree valuation systems as a means of quantifying tree losses and suitable compensatory replanting.
  - Use of financial bonds for the purposes of tree protection during the construction process.
  - Application of a tree replacement standard and clear planting specification requirements
  - Emphasis on professional arboricultural input before during and after the construction process.
  - Requirements for tree establishment monitoring reports for newly planted trees for a period of five years after planting.

The following policies deal specifically with protection if council-owned trees and the benefits they provide.

TPR3 – Provision of internal/external guidance and training

We shall publish good practice guidance to internal and external parties who carry out work operations in proximity to council-owned trees.

Many working practices such as excavations for services installation and/or resurfacing of roads and pavements have considerable potential to damage our trees.

We recognise that it is important to encourage a culture of tree protection as part of day-to-day activities and shall publish guidance on our website to encourage good working practices and minimise likelihood of damage occurring.

For non-statutory undertakers wishing to carry out works near to our trees we shall require a suitable Arboricultural Method Statement to be submitted and approved by our arboricultural team before any work is carried out.

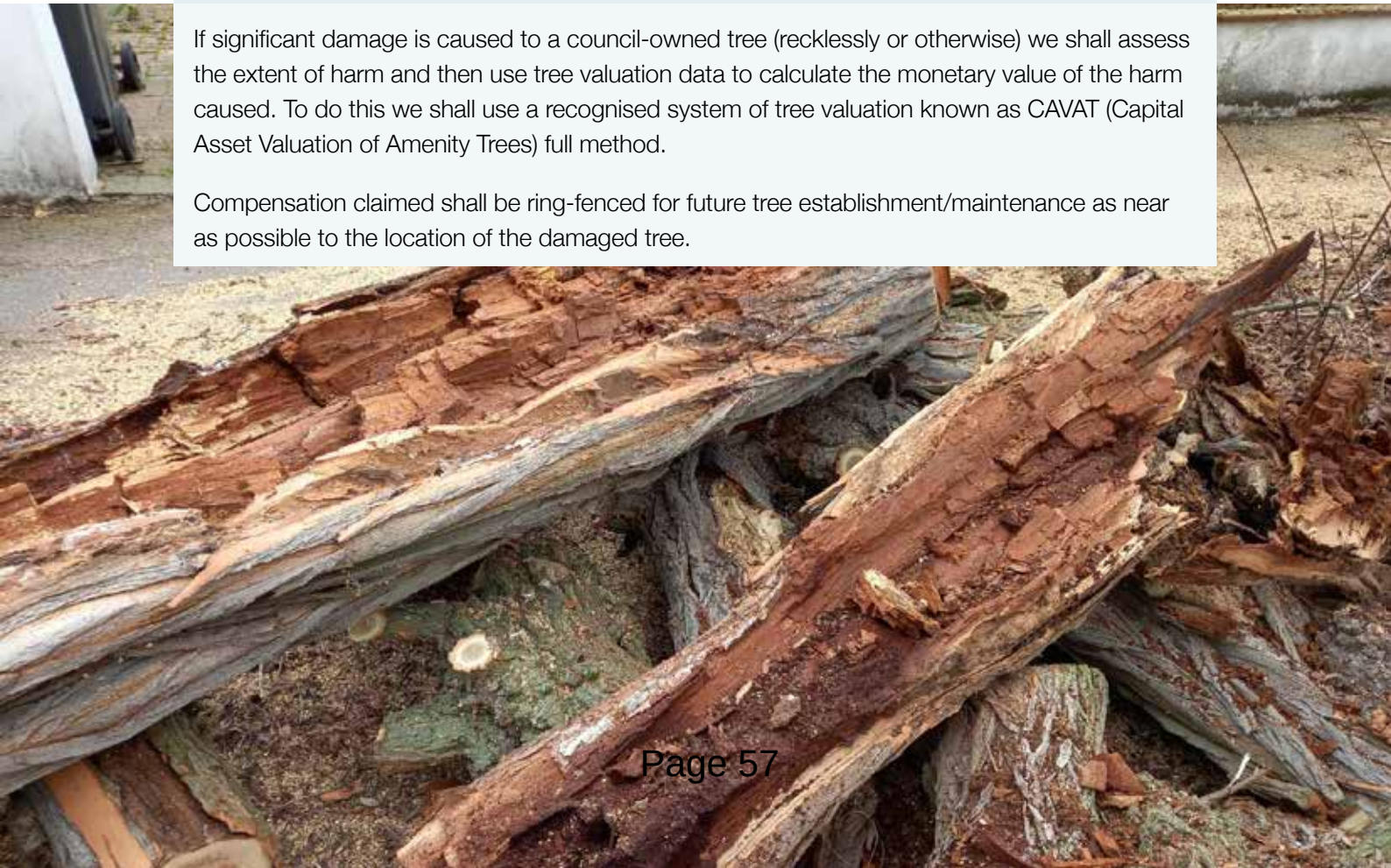
We shall prepare and offer presentation-based training for council staff who carry out work with the potential to damage our trees. If required, we shall extend this service to external organisations.

TPR4 – Compensation for damaged/destroyed trees

We shall seek to pursue any external individual/organisation responsible for damaging our trees to achieve a commensurate level of financial compensation.

If significant damage is caused to a council-owned tree (recklessly or otherwise) we shall assess the extent of harm and then use tree valuation data to calculate the monetary value of the harm caused. To do this we shall use a recognised system of tree valuation known as CAVAT (Capital Asset Valuation of Amenity Trees) full method.

Compensation claimed shall be ring-fenced for future tree establishment/maintenance as near as possible to the location of the damaged tree.



TPR5 – Protecting our trees from pests and pathogens

We shall implement pro-active biosecurity working practices to reduce risk of harm to and from our trees due to pests and pathogens.

The potential for introduced pests and diseases with potential to cause significant harm to the health and condition of our tree population has greatly increased greatly over recent decades. In general terms, this can be attributed to increased human activity at a global scale creating so-called 'pathways' for introduction to the UK. In many cases, this problem is likely to be compounded by a warming climate creating more favourable conditions for infestation and infection.

Less diverse tree populations with high proportions of single species are potentially more at risk. Also tree species that are native to the UK are potentially more at risk from introduced pests and pathogens because of a lack of co-evolutionary natural resistance. There is a significant risk to UK trees from introduced pests and pathogens that are already established in mainland Europe. For example, canker stain of plane (*Ceratosystis platani*), emerald ash borer (*Agrilus planipennis*), pine processionary moth (*Thaumetopoea pityocampa*), Xylella (*Xylella fastidiosa*) amongst many others.

Conversely, as well as harm to individual trees and tree populations, some pests and diseases also have varyingly significant implications for the health and safety of people. For example, caterpillars of the oak processionary moth *Thaumetopoea processionea* produce irritating hairs that can cause skin rash, eye irritation and breathing difficulties in humans and animals. Ash dieback disease *Hymenoscyphus fraxineus* typically results not just in terminal tree decline but also in embrittlement of branches and limbs making them more likely to break and fall.

We shall:

- Understand the species make-up of council-owned trees and seek to maximise the diversity of its species composition through a combination of new and replacement planting.
- Proportionately assess trees for the presence of significant pests and diseases as part of our overall programme of inspections.
- Ensure that our retained arboricultural contractor adheres to high biosecurity working practices:
  - In-house training on biosecurity matters.
  - Completion of biosecurity risk assessments.
  - Use of appropriate PPE, hygiene and sanitation practices.
  - Observation and reporting of pests and pathogens to Arboricultural Officer.
- Periodically monitor work sites and staff to ensure adherence to good biosecurity control measures.
- Report suspected cases of tree ill-health to the Forestry Commission as appropriate[6].
- Plant appropriately sourced trees, ideally UK grown by reputable suppliers that have been inspected for pests and pathogens on delivery to the planting site.

6 Home (forestresearch.gov.uk)

TPR5 – Protecting our trees from pests and pathogens continued

Oak processionary moth (OPM)
Merton is now designated as an area where OPM has become established.[7] This means that responsibility for management of the disease rests with us as tree owners and that no external practical assistance for control is available.

We recognise that OPM is a public health problem and shall advise and co-operate with Environmental Health colleagues to develop and implement an **OPM Action Plan** that reflects guidance published by DEFRA[8], the LTOA[9] and the Tree Council[10]. Our OPM Action Plan shall be proportionate to our resources and shall adopt a systematic yet flexible, risk-based approach to control. In other words, it is likely that we must target our resources to control the pest at more highly frequented locations such as school grounds and picnic areas.

Ash Dieback Disease
Ash dieback is a serious threat in the south-east of England, Merton Tree Officers monitor for infection and spread that could cause the decline and possible death of many infected trees.

To manage the impacts of ash dieback we shall develop and implement a suitable **Ash Dieback Action Plan** (ADAP) in accordance with the Action Plan Toolkit published by the Tree Council[11].

TPR6 – Permitted development on council land

In carrying out development works on our own land and in proximity to our trees we shall comply with industry best practice for tree protection.

Where permitted development is proposed close to council-owned trees we shall:

- Carry out an assessment of the trees and the constraints that they pose in accordance with the current version of BS5837 'Trees in relation to design, demolition and construction – recommendations.'
- Carry out a CAVAT valuation of the trees on the site.
- Evaluate options for establishment of new trees.
- Analyse and evaluate the arboricultural impacts (both positive and negative) of the permitted development proposals. Determine whether:
  - Tree protection measures can mitigate harmful effects and enable effective tree retention.
  - The arboricultural benefits of the proposals outweigh the disbenefits.
- Specify effective clear protective measures for the protection of trees in accordance with BS5837 along with suitably detailed method statements for carrying out work in proximity to retained trees.
- Require regular auditable monitoring of the effectiveness of tree protection during the construction process.
- Require evidence to confirm that proposed tree planting has been carried out and that effective establishment has taken place.

7 ManagementZones_Approved2022__002_.pdf (publishing.service.gov.uk) Accessed 14.06.2022
8 OPM Resource Hub – Home (fera.co.uk)
9 Oak Processionary Moth Guidance Note (ltoa.org.uk)
10 Tree-Council-OPM-Toolkit-for-Local-Authorities-January-2022.pdf (treecouncil.org.uk)
11 Tree-Council-Ash-Dieback-Toolkit-2.0.pdf (treecouncil.org.uk)

TPR7 – Installation of verge/pavement crossovers/dropped kerbs

We shall determine all applications for installation of verge/pavement crossovers/ dropped kerbs in accordance with council's crossover policy to protect Merton's existing and proposed council-owned treescape.

The residential need for vehicle crossovers to facilitate access to property is well understood, but this needs to be balanced with the need to support our green infrastructure and protect trees due to their contribution to our communities.

Root damage caused by excavations associated with the installation of close-proximity crossovers is likely to be harmful to council-owned trees. Root loss disrupts a tree's capacity to take up moisture and nutrients (which are essential for healthy growth) from the soil and results in a corresponding shock to vitality. In the short term, symptoms tend to manifest as crown and root system deterioration but, as time progresses, weakened trees can terminally decline due to colonisation by wood decay fungi and/or other pathogens. Root damage is therefore a significant potential risk to the sustainability of council-owned tree assets.

The position of the strategy is that applications for the construction of verge/pavement crossovers/dropped kerbs that require the removal, or which have potential to significantly harm a council-owned tree shall be refused unless there are exceptional circumstances.

Construction of a crossover requires excavations for foundations as well as other ancillary highway works. If these are carried out in the vicinity of street trees (see table below) there is a considerable likelihood that root damage will occur. The decision of just how sustainably close a new crossover can be to a highways tree depends on not just the current size of its likely root spread, but also a realistic consideration of its potential to grow, increase in size and potentially cause problems in the future.

The minimum recommended distances (based on BS5837:2012) between trunk and the edge of a proposed crossover are set out below.

Minimum distance between street trees and edge of crossover		
Merton street tree size class	**Current trunk diameter at 1.5m height**	**Protection radius (BS5837:2012) from trunk**
Young	up to 25cm	3m
Small	25cm–40cm	4.8m
Medium	40cm–60cm	7.2m
Large	60–80cm	9.6m
Extra large	>80cm	9.6m–15m (capped)

Any crossover application that is within the tolerances as outlined above, shall be required to include the submission of an Arboricultural Method Statement. The statement shall also include the analysis and evaluation of the proposals by a suitably qualified arboriculturist (NVQ/Lantra Level 4 and above, or equivalent).

TPR7 – Installation of verge/pavement crossovers/dropped kerbs continued

Details to be provided:

- Survey information (in accordance with the current BS5837) detailing the above and below-ground dimensions of nearby council-owned trees and an assessment of their quality. This information must detail a well-reasoned explanation of likely tree root distribution/morphology in relation to the presence and influence of nearby structures. This must be represented on a plan.
- A CAVAT valuation of relevant trees.
- Full construction details including scaled sections through areas of proposed excavation.
- A suitable assessment of likely arboricultural impacts and the Arboricultural Method Statement: clear specification of appropriate tree protection measures and associated site-specific working methodologies.

If we consider that insufficient information has been provided, we shall not validate the application and we will provide clear feedback explaining what further detail is required to help us reach our decision.

Where exceptional circumstances apply, and unless otherwise agreed in writing with the council, if a council-owned tree must be removed/damaged the applicant shall be responsible for:

- Payment of compensation commensurate to the CAVAT value of the tree (funds shall be ring-fenced for the planting and establishment of new trees on council land).
- The costs of tree and stump removal by an approved contractor.

We strongly recommend that all contractors/operators carefully document all work in proximity to council-owned trees. This is because where we consider that work has not been carried out correctly and that significant harm has been caused, we shall gather evidence and, where appropriate, implement TPR4.

In addition to the above, applications that will result in the significant or strategic loss of tree planting opportunities (specifically identified as part of implementation of EO3 of this tree strategy shall also be refused unless there are exceptional circumstances.

TPR8 – Installing and maintaining infrastructure and other work near to council-owned trees

Infrastructure works must be carried out in accordance with best arboricultural practice to minimise associated risk of harm to our trees

We recognise that maintenance of highways and below ground services is essential to keep Merton running effectively. Also, that in some cases work may be carried out as a statutory undertaking. However, if work is not carried out in an appropriate way, activities such as excavations and/or resurfacing are likely to harm our trees.

Root damage harms a tree's vitality because it disrupts its capacity to take up moisture and nutrients (which are essential for healthy growth) from the soil. Symptoms initially tend to manifest as crown and root system deterioration and dieback, however in the longer-term weakened trees are made more susceptible to colonisation by wood decay fungi and/or other pathogens. This can result in decline/death and or instability with associated risk of harm to people and property. Root damage is therefore a significant potential risk to the sustainability of council tree assets and the benefits associated with the wider treescape.

For services installation, all relevant operators must work in accordance with guidance produced by the National Joint Utilities Group 'Guidelines for the planning, installation and maintenance of utility services in proximity to trees'. The following subjects are discussed within NJUG10.

- How roots are damaged (root system, types of damage, if roots are damaged).
- How underground services are damaged (direct damage, root incursion, indirect damage, wind movement of the tree).
- How to avoid damage to trees (trench type and design, backfilling).
- Additional precautions near trees.
- Special considerations when planning services.
- Precautions when repairing existing services.
- Avoiding chemical damage to trees.
- How to avoid damage to services by trees.
- Above-ground services.
- Legislation and other guidance (statutory framework, other guidelines).

In addition we recommend all contractors also follow the London Tree Officers Association guidance https://www.ltoa.org.uk/surface-materials-around-trees-document/file

We recommend that all contractors and other operators plan their work beforehand, photograph site conditions prior to commencement and seek independent arboricultural advice about how best to deal with the task in hand. The arboriculturist should provide an 'Arboricultural Method Statement' which sets out a clear sequence of operations and details exactly how the work must be carried out.

We strongly recommend that all contractors/operators carefully document all work in proximity to council-owned trees. This is because in relevant cases where we consider that work has caused significant harm, we shall gather evidence and, where appropriate, implement TPR4.

6.5 Enhancing and optimising our tree stock

EO1 – Community and stakeholder involvement

We shall actively engage and co-operate with community, and other stakeholder groups that wish to be involved with aspects of management of existing trees as well as new tree planting and establishment on council-owned land.

We recognise that all Merton residents hold a stake in 'council-owned' trees and that active involvement with planting and caring for trees results in strong community cohesion and well-being, ensuring that we are contributing to and building a sustainable future. Because of this, we shall encourage approaches from community and other stakeholder groups, for example Merton Tree Wardens, friends groups and residents' associations with a view to suggestions for and participating in looking after council-owned trees.

We acknowledge and shall continue to support in practical ways the worthwhile contributions that have been made to Merton's trees by many stakeholders over the years.

Some key areas in which well-co-ordinated involvement can make a positive difference include contributing to:

- Preliminary assessment of land for potential tree and hedge planting.
- Aspects of tree planting, aftercare and establishment.
- Keeping a weather-eye on council-owned trees for obvious defects/risk features that may be significant to safety.
- Communication of rationale for proposed work to council-owned trees.

EO2 – Education

We shall encourage and support educational and teaching activities in Merton's schools that are designed to help young people develop wider awareness and enthusiasm for trees and the many benefits that they provide.

We believe that educating and involving young people is a vital part of building a resilient awareness of trees and the natural environment, long-term well-being and a sense of involvement with Merton's trees and open spaces.

Trees provide an excellent focus for teaching ideas and activities across the National Curriculum. We shall seek to contribute positively to educational initiatives and teaching activities involving trees. Key areas of anticipated involvement shall include:

- Forest school provision.
- Partnership with Royal Forestry Society's 'Teaching Trees' programme and a 'Junior Forester Award'.
- Provision of 'tree-training' resources, curriculum support and educational resources.
- Encouraging and facilitating involvement with tree planting and establishment in school grounds.
- Involvement of schools in local tree planting activities in the wider community.
- Support for associated services. For example, social work outreach, educational psychology/ behavioural services, special educational needs, virtual schools and children in care.

We recognise the need to focus these activities to try to benefit more disadvantaged parts of the borough. To this end we shall give due consideration to:

- Pupil premium register.
- Schools without school grounds.
- Schools with smaller intakes.

EO3 – Planning for tree planting and establishment

We shall seek to maximise the amount of viable and diverse tree canopy cover on our land with a view to contributing to contributing to the canopy cover increase target of 10%. To do so we shall carry out an audit of all relevant council-owned land and assess its suitability for long-term establishment of appropriate new trees.

Central to our approach is that tree planting and establishment must be an "intellectual process" that achieves balance between site conditions, tree selection and good working practice.

Our central objective and main desired outcome is to enhance and optimise the existing population of council-owned trees and the benefits that they provide. This means:

- Maximising the overall area of sustainable tree canopy cover with focus on areas where there is greatest need.
- Diversifying the number of different tree species and age ranges within the overall population.
- Achieving a resilient tree population in the face of a changing climate and increased levels of threat from pests and pathogens.
- Anticipating and minimising future levels of inconvenience potentially associated with the newly planted trees.

EO3 – Planning for tree planting and establishment continued

A key part of this process is to develop a detailed understanding of the land that we own and its potential suitability to sustain new tree planting for the long-term. There are three main stages:

Stage 1 – Identification of all potential planting sites
We shall work with stakeholders (including FutureMerton and Highways) to identify viable locations to establish trees. This shall involve consideration of, for example, DDA compliant pavements, utilities close to the surface beneath roads and potential for EV charging equipment on or off street.

Desk-based aspects:

- Identification of all council green spaces on a ward-by-ward basis using existing GIS mapping facilities.
- Assessment of each area using aerial imagery and/or online 'Street View' tools to identify if space exists for tree establishment.
- Gather of pro-forma information: ground covering (grass/hard surfacing), approximate available space, preliminary assessment of suitability for tree planting.
- Where desk-based results are limited or inconclusive, a preliminary site visit shall be carried out to complete the assessment.

On site:

- Identify all empty tree pits within highway pavements and other public hard surfaced areas.
- Note: empty tree pits may be temporarily tarmac-filled for trip hazard management but do remain viable. As such they will continue to be listed on our databases as planting locations.

Stage 2 – Evaluation of potential tree planting sites
Sites identified as having potential for tree establishment shall undergo more detailed viability assessment to enable informed decision-making regarding tree species/stock selection, site preparation and maintenance. Key aspects:

- Ground assessment.
- Climatic factors.
- Existing above and below ground features.

Stage 3 – Tree species selection
Tree species selection shall adhere to the principle of the '**right tree in the right place**'.
To achieve this we shall utilise guidance including that published by the Trees and Design Action Group (TDAG)[12].

Where appropriate we shall also consider the site's suitability for tree establishment and ecological enhancement by 'natural regeneration'

We recognise that native tree species can be highly important in terms of their wildlife associations. However, due to their vulnerability to imported pests and pathogens we shall not exclusively just plant 'native' trees.

12 Tree Species Selection for Green Infrastructure – Trees and Design Action Group (tdag.org.uk)

EO4 – Tree planting specification

We shall use clear and suitably detailed specifications for planting, supporting and protecting new trees to be established on our land.

Tree planting requirements vary greatly depending on the size and form of the tree and the site conditions. Transplants or 'whips' are relatively straightforward to plant, support and protect, whereas larger trees represent greater investment and merit a more considered approach depending on the setting. We shall plant all trees in response to site conditions and in accordance with best industry practice. We shall make specific reference to the principles and practices detailed in BS8545:2014 – Trees: from nursery to independence in the landscape. Key considerations are:

- Planting pit design and backfill.
- Support and protection for the new tree.
- Tree species choice (for location and also diversity/strengthening of tree stock going forwards.
- Appropriate mulching, irrigation and aeration.
- **Protection of trees from vandalism/strimmer damage**.

EO5 – Establishment and aftercare of newly planted trees

We shall cultivate, protect and support all our newly planted trees until they are satisfactorily established and self-sufficient.

We recognise that post-planting aftercare is essential for new tree establishment. Therefore, at suitably regular intervals we shall seek to ensure that all newly planted trees are appropriately:

- Supported.
- Watered.
- Mulched.
- Protected from damage (eg from vandalism, strimmer use etc).
- Formatively pruned.

Where instructing tree planting and establishment by contract we shall give due consideration to use of contract clauses to stage payments for a suitable time and until the planted trees are properly established.

We shall also work with one of our primary stakeholder groups, the Tree Wardens, to carry out leaflet drops encouraging local residents to water nearby recently planted trees.

EO6 – Management plans for existing key arboricultural features and irreplaceable trees

We shall devise and implement bespoke management plans for the benefit of our key arboricultural features, including veteran and ancient trees.

We are responsible for many individual trees and groups of trees that have specific management requirements. For example:

- Very large landscape feature trees (in excess 30m height). For example, but not exclusively, those within Ravensbury Park, Wandle Park, very large pines in Cannizaro. Also, street tree planes such as those situated in Dorset Road and Sheridan Road.
- Historic trees such as cedar trees in John Innes Park oaks in Cottenham Park, Morden Park, Morden Recreation Ground, Wimbledon Park and Cannon Hill Common. Also including some street trees such as Ridgway, Cannon Close and Chalgrove Avenue.
- Trees in relation to prehistoric mounds or other archaeological features
- Aged oak trees on Cannon Hill Common and the need for their branches to be propped and supported. Propped trees in Cottenham Park and Cannon Hill Common.
- Retention of dead trees and monolithed trunks for their invaluable dead wood wildlife habitat.
- Use of air-spading for inspection/vertical mulching.
- Requirement for a veteran tree inventory/survey.
- Morden Park (and other sites) event management compaction management. We shall manage the conflicts between events (small and large) and potential impacts on the natural environment. It is the landscape features such as large mature trees which make sites attractive to events, but events must not be to the detriment of the site. For this reason, we shall use barriers and ground protection (which many be temporary or permanent) in accordance with British Standards recommendations.
- Allotment sites and land adjacent to river banks where there are self-set, established trees and there has been encroachment by allotment holders.
- The Wandle trail.
- Sites of special ecological or arboricultural importance due to their unique nature where specific management is required to safeguard such as but not exclusive to:
  - Cherry Wood.
  - Remnants within Hillcross Primary School.
  - Woodmansterne Road Nature Reserve.
  - Horse Close Wood in Wimbledon Park.
  - Nature reserve areas in Morden Park, Cannon Hill Common, Coombe Woods, Fishpond Wood etc.
  - Areas around ponds/lakes, for example, in Morden Park and on Cannon Hill Common.

7. Monitoring, review and revision

7.1 Three-monthly monitoring

The Arboricultural Service shall provide the Assistant Director of Service with brief progress monitoring reports on a three-monthly basis with specific reference to a departmental Annual Tree Action Plan (ATAP).

The progress monitoring reports shall reflect data and feedback from the wider Arboricultural Team regarding the effectiveness of the tree strategy Part 1 policies and specific ways in which they might be improved. This information shall be gathered and recorded as part of team members' day-to-day activities.

7.2 Annual peer (Officer) review

The effectiveness of Part 1 of the tree strategy shall be formally reviewed every year by the Head of Park Services and the Arboricultural Manager to evaluate its fitness for purpose. Key aspects for consideration may include but shall not be limited to:

- Incorporation of new data about Merton's urban forest derived from the i-Tree study arising from Part 2 of the tree strategy.
- Evaluation of ATAP objectives and the extent to which they have been achieved.
- Review and interim refinement of policies.
- Identification and definition of new objectives and updates.
- Any other aspect considered relevant to improve quality, efficiency and optimise tree benefits.

7.3 Three-yearly service review

The implementation of the tree strategy and its effectiveness also shall be subject to internal service review carried out by a Merton senior manager to tree management every three years. This shall consist of:

- Analysis of the progress monitoring reports and peer reviews in relation to defined outcomes in relation to the Strategic Tree Action Plan (STAP).
- Evaluation of current the STAP and refinement of any objective within the plan.
- Further review and interim revision as may be necessary.
- Any other aspect considered relevant to improve quality, efficiency and optimise tree benefits.

7.4 Six-yearly formal revision

Based on learning outcomes from the above processes, Part 1 of the tree strategy shall be collectively formally reviewed, redrafted (in consultation with key stakeholders) and subsequently formally re-adopted by the council every six years.

Appendices

Cannizaro Park

Appendix 1 – Summary of tree benefits

Some of the benefits provided by urban trees

Healthy urban trees and the collective benefits of their canopy cover are the essential means to make Merton an even better place to live.

Just some of the benefits of urban trees are listed and described below:

Environmental benefits:

- Carbon capture and storage.
- Reduction of 'urban heat island effect' (this is where buildings and hard surfaces absorb and retain heat during hot weather).
- Cooler living and street environments during summer. This is due to microclimates associated with the evapotranspiration and shading effects.
- More stable winter temperatures. Trees reduce wind speed and turbulence which in turn reduces infiltration of cold weather into buildings.
- Sound absorption and noise reduction.
- Absorption of air pollution.
- Rainfall interception and sudden flooding risk reduction.
- Habitat provision for wildlife and increased biodiversity.
- Essential feature of green infrastructure.

Societal benefits:

- Improved health and wellbeing. Greener environments with trees encourage healthy active lifestyles, and generally alleviate stress, anxiety and depression.
- Heritage Trees create a sense of place, historic context and local character.
- Increased community involvement and local identity.
- Reduced crime.

Economic benefits:

- Increased house prices. A well-treed locality positively influences perception of place and increases property values. Where there are significant numbers of larger, more established trees property values are substantially higher.
- Increased value to potential development sites. Trees provide natural context, green infrastructure function and sense of place.
- Creation of attractive environments for shopping activity.
- Creation of attractive environments for business investment and employment.
- The positive wellbeing effects of well-treed living environments result in reduced demand on public health services.

Areas with mature trees can be worth more as development sites.

Appendix 2 – Key national, city and local policies which support the need for a tree strategy

National policy

England Tree Action Plan 2021–24

Highlights the importance of tree strategies as an opportunity for local communities to decide where new trees will be planted and how existing trees will be protected.

Trees in Towns 2

A 2008 study by Department for Communities and Local Government Trees in Towns 2 which highlighted the need for co-ordinated and coherent management of local authorities' tree populations.

Regional policy

The London Plan 2021

Highlights the importance of trees and that London's urban forest and woodlands should be protected and maintained. This shall include:

- planting of new trees and woodlands, protecting 'veteran' trees and retaining existing trees of value as part of new development wherever possible. If trees must be removed the Plan requires provision for adequate replacement using a suitable valuation system.

London Environment Strategy 2018

Puts increasing tree canopy at the heart of the Mayor's vision to help make London greener, cleaner, more welcoming and more resilient. The Mayor's Programme for Enhancing London's Urban Forest includes:

- A major programme of tree planting to supplement tree planting by boroughs and support for larger scale woodland creation projects.
- Development of a new online map to enable Londoners and businesses to sponsor street tree planting in their area.
- Support for key organisations to promote best practice in managing and planting trees in the urban environment.
- Work with boroughs to increase shade and shelter.
- **Targets a 10% increase in canopy cover for the city overall**.
- Protection of existing tree resource, encouraging natural regeneration and creation of new woodlands.

Borough policy

Emerging Merton Local Plan 2022 – Policy O15.4 'Protecting Trees'

Key elements:

- Commitment to protecting trees and the natural environment.
- Protection of street trees.
- Supports use of technological advancements to enable successful establishment and growth of new street tree planting.
- Protection of trees using Tree Preservation Orders where appropriate.
- Requirement for retention and protection of trees implicated in new development.
- Requirement for replacement where tree removal is suitably justified. Use of tree valuation systems to quantify tree replacement/compensatory payments.
- Selection of appropriate tree species for replanting.
- Application of appropriate biosecurity measures.

Merton Climate Strategy and Action Plan

The Plan:

- Highlights importance of 'Strategic Tree Cover' and emphasises trees' important role in climate change adaptation, absorbing air pollution emissions and providing wildlife habitats.
- Commits Merton to collaborating with major providers to encourage tree planting on private land.
- Encourages tree planting in private gardens.
- Encourages residents to join or sponsor a community tree planting group.
- Envisages a Green Merton with more trees and vegetation leading to cooler and cleaner air, reduced flood risk.
- States Merton has 28% canopy cover. Approximately 22,000 trees in total with two thirds tree cover in private gardens.
- Commits the council to planting new trees on public land and council-managed green spaces.
- Commits the council to developing a tree strategy by 2022 to increase tree cover by 10% by 2050 and increase public participation. This is stated to be equivalent to approximately 800 trees per year (both public and private land).
- Sets tree planting targets: 1,600 additional trees established by 2022 (28% canopy cover). 11,200 additional trees planted by 2034 (29% canopy cover), 16,800 additional trees established by 2041 (30% canopy cover).

Appendix 3 – Action plan

Key issue	Key policies (note other policies may be relevant)	Action stage	Task description	Who responsible?	Outcome measures
Establish and improve effective understanding of Merton's Urban Forest	TR1	Implementation	• Commission and commence 'iTree-Eco' (or similar approved alternative) survey of Merton's Urban Forest by specialist external organisation.	• Arboricultural Manager • Head of Park Services	• iTree (or similar approved alternative) study commissioned to be delivered within defined timeframe. • Survey work commenced.
		Operational	• Formally engage with key stakeholder groups to encourage community involvement with the survey processes. • Surveyors visit survey sample sites and report findings in accordance with contracted schedules.	• Arboricultural Manager • Service provider/ contractor	• iTree survey findings are reported by stated date. • Nature and value of Merton's urban forest benefits are accurately quantified. • There is detailed analysis of canopy cover and its composition on a ward-by-ward basis. • All findings clearly reported in writing by contracted date.
		Developmental	• Apply findings to inform and benchmark requirements for Part 2 of the tree strategy. • Commission and implement Part 2 of the tree strategy.	• Arboricultural Manager • Head of Park Services	• Part 2 of the tree strategy commissioned by stated date.
Improve understanding Merton's council-owned tree population	TR2 TMM12	Implementation	• Review extent of existing tree survey data held on 'Mayrise' and Ezytreev. • Identify gaps in existing street tree survey data held on Mayrise. • Transfer all relevant existing Mayrise tree survey data to Ezytreev.	• Arboricultural Manager • Arboricultural Team	• Summary report prepared to identify findings and detail any existing shortfalls in council-owned tree survey data. • Ezytreev system updated to include data presently held on the Mayrise software system.
		Operational	• Carry out site visits to gather necessary further information. • Complete a full street tree inventory.	• Arboricultural Manager • Arboricultural Team	• Full street tree inventory established on Ezytreev • Mayrise system discontinued for purposes of tree management.
		Developmental	• Collate and analyse updated information to further develop the existing analysis of the council-owned tree stock at Section 4. • Evaluate findings and apply conclusions to inform emerging tree planting and establishment strategy.	• Arboricultural Manager	• Key findings incorporated into tree planting and establishment strategy.

Key issue	Key policies (note other policies may be relevant)	Action stage	Task description	Who responsible?	Outcome measures
Pro-actively manage the risk of harm from our trees	TMM2, TMM12, TMM6, TMM10, TMM11, TMM12, TPR5 Tree Risk Management Strategy	Implementation	• Assess and identify all council-owned land containing trees. • Transfer information to GIS and Ezytreev. • 'Zone' relevant areas of each site according to observation and estimation of how busy. Use traffic light system (Red/Amber/Green). • Transfer information to Ezytreev. • Set up a 'Failure Log'.	• Head of park services • Arboricultural Manager • Arboricultural Team	• GIS layer prepared identifying all council land containing trees. • GIS layer produced in relation to showing coloured usage zones. • GIS information added to Ezytreev. • 'Failure Log' established on system.
		Operational	• Prioritise, timetable and carry out formal tree inspections according to Zone ratings. • Provide online training resource to relevant Merton staff and key stakeholder groups to enable informal day-to-day observations and reporting of obvious tree risk features. • Formally inspect and risk assess relevant trees using the approved system. • Record all findings in Ezytreev and in the failure log. • Communicate and carry out tree risk control measures within appropriate timeframes. • Carry out and record contractor 'spot checks' to ensure standards compliance.	• Arboricultural Manager • Arboricultural Team • Service provider/ contractor	• Online downloadable training resource prepared describing how to identify potential key tree risk features. • Engagement with relevant Merton staff and key stakeholders to make the training resource available. • Preparation of timetable of tree risk assessment inspections in relation to all Merton-owned land. • Ezytreev and failure log maintained as up to date. • All tree works appropriately communicated and carried out within required timeframes. • Pro-forma contractor 'spot check' checklist prepared. • One contractor 'spot check' carried out per month.
		Developmental	• Monitor and review the tree risk management strategy and other relevant policies.	• Arboricultural Manager • Arboricultural Team	• Record and log for ongoing monitoring and review.
Pro-actively manage and maintain our trees	TMM4, TMM9, TMM10, TMM11, TMM12	Implementation	• Provide clear contract specification in line with TMM4 to Arboricultural Contractor to ensure appropriate clearances are established and maintained.	• Arboricultural Manager	• Service Level Agreement detailing maintenance inspection requirements required by TMM4 agreed with Arboricultural Contractor.
		Operational	• Carry out walkover inspections to identify where maintenance pruning is required.	• Service provider/ contractor • Arboricultural Team	• Record and log for ongoing monitoring and review.
		Developmental	• Review Service Level Agreement to ensure suitable regular inspection of council-owned trees for general maintenance.	• Arboricultural Manager	• Revise existing tender documents to ensure that all general maintenance management is carried out by the arboricultural contractor within specified timescales and on an ongoing basis.

Key issue	Key policies (note other policies may be relevant)	Action stage	Task description	Who responsible?	Outcome measures
Reactively manage and maintain our trees in a consistent way	TMM5, TMM8, TMM9, TMM10, TMM12	Implementation	• Training in relation to tree-related issues for front-of-house customer services team.	• Arboricultural Manager • Customer Services	• Set up and distribute clear guidance and procedures for customer services to enable consistent processing of tree enquiries in line with tree strategy. policies. Provide training if required.
		Operational	• Respond to and action tree-related enquiries in accordance with tree strategy policies.	• Customer Services • Arboricultural Team • Service provider/ contractor	• Where appropriate and in line with policy, respond to tree enquiries within specified time scales. • Communicate and implement tree works within specified timescales.
		Developmental	• Gather feedback on effectiveness of systems and effect improvements as may be necessary.	• Customer Services • Arboricultural Team • Service provider/ contractor	• Record and log for ongoing monitoring and review.
Manage the risk of damage to structures from our trees	TMM3	Implementation	• Review BGS data and previous subsidence claims to identify areas where tree-related structural damage is reasonably foreseeable. So-called 'hot spots'.	• Arboricultural Manager • Arboricultural Team	• Record 'hot spot' areas on GIS system and cross-reference with Ezytreev.
		Operational	• Identify all Merton-owned trees within hot spots that have potential to cause indirect structural damage and carry out appropriate pollarding/other pruning works. • Process any insurance claims arising.	• Arboricultural Manager • Arboricultural Team	• Identify all Merton-owned trees within hot spots that have potential to cause indirect structural damage and carry out appropriate pollarding/other pruning works. • All insurance claims processed in accordance with TMM3.
		Developmental	• Review approaches in accordance with emerging best practice, particularly that produced by the LTOA.	• Arboricultural Manager	• Prepare interim updates to TMM3 in line with LTOA best practice notes and implement as appropriate.
Planting and establishment of an appropriate number of replacement trees	TMM7	Implementation	• Establish auditable system for tree replacement.	• Arboricultural Manager	• Set up a 'Tree Replacement Log'.

Key issue	Key policies (note other policies may be relevant)	Action stage	Task description	Who responsible?	Outcome measures
	TMM7 continued	Operational	• Maintain accurate records of tree removals. • Plant and establish appropriate number of replacement trees.	• Arboricultural Manager • Arboricultural Team	• 'Tree Replacement Log' containing clear records of trees removed, their trunk diameters and the number of replacement trees that must be established. • Appropriate number of suitable tree species planted in appropriate locations during the planting season at the time of or immediately following tree removal. Recorded in 'Tree Replacement Log and also as part of general new tree establishment records.
		Developmental	• Review replacement commitment standards at regular intervals.	• Arboricultural Manager	• Record and log for ongoing monitoring and review.
Provision of internal and external guidance and training	TPR3, TMM8	Implementation	• Tree awareness training for council staff who carry out work with potential to cause harm to trees	• Arboricultural Manager • Arboricultural Team	• Develop an online downloadable training resource describing how trees can be accidentally damaged and how this can be avoided.
		Operational	• Promote training resource to relevant council staff and monitor uptake.	• Arboricultural Manager	• Record and log for ongoing monitoring and review.
		Developmental	• Review training content and provide to other external contractors and other operators if required.	• Arboricultural Manager	• Record and log for ongoing monitoring and review.
Pests and pathogen management	TPR5, TMM7 continued over page	Implementation	• Development of biosecurity action plans and checklists	• Arboricultural Manager • Arboricultural Team	• Develop a 'biosecurity checklist' for the arboricultural contractor to explain the best practice work standards that are required. • Develop Biosecurity Action Plans for dealing with ash dieback disease, OPM and other relevant pathogens.
		Operational	• Proactive and reactive inspection for pests and diseases as part of zoned and routine inspections, and in response to customer enquiries. • Proportionate management responses to identified cases of pests and pathogens.	• Service provider/ contractor • Arboricultural Manager • Arboricultural Team	• Biosecurity Action Plans implemented. • Biosecurity checklists incorporated into regular contractor spot checks. • Cases of tree ill health recorded and reported to Forestry Commission. • Significantly symptomatic ash trees removed from all high (and then subsequently) moderate use zones (refer to Tree Risk Management Strategy). • Incidences of OPM dealt with proportionately in relation to land use and potential to cause harm.

Key issue	Key policies (note other policies may be relevant)	Action stage	Task description	Who responsible?	Outcome measures
	TPR5, TMM7 continued	Developmental	• Maintain awareness of emerging tree pests and diseases and adapt management practices accordingly.	• Arboricultural Manager • Arboricultural Team	• Record and log for ongoing monitoring and review.
Development management	TPR2, TPR6, TPR7, TPR8, TMM7	Implementation	• Ensure relevant council services have clear understanding that damage to council trees must be avoided and how this can be achieved.	• Arboricultural Manager • Arboricultural Team	• Internal communication carried out within the council to ensure all council-owned trees are fully considered as part of the design processes for all permitted development. • Development of an internal consultation system to ensure assessment of potential arboricultural impacts and clear specification of suitable tree protection measures. • Development of checklists for the assessment of applications for new pavement crossovers/ drop kerbs.
		Operational	• Provision of consistent, clear arboricultural consultation advice in relation to proposed development near trees.	• Arboricultural Manager • Arboricultural Team	• Maintain records of arboricultural consultations received in relation to proposed new development. • Provision of consistent consultation responses with clear feedback in relation to applications with potential to harm council-owned trees.
		Developmental	• Carry out site visits ‘spot checks’ to verify suitable compliance with tree protection requirements. • Provide feedback to further improve tree protection.	• Arboricultural Manager • Arboricultural Team	• Provision and implementation of arboricultural consultation advice becomes routinely part of council permitted development processes. • Record and log for ongoing monitoring and review.

Key issue	Key policies (note other policies may be relevant)	Action stage	Task description	Who responsible?	Outcome measures
Stakeholder engagement and involvement	E01, EO2	Implementation	• Establish and maintain good relations with key stakeholder groups and schools.	• Arboricultural Manager • Arboricultural Team	• Set up and maintain a stake holder database as relations evolve.
		Operational	• Provide training. • Create opportunities for involvement. • Encourage and support tree-related teaching activities.	• Arboricultural Manager • Arboricultural Team	• Provision of online training, information recording pro-formas and required methods of communication/reporting. • Structured stakeholder involvement to reflect EO1 and EO2.
		Developmental	• Engage with stakeholders to review effectiveness and improve systems.	• Arboricultural Manager	• Record and log for ongoing monitoring and review.
Planting and establishment of new trees	EO3, EO4, EO5	Implementation	• Plan for tree planting and establishment. • Engagement with relevant council departments eg Highways.	• Arboricultural Manager • Arboricultural Team	• Desk-based assessment and targeted site visits of council-owned land to identify potential tree planting sites and empty tree planting pits. • Evaluation of potential tree planting sites and selection of sustainable tree species for each site. • Preparation of tree planting schedules. • Identification of sites suitable for tree establishment by natural regeneration. • Tree planting contracts with clear planting specification requirements prepared.
		Operational	• Plant new trees in accordance with best practice and according to budget availability. • Quality assessment of tree planting.	• Arboricultural Manager • Arboricultural Team • Service provider/ contractor	• Trees planted according to contracted specification.
		Developmental	• Provide newly planted trees with suitable aftercare until established. • Monitor planting success rates. • Replace planted trees that fail to establish. • Revise species planting lists to reflect possible environmental changes eg new pests and diseases	• Arboricultural Manager • Arboricultural Team • Service provider/ contractor	• Tree establishment procedures carried out in accordance with contract obligations.

Appendix 4 – Tree Risk Management Strategy

General

To date, no fatalities or injuries have occurred in relation to our trees. However, we acknowledge our statutory duty and responsibility to implement suitable measures to inspect and maintain our tree population to seek to prevent harm due to falling trees/branches.

We also recognise that in some cases people's perception of tree risk can be a major cause of concern. We hope that this Tree Risk Management Strategy will be able to provide reassurance.

Our strategic approach to tree risk management is in accordance with national guidance[13] published by the Forestry Commission and endorsed by the Health and Safety Executive (HSE).

We place great emphasis on the vast range of benefits and ecosystem services that are provided by our trees as part of Merton's overall Green Infrastructure. This enables us to act in a proportionate and reasonably practicable way – to maximise the vital benefits provided by our trees against tolerable levels of risk.

Our legal responsibilities

In working to fulfil our legal obligations in relation to Common, Civil and Criminal Laws, we shall take reasonable care to avoid acts or omissions that cause a reasonably foreseeable risk of injury to persons or property on land.

In summary, our key legal obligations are:

Common Law

- Duty of care owed to all people who might be injured by a falling tree/branch whether they are located on or adjacent to council-owned land.
- Liability: damages via civil legal action.

Civil Law (Occupiers Liability Acts: 1957 & 1984):

- Duty of care owed to all people who might be injured by a falling tree/branch on our land.
- Liability: damages via civil legal action.

Criminal Law (Health and Safety at Work Act (Sections 2,1 & 3,1): 1974):

- Duty as an employer to ensure, so far as reasonably practicable, that in the course of our tree 'cultivation' that employees and members of the public are not put at risk: *"It shall be the duty of every employer to conduct his undertaking in such a way as to ensure, so far as reasonably practicable, that persons not in his employment who may be affected thereby are not exposed to risks to their health and safety."*
- Liability: criminal prosecution in the event of infringement of legal duty.

13 National Tree Safety Group. (2011). Common Sense Risk Management of Trees. Forestry Commission. London

Hierarchy of responsibilities

Tiers of responsibility for tree risk management are detailed in **Table 1**.

Hierarchy of responsibility	
Role	**Responsibility**
Chief Executive	• Overall responsibility from a corporate perspective
Director of Environment and Regeneration	• Overall responsibility from a departmental perspective
Assistant Director of Environment and Regeneration	• Management from a strategic and divisional perspective
Head of Service	• Direct line management of service • Contract Senior Manager (authorised officer) • Audit of Tree Risk Management Strategy
Arboricultural Manager	• Responsible officer • Operational Contract Manager • Co-ordination of service implementation
Tree Officers	• Service implementation • Instructing officer – contract works

Table 1 – Responsibilities for tree risk management

Our rationale for tree risk management

NTSG guidance provides valuable perspective by highlighting that the overall risk of death due to falling trees [or tree parts] in the UK is "extremely low" (equivalent to a 1:10,000,000 chance) and that the rate of non-fatal injuries attributable to trees is "exceedingly small" (55 cases per year compared to other leisure-related cases of approximately 2.9 million).

These levels of risk fall well within the category of 'Broadly Acceptable'; as defined by the HSE in its Tolerability of Risk (ToR) framework (**Figure 1**) which defines three broad categories of risk:

- Unacceptable: higher than 1:10,000 likelihood of harm
- Tolerable: between 1:10,000 and 1:1,000,000 likelihood of harm
- Broadly acceptable: lower than 1,000,000 likelihood of harm.

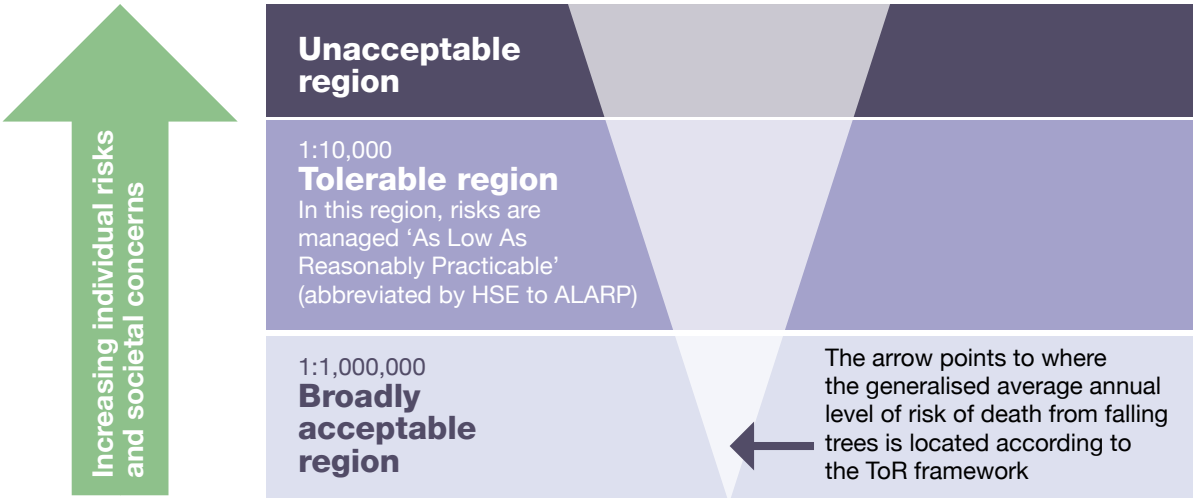


Figure 1 – Visual presentation of the level of general annual risks of death from falling trees – note the 'tolerable region' is where risks are managed As Low As Reasonably Practicable ('ALARP'). Source: NTSG

The HSE requires that risk control measures are implemented in relation to all risks that are assessed as either unacceptable or tolerable. This does not mean that all risks have got to be removed – risks can be reduced to a tolerable or acceptable level.

Risks are tolerable if they are managed to be as 'As Low As Reasonably Practicable' (ALARP). In practice, this means that when we risk assess our trees, we must proportionately allocate our resources and weigh-up the level of a risk against the trouble, time and money needed to control it. In doing so, we accept that tolerable risks are also part and parcel of to maximising and preserving tree benefits. We shall not erode tree benefits by carrying out disproportionate risk control measures.

Our risk assessment process

Stage 1 – Establish where all our trees are located

We shall review our GIS mapping data of land-ownership and identify all areas of land that are our responsibility. Using our existing extensive knowledge of our tree stock, online aerial/'streetview' images and other local knowledge (for example Tree Wardens) we shall confirm whether trees are present on site. If there is uncertainty, we will visit the site to confirm, undertaking Stage 2 of our risk assessment process at the same time. Council-owned sites containing trees shall be recorded as a discrete 'layer' on our GIS asset management system.

Stage 2 – Zoning

With a view to efficient and reasonably practicable allocation of resources to areas where they are most needed (ie the highest risk areas), we shall 'zone' our tree sites (or if appropriate areas within our tree sites) according to how busy they are by making an assessment of the volume and frequency of people accessing the land in accordance with **Table 2**.

Usage Zone Guidance		
Zone Rating	**Definition**	**Guide examples**
High	• Busy and moderately busy areas in frequent use • Areas where there is a likelihood of high and moderate numbers people congregating on an irregular basis • Structures of significant worth in the event of damage.	• All public 'A' roads, or other relevant transport infrastructure eg railways.
Medium	• Less busy areas in less frequent use • Areas where there is a likelilood of low numbers of people congregating on an irregular basis • Structures of moderate worth in the event of damage.	• All 'B' and 'C' roads • Most footpaths • Open space • Allotments • Woodlands containing paths/desire lines • Buildings and structures of moderate worth.
Low	• Areas with infrequent low volume use • Areas where there is insignificant likelilood of people congregating on an irregular basis • Structures of low worth in the event of damage.	• Woodland • Less accessible open space without paths • Structures of low worth (eg within cemetery sites).

Table 2 – Guidance for allocation of usage zones

Stage 3 – Prioritisation and carrying out zone inspections

Tree risk assessment inspections shall be prioritised according to zone ratings. All high zones shall be visited first with all medium zoned areas visited thereafter. It follows from this that in some cases only relevant parts of some sites shall be inspected for hazards in the first instance. Low usage zones shall not be subject to routine formal inspection. Instead, they shall be inspected by means of informal observation only (see below).

We shall use three levels of inspection:

Formal Inspections

- Carried out at set intervals on every tree within the zone to identify trees with obvious defects (an 'obvious defect' in the context of the growing environment of a tree is a structural, health or environmental condition that could predispose a tree to failure). Or
- Carried out as a 'walkover/drive-by' after storm events to look for recent damage.
- Carried out by a competent arboriculturist working at ground level using standard Visual Tree Assessment (VTA) processes.
- Further investigation of defects using probe/binoculars/sounding mallet if required.
- Findings recorded systematically on Ezytreev for all trees with obvious defects.

Informal Observations

- Carried out on a non-regular basis by our staff (whose day-to-day activities might take them to the site) and other local people (eg Tree Wardens).
- Used to pro-actively supplement Formal Inspections.
- In-house, basic tree inspection training relating to recognition of obvious defects shall be provided to relevant persons.
- Basic tree inspectors will "keep an eye on" trees and report anything posing an imminent threat to public safety to the Arboricultural Officer.

Detailed Inspection

- Carried out as required by a specialist arboriculturist in relation to high value trees that have been identified by previous formal inspection as giving high priority concern in terms of likelihood of failure.
- Shall involve the use of specialist methods such as resistance drilling to assist assessment of likelihood of failure.

Timing and frequency of inspections

Formal Inspections

These shall be scheduled to enable alternate visits to the trees during summer and autumn/winter. This will enable:

- Location and identification of fungal fruiting bodies associated with wood decay (these are typically most obvious during autumn).
- Visual assessment of limb and branch structure during winter (when leaves are not present on deciduous trees).
- Visual assessment of tree vitality during summer when deciduous trees are in leaf.

Inspections shall be at the following intervals:

- High usage zones: every 18 months to vary inspection times between the seasons.
- Medium usage zones: every three years six months.
- Low usage zones: only as required in response to informal observations reports of potentially significant risks.

Formal 'walkover' or 'drive-by' inspections shall also be carried out after all recognised 'severe weather' events. We define a severe weather event is defined as one that involves *average* wind speeds (ie not 'gusts') of Force 8 (39–46mph) on the Beaufort Scale.

Additionally, any individual 'special' trees (notable, veteran, heritage, ancient, champion) may be inspected at more frequent intervals specific to their needs and regardless of their location/zone rating. For example, a veteran tree in a high usage zone may be inspected on a quarterly annual basis whilst a similar tree in a low usage zone may be inspected much more infrequently. We believe that it is appropriate for arboricultural officers to exercise their own prudent judgement in this regard.

Stage 4 – Assessment of risk

We shall continue to assess risk by using a recognised system of quantified tree risk assessment.

Stage 5 – Recording of information

The maintenance of clear records is an essential part of our strategic approach. We shall use a single software package known as Ezytreev to record all data relating to risk management of all our trees.

A summary of inspection requirements is set out in table form on the following page:

Site usage zone	Level of inspection	Description	Information	Frequency of inspection	Inspector competency requirement
High	Formal inspection	• Inspect every tree. • Risk assess only trees with obvious defects.	• Record risk assessment findings in relation to every tree with an obvious defect/risk feature. • Record that all other trees have been subject to formal inspection.	• **Risk assessment** repeated every **18 months** to enable subsequent inspections during different seasons.	• Minimum QCF Level 4 Arboriculture. • Professional Tree Inspection (LANTRA). • Familiarity with suitable system of quantified tree risk assessment.
		• Walkover/drive-by inspection following severe weather events.	• Record findings in relation to any new obvious defects associated with the storm event. • Record that the formal walkover/ drive-by inspection has taken place even if no obvious defects are observed.	• After defined severe weather events only.	• Minimum QCF Level 4 Arboriculture. • Professional Tree Inspection (LANTRA). • Familiarity with suitable system of quantified tree risk assessment.
	Informal observations	• Generally observe trees as part of normal work operations when on the land.	• Report any obvious defects to the Responsible Person for actioning. • Annual file note confirming informal observations are ongoing.	• Ongoing as part of normal day-to-day activities.	• Basic tree inspection in-house training. • Familiarity with site conditions desirable.
Medium	Formal inspection	• Inspect every tree. • Risk assess only trees with obvious defects.	• Record risk assessment findings in relation to every tree with an obvious defect. • Record that all other trees have been subject to formal inspection.	• **Risk assessment** repeated every **36 months** to enable inspection during different seasons.	• Minimum QCF Level 4 Arboriculture. • Professional Tree Inspection (LANTRA). • Familiarity with suitable system of quantified tree risk assessment.
		• Walkover/drive-by inspection following severe weather events.	• Record findings in relation to any new obvious defects associated with the storm event. • Record that the formal walkover/ drive-by inspection has taken place even if no obvious defects are observed.	• After defined severe weather events only.	• Minimum QCF Level 4 Arboriculture. • Professional Tree Inspection (LANTRA). • Familiarity with suitable system of quantified tree risk assessment.
	Informal observations	• Generally observe trees as part of day-to-day activities.	• Report any obvious defects to the Responsible Person for actioning. • Annual file note confirming observations are ongoing.	• Ongoing as part of normal day-to-day activities.	• Basic tree inspection in-house training. • Familiarity with site conditions desirable.
Low	Formal inspection	None.	None.	None.	None.
	Informal observations	• Generally observe trees as part of day-to-day activities.	• Report any obvious defects to the Responsible Person for actioning. • Annual file note confirming observations are ongoing.	• Ongoing as part of normal day-to-day activities.	• Basic tree inspection in-house training. • Familiarity with site conditions desirable.

Storm events: We define a severe weather event is defined as one that involves average wind speeds (ie not 'gusts') of Force 8 (39–46mph) on the Beaufort Scale

Stage 6 – Controlling tree risk

Risk control measures shall be specified in accordance with the overarching strategic aims of:

- Maintaining tree benefits wherever it is appropriate to do so.
- Carrying out a minimum level of work to reduce risk to an acceptable level.

Before tree pruning or tree felling is specified, due consideration must be given to alternative methods of controlling the risk or otherwise optimising outcomes. These methods are likely to be site specific but will typically involve managing use of the land around the tree:

- Relocating play facilities, benches, paths etc.
- Allowing long grass to grow beneath the tree to discourage access.
- Planting brambles/blackthorn beneath the tree to deter access.
- Monolithing for habitat purposes.
- Retaining felled wood on the ground for habitat/play purposes.
- Dead hedging, fencing, knee rails, mulching etc.

Prioritisation and communication of tree work to manage tree risk shall be in accordance with Policies TMM10 and TMM11.

Failure log and accidents procedure

When any tree/branch failures occur, they shall be recorded on the failure log along with associated details such as remediation works.

In the event of damage/harm occurring the following basic procedure should be followed:

- Photograph the site extensively with particular attention to the failed parts of the tree.
- Record contact details of any witnesses or injured parties.
- If practical to do so, retain parts of the tree that have failed to enable possible future assessment by third parties.
- Report the dangerous occurrence to the HSE using appropriate RIDDOR procedures.

The above details along with the following information shall be recorded

- Species.
- Age class.
- Location.
- Weather conditions.
- Specific type of failure.
- Contributing factors.
- How foreseeable the event was prior to failure.
- Action taken following failure.

Monitoring, review and audit

Monitoring

The Arboricultural Service Manager shall provide the Assistant Director of Service with brief email progress monitoring reports on a three-monthly basis (month end March, June, September, December). The reports shall address the following areas:

- Tree failures occurred.
- Sites inspected and summary of key findings.
- Risk control management works carried out.
- Extent to which on schedule to achieve necessary workload for the year.
- Other relevant issues.

Review

The Tree Risk Management Strategy shall be reviewed and revised as may be necessary by the Arboricultural Manager (ie Responsible officer) annually, recording on the version control register that this has taken place. The following aspects shall be considered:

- Changes to relevant legislation/case law/judgements etc that may be relevant.
- Effectiveness of processes for assessing new council-owned sites for presence of trees if they come forward.
- Accuracy and up-to-date Ezytreev data and Tree Sites GIS layer.
- Accuracy and up-to-date Usage Zone GIS layer (these are likely to be refined as further site visits take place).
- Effectiveness, ease of use and accuracy of the risk assessment system.
- Effectiveness, ease of use and accuracy of the progress monitoring system.
- Any other aspect considered relevant to improve quality, efficiency and optimise tree benefits.

The following performance indicators shall be applied to enable systematic review:

- The Tree Risk Management Strategy is reviewed annually.
- All subsequent amendments to the strategy are fully implemented.
- All trees in the high and medium use zones are inspected within specified timeframes.
- Records of informal observations carried out in relation to all sites.
- All risk control works carried out within specified timescales.
- Failure Log has been completed in full for all reported tree failures.
- Post storm event inspections carried out and recorded in relation to all of high and medium usage sites.

Service Audit

The Tree Risk Management Strategy shall be subject to internal service audit carried out by a Merton senior manager to tree management every three years and consist of:

- Assessment of a random sample of five sites: two high zone, two medium zone, one low zone to determine that procedures set out within the Tree Risk Management Strategy are being fully adhered to.
- The purpose of the audit shall be to compare all actual working practices to the requirements of the Tree Risk Management Strategy, identify strengths and weakness in the system and make recommendations for improvement.
- It shall be the responsibility of the Senior Manager to report any non-conformities to the Arboricultural Manager (ie responsible officer) who shall be responsible for implementing appropriate solutions in a timely manner.

LONDON BOROUGH OF MERTON

TREE STRATEGY 2023–2029

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