Southwark Tree Management Policy

Contents

Executive Summary

Trees have long been valued for their beauty, marking the seasons and providing sanctuary for wildlife. The environmental benefits of urban trees within ecosystem services including reducing pollution, cooling air, providing shade and protection from ultraviolet light, intercepting and absorbing rainfall and storing carbon are also now increasingly well understood. Trees are less often considered as an integral and historic component of the urban landscape and its architecture, where they contribute to local character and can define a sense of place, frame views and vistas and strengthen our heritage and culture. The sum of all these benefits is often defined as the amenity value of trees.

At a time where recent pace of change and development within Southwark has been having an increasing impact on the borough's built environment it is ever more important that the benefits that trees provide across the borough are protected and enhanced.

The document first identifies the benefits of the treescape across Environmental, Biodiversity, Health and wellbeing, Heritage value and future urban landscapes and Socio-economic themes. This leads to the exploration of Southwark's treescape with further detail provided in Appendix 1.

Policy context is set out across European, National, Regional and Local framework levels before Southwark's 17 Tree Policies are set out. These have been themed in the following groupings; Tree maintenance, removal and planting, Managing Tree Risk, Trees and built environment, Planning and development and Biodiversity in an easy to use format for quick reference.

Further technical information is set out in appendices which cover Tree Risk Management Strategy, Southwark's Treescape, Policy framework, Tree Risk Management Strategy, Tree planting, Managing trees and subsidence, Biosecurity and Southwark's new BAP.

One of the objectives of the Policy is to ensure that anyone can use this document to understand how the council manages its tree stock and to provide relevant policies setting out why certain works are, or are not, carried out on trees.

In order to benefit all who live and work in Southwark this Policy will contribute to the combined efforts of all stakeholders to assist in the security, preservation and enhancement of the council's treescape and green spaces in to the future.

1 Introduction

1.1 Purpose of the policy document

- To promote awareness of the value of trees in our environment.
- To interpret the policy framework on trees at European, National, Regional levels.
- To set out our policies to enable us to protect and enhance Southwark's treescape.

1.2 Vision and objectives

Southwark's Vision is:

The Council recognises the positive impact that urban trees have on the environment and the lives of people in Southwark and aims to protect the current tree stock. The Council aims to maintain a healthy, protected and sustainably managed tree stock that contributes significantly to the health safety and well being of Southwark residents.

In order to realise this Vision the following Strategic Objectives (SO) have been adopted:

1. To manage the existing tree stock in accordance with good arboricultural practice.

2. To maintain a general presumption against the removal of trees, allowing felling only in accordance with good arboricultural practice, and to ensure that adequate and appropriate replacement planting takes place where planting is desirable, aesthetically necessary and sustainable.

3. To recognise the relationship between trees and the built environment and their role in helping to combat air pollution and climate change. Also, promoting the 'Right tree, right place' philosophy for new and replacement planting.

4. To continue to ensure protection of trees subject to Tree Preservation Orders and in Conservation Areas, with trees to be retained on development sites and to require high standards of replacement tree planting. Southwark will also initiate prosecution where unauthorised tree work has taken place, or to take enforcement action where breach of planning permission has occurred where it is expedient to do so.

5. To promote the value of trees to residents, businesses and developers through good management and education, and explore ways for greater involvement, consultation and protection of trees and woodlands.

1.3 Benefits of the urban treescape

Environmental

Trees benefit our environment in the following ways:

Improving air quality

Trees are effective agents in enhancing air quality by producing oxygen (via the process of photosynthesis), and also through the capture of urban pollutants e.g. sulphur dioxide, nitrogen oxides, ozone, particulate matter, carbon monoxide and lead and heavy metals[1]. Some air pollutants such as dust ash, pollen and smoke are absorbed by leaves and bark or are temporarily intercepted from the air and washed in to the ground or collected by drainage systems.

Urban Cooling

As summer temperatures increase through climate change the importance of trees and other vegetation in reducing the 'heat island effect' through shading and evapotranspiration during the day and cooling the built environment at night time has become ever more apparent[2]. In the winter trees lower wind speeds reducing heat loss from buildings.

Climate change mitigation

Trees play a crucial role in mitigating climate change[3]. Over a year a mature tree can remove approximately 22kg of carbon dioxide from the atmosphere whilst soil around a tree can provide durable carbon stores[4].

Reducing noise and calming traffic

[1] Donovan, G. H. & Butry, D. T. The value of shade: Estimating the effect of urban trees on summertime electricity use. Energy Build. 41, 662–668 (2009).

[2] ROSENZWEIG, C., SOLECKI, W. D., PARSHALL, L., LYNN, B., COX, J., GOLDBERG, R., HODGES, S., GAFFIN, S., SLOSBERG, R. B., SAVIO, P., DUNSTAN, F. AND WATSON, M. (2009). MITIGATING NEW YORK CITY'S HEAT ISLAND Integrating Stakeholder Perspectives and Scientific Evaluation. Bulletin of the American Meteorological Society
90(9), 1297-1312.

[3] Nowak, D. J. Atmospheric carbon reduction by urban trees. Journal of Environmental Management 37, 207–217 (1993).

[4] Nowak, D. J. & Crane, D. E. Carbon storage and sequestration by urban trees in the USA. Environ. Pollut. 116, 381–389 (2002).

Trees can help reduce noise pollution through the absorption of sound waves muting noises from building facades and canyonised street configurations.

The presence of roadside trees significantly increases driver perception of spatial edge. The evidence that the presence of trees by the roadside has a positive impact on driver behaviour is apparently sufficiently compelling that, at the operational level, the Department for Transport has reported a number of schemes aimed at using tree planting to reduce speeds and hence accidents[5],[6].

Sustainable Urban Drainage and Bioremediation
Trees play a vital role in reducing the runoff associated with flash flooding by slowing down the rate of flow through interception and also through the active process of evapotranspiration. Some tree species also help to ameliorate soil and water conditions through bioremediation by absorbing, processing or neutralising a wide range of pollutants[7].

Biodiversity
Urban trees support biodiversity through their contribution to creating green corridors, enhancing the ecological permeability of the built environment. Trees provide habitat and a food source for a diverse variety of flora and fauna species both in densely built up areas as well as urban woodlands. A single mature oak tree can support up to 500 different species of flora and fauna[8].

Health and wellbeing
Urban trees can help build stronger community cohesion and enhance how safe and healthy people feel. Most people prefer to live and work amongst greenery recognising the importance of the value their treescape and greenspaces in otherwise built-up densely populated areas. Within greenspaces trees provide inviting areas for exercise[9] providing shade, reducing the risk of skin cancer and heat related health problems. A rich and diverse treescape has also been shown to help reduce stress and contribute to other health benefits[10] and reduce the recovery times of patients in hospital[11].

Heritage value and future urban landscapes
Trees have always featured prominently in history, art and literature holding an important place in our collective imagination as key features in the landscape contributing to local identity and heritage. The preservation of landmark trees help mark time in an increasingly developing urban environment helping to create links between generations; by contrast planting new trees provides a great opportunity to look to the future. Whilst trees can provide enhancement and help emphasise or soften existing architectural features, new developments provide exiting opportunities to create new and differing localities and atmospheres through consideration of landscape perception principles[12].

Socio-economic
As the awareness of the benefits trees increases social demand for trees has never been greater. Trees help to create welcoming areas within our town centres, encouraging people to visit and stay for prolonged periods, using shops and restaurants, whilst workers who have

[5] CLARK, J. AND MATHENY, N. (2009). The Benefits of Trees. Arborist News 18(3), 12-18.
[6] Rosenblatt, J., Kweon BS. and Maghelal, P. (2008) The street tree effect and driver safety. ITE Journal on the Web, 69-73.
[7] French, C. J., Dickinson, N. M. & Putwain, P. D. Woody biomass phytoremediation of contaminated brownfield land. Environ. Pollut. 141, 387–395 (2006).

[8] Miles, A. Silva: The Tree in Britain p64 (1999)
[9] LEE, C. AND MOUDON, A. V. (2008). Neighbourhood design and physical activity. Building Research & Information 36(5), 395-411.
[10] LOVASI, G. S., QUINN, J. W., NECKERMAN, K. M., PERZANOWSKI, M. S. AND RUNDLE, A. (2008). Children living in areas with more street trees have lower prevalence of asthma. Journal of Epidemiology and Community Health 62(7), 647-649.
[11] VELARDE, M. D., FRY, G. AND TVEIT, M. (2007). Health effects of viewing landscapes - Landscape types in environmental psychology. Urban Forestry & Urban Greening 6(4), 199-212.
[12] Kuo, F. E., Bacaicoa, M. & Sullivan, W. C. Transforming inner-city landscapes: Trees, sense of safety, and preference. Environ. Behav. 30, 28–59 (1998).

views of trees feel happier, aiding increased performance[13]. Trees also help to provide a sense of place and community, and provide an educational resource through community orchards and the Forest Schools programme.

Trees stimulate the local economy The presence of well-cared for trees encourages shoppers to spend more time at a business district, and they will travel a greater distance to visit that center, research has shown. Further, shopping areas with trees are more likely to be ranked as being more comfortable and having better upkeep, friendlier staff, and higher quality products.

2 Southwark's Treescape

2.1 There are approximately 120,000 trees in Southwark excluding areas designated as woodland[14].

2.2 Southwark Council is responsible for the direct management, maintenance and care of over half (80,000) of the borough's tree population as follows:

Housing Estates 17,000
Parks & Open Spaces 44,000
Highways 16,000
Schools 3,000

2.3 In terms of geographical distribution, the northern part of Southwark is densely urbanised with less open space and fewer trees. In this area, the trees for which Southwark Council is responsible are concentrated along roadsides and on housing estates. The southern part of Southwark is more suburban and includes large open spaces, significant ancient woodland and large private gardens. The trees for which Southwark Council is responsible in this area are concentrated along roadsides and in parks and open spaces.

2.4 Trees not managed by Southwark include those managed by Transport for London, trees located within residential gardens and those on other private land.

2.5 There are over 400 species of tree found in Southwark, full details including tree distribution and canopy cover figures are shown in Appendix 1.

3 Policy

Policy framework

3.1 This policy document has been prepared in response to National, Regional and Local policy frameworks that necessitate the creation of borough-wide tree strategies and accentuate the importance of protecting, maintaining and enhancing trees and woodlands.

3.2 Regionally, the Mayor of London committed to making more than half of London green by 2050 in the 2018 London Environment Strategy. This includes ensuring that

[13] Kaplan, S., Kaplan, R. & Wendt, J. Rated preference and complexity for natural and urban visual material. Perception and Psychophysics 12, 354–356 (1972).

[14] A woodland is an area covered in trees, usually at low density, forming an open habitat, allowing sunlight to penetrate
between the trees and limited shade. Southwark has 74 hectares of designated woodland including Dulwich Upper Wood,
Sydenham Hill Woods, Russia Dock Woodland, One Tree Hill and parts of Peckham Rye, Nunhead Cemetery and Camberwell Cemetery.

there is not an overall loss of green cover through new development proposals, and increasing tree cover by 10% from current levels by 2050.

3.3 National government has recognised the vital role of trees in its 25 Year Environment Plan, where it recognises the importance of boosting the resilience of trees and creating new green spaces. In the strategy, the government committed to planting 1m urban trees and 11m additional trees across the country, and to the appointment of a national Tree Champion, who would help to drive a step change in tree planting

3.4 In 2012 The European Commission adopted an ambitious new strategy to halt the loss of biodiversity and ecosystem services in the EU by 2020. There are six main targets, and 20 actions to help Europe reach its goal. Some of the key measures include;

- Full implementation of EU nature legislation to protect biodiversity
- Better protection for ecosystems, and more use of green infrastructure
- More sustainable agriculture and forestry

3.5 Tree policies

Southwark's has adopted the following tree policies implemented in order to deliver its strategic aims and objectives.

The policies have been set out in the following sections:
Tree maintenance, removal and planting; Managing Tree Risk; Trees and built environment; Planning and development; Tree Management; Trees in Private Ownership; and Biodiversity.

(Please click on a single policy for quick reference – active table mechanism)

Tree maintenance, removal and planting

1. Tree pruning
2. Tree Removal
3. Tree planting
4. Programme of tree maintenance

Managing Tree Risk

5. Tree Risk Management Strategy
6. Emergency call out service
7. Dangerous trees on privately owned land

Trees and the built environment

8. Excavations and utilities
9. Managing trees and subsidence

Planning and development

10. Tree protection
11. Trees and development
12. Unauthorised works prosecution

Biodiversity

13. Encouraging biodiversity in Southwark
14. Pests and diseases
15. Woodland management
16. Veteran and ancient trees
17. Supporting partnerships

Tree maintenance, removal and planting

1. Tree pruning

Southwark will prune trees for the following reasons only: where there is a risk to public safety; to abate an actionable nuisance; to mitigate the risk of building subsidence; and for accordance with good arboricultural practice.

The Council has a proactive programme of inspections from which necessary remedial works are generated and carried out, supported by a 24 hour emergency service. In addition, requests are periodically made by residents for tree pruning which are managed by the Tree Section via the Customer Service Centre (CSC). In all of the above criteria the Council applies strict criteria for when pruning is deemed necessary.

To ensure an impartial and judicious service is provided to all of its residents the Southwark will only prune trees for the following reasons:

- For the purposes of public safety: to ensure statutory clearance over the highway, footway, cycle lanes and public rights of way.
- To abate an actionable nuisance: where trees come in to conflict with buildings and light structures.
- To mitigate the risk of building subsidence: where risk trees have been identified on shrinkable clay soil and been included in the Borough's Insurance Mitigation Pruning Programme.
- Where remedial works are advantageous to the tree or tree stock and are in accordance with good arboricultural practice.

To ensure clarity and manage customer expectations Southwark will highlight some of the reasons frequently used to justify pruning that are considered beyond its responsibility.

The Council periodically receives requests from residents to prune trees. With the aim of ensuring an impartial, reasonable and transparent service is provided to all of Southwark's residents, the Council will not prune trees in request to allay or resolve the following issues:

- Branches overhanging properties: residents have the right to exorcise their right under Common Law to prune back branches to their property boundary; all arisings must be disposed of at their own effort or expense; pruning must only be carried out following discussion with a Council arboriculturist and completed to the standard set out in BS3998:2010 Tree Work Recommendations.
- Where a tree is thought be overly large.
- Interference with satellite, TV or other media reception: there is no legal right to television reception and the Council (or any tree owner) has no legal obligation to remove or prune trees to improve reception; when positioning a new satellite receiver, residents are recommended to carefully consider existing trees and their potential for growth to avoid problems in the future.
- Branches and/or limbs in physical contact with telephone wires: telephone wires are plastic coated and faults on the line are very rarely caused by contact with branches; residents will be encouraged to contact their service provider to address any faults or interference experienced with their telephone phone line.

- Excessive leaf fall: this is a seasonal problem generally localised to a short period of the year. Residents are expected to clear any undesirable leaf litter falling on their properties themselves or at their expense; leaf litter on publically owned footways and highways will be addressed by the Borough's Street Cleansing contractors.

- Fruit fall: this is a seasonal problem generally localised to a short period of the year. Residents are expected to clear any undesirable fruit falling on their properties themselves or at their expense; fallen fruit on publically owned footways and highways will be addressed by the Borough's Street Cleansing contractors as notified.

- Problems associated with pollen.

- Excreta caused by insects or birds: honeydew (aphid excreta) and bird droppings are not sticky sap are not recognised in law as a 'legal nuisance'; hazards on the footway can be addressed by contacting Street Cleansing to notify them of the problem; measures to address the problems associated with honeydew can be made by residents by regular car washing, covering or parking in an alternative location.

- Obstruction of view: there are no rights associated with maintaining trees in accordance with maintaining views in British law

- Lack of light: there is no 'Right to light' (or shade) in British law.

2. Tree Removal

Trees will only be removed where there is a risk to public safety or damage to property or with the aim of good arboricultural practice.

Publically owned trees are a valuable resource in the context of the Southwark's tree stock. Therefore the determination will be to resist the removal of trees wherever possible. Southwark will not normally fell a healthy tree; however there are some circumstances where it is deemed necessary to remove trees:

- to address professional public safety concerns;
- to mitigate building subsidence;
- to abate an actionable nuisance;
- to reduce the risk of the spread of pests and disease;
- where the highway and/or footway condition determine retention unsustainable;
- where an approved planning application or essential development works requires tree removal
- in accordance with good arboricultural practice.

These decisions are carefully considered by Southwark's Arboricultural Officers following consultation with local residents and other stakeholders wherever possible.

It is important that the public, elected Members, stakeholders and colleagues sufficient notice of the intention to remove trees. Whether felling is to be undertaken as part of the annual felling programme or a monthly works programme, email notification must be sent at least 10 days in advance of the commencement of works. This will be followed up by the attachment of a Felling Notice to individual trees with a 10 days notice

Any objections or queries associated with the removal of trees should be answered prior to the commencement of the operation. However it should be understood that in some circumstances trees must be removed at short notice in accordance with their condition and associated public safety concerns. In such cases retrospective communications will be sent to Ward Members and stakeholders.

The tree pit will be made safe with a temporary backfill material and capped with a bituminous surface until the next planting season, or the Highway Maintenance Team will be contacted and asked to undertake a permanent reinstatement of the highway.

3. Tree planting

Where trees have been felled the tree section will endeavour to provide a replacement tree as close to the location of the felled tree as practicable during the next planting season. A sign will be placed in the original location of the felled tree detailing that the tree will be replaced in the same location or a nearby location.

The Council will seek to plant at least one tree for every tree it removes.

Following proactive or reactive inspections it is sometimes necessary to remove trees. In such circumstances the Council will ensure a replacement tree is planted if the location is continued to be deemed viable in accordance with good arboricultural practice.

When the decision to remove a tree is made, a request on the Southwark's asset management data base will be made for a replacement tree of suitable species for the location. Subject to resources, the replacement tree will be planted within the following two planting seasons.

Subject to resources, the Council will encourage initiatives in support of additional planting from internal and external sources of funding on all of its sites as appropriate and will implement programmes of planting aimed at increasing Southwark's publically owned tree stock.

The Council will provide advice and information to schemes or groups seeking to increase tree cover within the borough whether on public or privately owned sites.

The Council will continue to manage the Adopt a Tree and Memorial Trees initiatives funded by individuals and groups.

In support of the Councils replacement tree scheme (The Adopt a Tree scheme and Memorial Tree initiative will continue to be managed by Southwark on a cost neutral basis, delivering value for money to local residents seeking additional tree planting.

The Council will continue to ensure that appropriate regard is given to the relationship between species selection and location (Right Tree, Right Place).

The objective of all tree planting programmes is to ensure future tree planting in the borough is appropriate, sustainable, considered and permits the long term survival of those trees planted so that they fulfil their growth potential and make the maximum contribution possible without causing many of the problems traditionally associated with planting trees in urban areas.

4. Programme of tree maintenance

The Council will continue to issue a proactive programme of tree maintenance linked to the tree inspection programme (ad hoc works will be issued appropriate to risk alongside the programme).

Following inspection as set out in Policy 5 the Council will order all necessary remedial works for pruning and felling in accordance with good arboricultural practice (Policies 1 and 2).

All works issued to service providers are expected to be completed within the timescales set out in the contract. Failures meet designated timescales for works completion may be subject to the rectification and default procedures as per contract specification.

Managing Tree Risk

5. Tree Risk Management Strategy

The Tree Risk Management Strategy makes clear all legal responsibilities, assesses how Southwark operates to mitigate the risk which trees present, and sets out detailed associated procedures and methodologies (see Appendix 2 – Southwark Council Tree Risk Management Strategy).

6. Emergency call out service

The Council will continue to provide a 24 hour call out service in order to respond to emergency situations on Borough managed land and highways.

The Council has a duty under The Highways Act 1980 to ensure that all of the roads within the Borough are free from hazards at all times. In order fulfil this duty the Council will continue to ensure a 24 hour emergency call out service is maintained to clear fallen trees from the highway and public land. It is expected that all call outs are responded to within 1hour.

In the prospect of an extreme weather event the Council will ensure that adequate resources are targeted to processing multiple emergencies and managing post storm clear up operations (see Tree Risk Management Strategy Appendix 1: Policy Framework).

7. Dangerous trees on privately owned land

The Council may serve notice on the owner of a private tree if it is considered to present an unreasonable risk to the public. If remedial work is not satisfactorily undertaken, the Council can undertake the necessary work to mitigate the risk and recover the costs from the tree owner.

Occasionally there may be reasons why owners do not make dangerous trees safe, e.g. owners may not be traceable, or refuse, or are unable to pay. As a last resort, the local authority has powers under the Local Government (Miscellaneous Provisions) Act 1976 section 23 & 24 Dangerous Trees and the Highways Act 1980 section 154, to take the minimum action necessary to remove immediate danger on private land. However, these powers are discretionary; the authority will only guarantee action if a tree in private ownership is likely to impact on the highway or Council owned land or property. All other scenarios will be assessed on a case by case basis (see LBS Tree Risk Management Strategy (appendix 2) appendix 4, LBS Procedure for tree risk mitigation on privately owned trees under the Local Government (Miscellaneous Provisions) Act 1976) and Highways Act 1980.

When works have been carried out, the Council can recoup the costs of the works plus an administration fee. If the owner is untraceable or un-contactable a land charge will be entered against the property for future payment.

Trees and the built environment

8. Excavations and utilities

When undertaking excavation works near to street trees all Council operatives and private contractors will be required to adhere to the guidelines as set out in the revised National Joint Utility Guidelines: Guidelines for the Planning, Installation and Maintenance of Utility Apparatus in Proximity to Trees (NJUG 4, 2007, unless otherwise formally agreed with the Tree Section.

It is recognised that on-going maintenance of the highway, service routes and street furniture is essential to ensuring that the Borough's transport and infrastructure network continues to operate effectively. This brings considerable potential disturbance to the Borough's trees as work often requires excavation and construction within the root zone of trees. Therefore it is essential that when undertaking excavation works near to street trees all Council operatives

and private contractors will be required to adhere to the guidelines as set out in the revised National Joint Utility Guidelines.

9. Managing trees and subsidence

Southwark will continue to manage its tree stock to minimise the risk of tree-related subsidence, whilst maintaining a healthy and sustainable tree stock. Location and species for new tree planting will be selected to minimise the risk of future tree-related subsidence. Southwark will seek to continue to retain trees on shrinkable clay subsoil, where sustainable, in order to maintain the value of the amenity. The Council will continue to manage a robust programme of pruning in order to mitigate subsidence damage to buildings: regrowth on all risk trees will be removed on a 2 yearly cycle in order to manage water demand.

Southwark will manage and process claims in accordance with the principles of the LTOA's (London Tree Officers Association) Risk Limitation Strategy and the Joint Mitigation Protocol (of which it is a signatory) by managing its tree stock with the aim of reducing the potential for building damage whilst maintaining a healthy and sustainable tree stock:

- Local authorities instigate a regime of cyclical pruning of Council tree stock in areas predisposed to building movement where this is appropriate.
- Local authorities provide dedicated resources for dealing with subsidence generated claims directed at Council owned trees.
- Local authorities instigate a regime of selective removal and replacement of street tree stock in areas predisposed to building movement where this is appropriate.
- Local authorities provide dedicated resources for dealing with subsidence generated Conservation Area notifications and Tree Preservation Order applications.
- Local authorities review all existing unsettled claims providing dedicated resources to challenge those unwarranted claims based on poorly investigated and inaccurate evidence or where in the case of preserved trees the Town & Country Planning (Trees) Regulations 1999 can provide relief from the claim.

Planning and development

10. Tree protection

The Council will seek to ensure, through the use of current Tree Protection Order (TPO) and Conservation Area legislation, that trees of particular amenity value are protected.
In accordance with the Town and Country Planning legislation the council will seek to protect and preserve trees of high amenity value through the careful consideration of TPO and Conservation area applications.

Tree Preservation Orders:
Anyone wishing to remove or undertake pruning works under a TPO is required by law to make a formal application to the borough using application form (downloaded online or requested from the Planning Department). Care should be taken in completing the form as applications that are incomplete or lacking sufficient information to determine the proposal will not be registered. Once the application has been registered it will be assessed and a decision notice will be issued within 8 weeks, detailing the outcome of the process.
Tree owners carrying out permitted development to their property adjacent to protected trees may also require permission before starting work, if the development is likely to lead to the severing of roots or branches to facilitate the build.

Conservation Areas:
Any person wishing to remove or undertake works to a tree within a Conservation Area is required to give 6 weeks notification to the Council using an application form (this can be

downloaded online or requested from the Planning Department). The Council will register, assess and respond to all notifications with 6 weeks.
The Council will respond in one of three ways;

- Allow the proposed works
- Negotiate and agree alternative works
- Serve a TPO to prevent the proposed works

Anyone not receiving a response within the six week period is advised to contact the Planning Department to ensure they operate within the law.

The Council will carry out a survey of its TPOs and review and update them accordingly and will maintain an electronic record of the details; many of the borough's TPO records are old and in need of updating. Some of the trees protected by TPO have died, whilst other trees have grown and are now in need of protection. The orders are largely recorded in paper files and there is a desire to update this to an electronic system which can be accessed by the public on-line.

11. Trees and development

Planning applications for new development will require compliance with development management policy which seeks to retain existing trees within a development site and promote the planting of new trees wherever possible.

To ensure that due consideration and protection is given to trees worthy of retention, the Council will require all development applications that affect trees, to provide the following information (to the standard detailed in BS 5837:2012 "Trees in relation to design, demolition and construction):

Pre-application stage;

- Tree survey
- Tree retention/removal plan
- Consideration for protected wildlife species

Planning Application stage;

- Tree survey
- Arboricultural impact assessment
- Tree retention/removal plan, detailing retained trees and their Root Protection Areas (RPAs)
- Any proposed level changes
- Hard and soft landscape design plans (replacement tree planting)

Reserved matters/planning conditions;

- Arboricultural method statement
- Details of all special engineering within RPAs
- Details of utility apparatus and installation
- Schedule of works to retained trees
- Arboricultural site monitoring schedule*
- Post construction remedial works

*The Council, aside from making its own spot checks on development sites, will impose planning conditions to ensure that all proposed tree protection measures are carried out and maintained throughout each stage of the development as recommended in BS5837: "Trees in relation to design, demolition and construction".

In accordance with policy 7.21 of the London Plan in respect to trees and woodlands, the Council agrees that "any loss as a result of development should be replaced following the principle of 'right place, right tree'. Wherever appropriate the planting of additional trees should be included in new developments, particularly large-canopied species" (GLA Jul 2011, p.235). To encourage replacement or new planting on development sites the Council will apply these principles:

- All development sites must look to incorporate tree planting as part of the planning application.
- Where trees have been removed to facilitate the development, suitable levels of replanting will be required.
- Where the provision of tree planting on a development site conflicts with other trees.
- Council policies or where suitable levels of replacement tree planting cannot be found on site, the Council will seek funding for alternative tree planting in the locality.

12. Unauthorised works prosecution

The Council will prosecute anyone found to be damaging or pruning its trees without permission or disposing of tree waste illegally, and where appropriate apply the maximum penalty.

The Council will use the Capital Asset Valuation of Amenity Trees (CAVAT) system to value its trees and use this information to assist in the management of its tree stock. Any private individual or external organisation that undertakes actions to damage or remove Council owned or protected tree(s) will be pursued for compensation for the full amenity value of the tree as calculated by CAVAT.

Biodiversity

13. Encouraging biodiversity in Southwark

The Council will seek to maintain a diverse range of species and age structure and will promote planting of native species, of local provenance where possible, in particular where appropriate to the park, character and the relevant park management plan.

In order to maximise biodiversity the Council understands the importance of encouraging a varied age structure in its tree stock. This can be achieved through planting, thinning, coppicing, glade and ride creation retaining over-mature and veteran trees and selecting specimens for succession.

Over-mature trees and those with dead wood and cavities provide valuable wildlife habitats particularly for bats, birds and invertebrates. The borough's woodlands are also particularly important, containing a substantial number of veteran trees which support a large number of insects, many of which are rare. It is important that veteran and ancient trees are retained so long as they do not present an unreasonable risk to public safety.

14. Pests and diseases

The Council will ensure adequate resources are available to control and contain the outbreak of known new pests and diseases, and continue to ensure proportionate resources are dedicated to the control of existing pests and diseases.

Over the last few decades the UK has experienced increasing threats to plant biosecurity as increased global trade acts as a pathway for the arrival of new organisms, with impacts potentially exacerbated by climate change and new pathways of introduction into the EU. This has been highlighted by the increasing number of plant disease and pathogen outbreaks, most notably in relation to trees.

The Council will prioritise adequate resources in a timely fashion to deal with such threats, especially when these are related to the health of the tree stock and may also present serious public health issues. Southwark will continue liaise closely with the Forestry Commission and London Tree Officers Association (LTOA) on issues of biosecurity.

15. Woodland management

The Council will develop Woodland Management Plans for each of its woodlands and will encourage the development of Woodland Management Plans for privately owned woodlands and those owned by other public bodies.

16. Veteran and ancient trees

The Council will promote a programme of recording and protecting veteran and ancient trees in the Borough and instigating a programme of management and succession planting in line with the government guidance (Ancient woodland, ancient trees and veteran trees: protecting them from development).

Many of the Council's veteran and ancient trees are already recorded and protected by Tree Preservation Order, however Southwark acknowledges that the specific management practices required for this highly valuable resource are best undertaken under singular focused initiative. Therefore the Council will launch a programme of recording, mapping and the production of management plans for all of Southwark's veteran and ancient trees, whether on public or private land. The resources available for this will be limited, however it is expected that a significant level of volunteer engagement will be sought in order achieve its aims.

17. Supporting partnerships

Southwark will continue to provide arboricultural support and advice to partnership groups throughout the Borough.

Partnership Groups make a highly valued contribution to Southwark's environment. The Council will continue to support our third sector partners, Friends of Parks and other stakeholder groups in providing support and arboricultural advice.

Trees have become increasingly important as a learning resource for children. This is reflected in the growing numbers of schools that have signed up to the Forest Schools programme. Southwark will provide arboricultural advice for schools hoping to utilise their outdoor space as a learning resource.

4 Review

This policy document is intended to be reviewed and updated annually following formal adoption.

Policy Number	Version	Author	Doc No.	PDF No.	Date Published	Review Due	Review Team
	1	JF				December 2020	
	2					December 2021	

Appendix 1

Southwark tree species composition and distribution

Southwark Council is responsible for the management and maintenance of approximately 80,000 trees and over 70 hectares of woodland.

Species

The diversity of tree species in Southwark is staggering with over four hundred different species and cultivars recorded across the borough (see table 5).

The most commonly encountered genus across Southwark councils' urban forest is Acer with Cladrastis being the least commonly planted genus within the borough.

The top ten most commonly found council owned tree genus within Southwark are listed in the table below.

Tree Species	Number Of Trees
Acer	8118
Populus	1504
Betula	2548
Sorbus	1719
Quercus	2305
Platanus	6072
Prunus	6366
Tilia	4335
Fraxinus	4180
Crataegus	1774

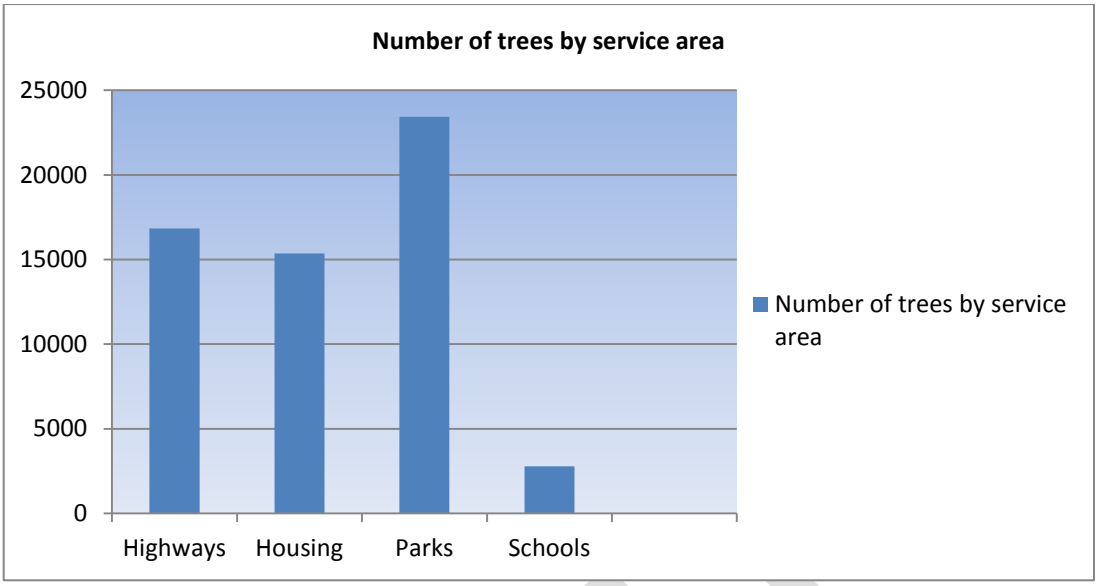
Table 1 – Top 10 most commonly found tree species in Southwark.

Composition

Southwark Councils tree section manages trees across four separate service areas; these consist of Highways, Parks, Housing and Schools.
The number of trees across the four service areas is presented in the graph and table below.

Site type	Number of trees by service area
Highways	16837
Housing	15363
Parks	23435
Schools	2786

Table 2 – Number of trees by service area.



Graph 1 – Number of trees by service area

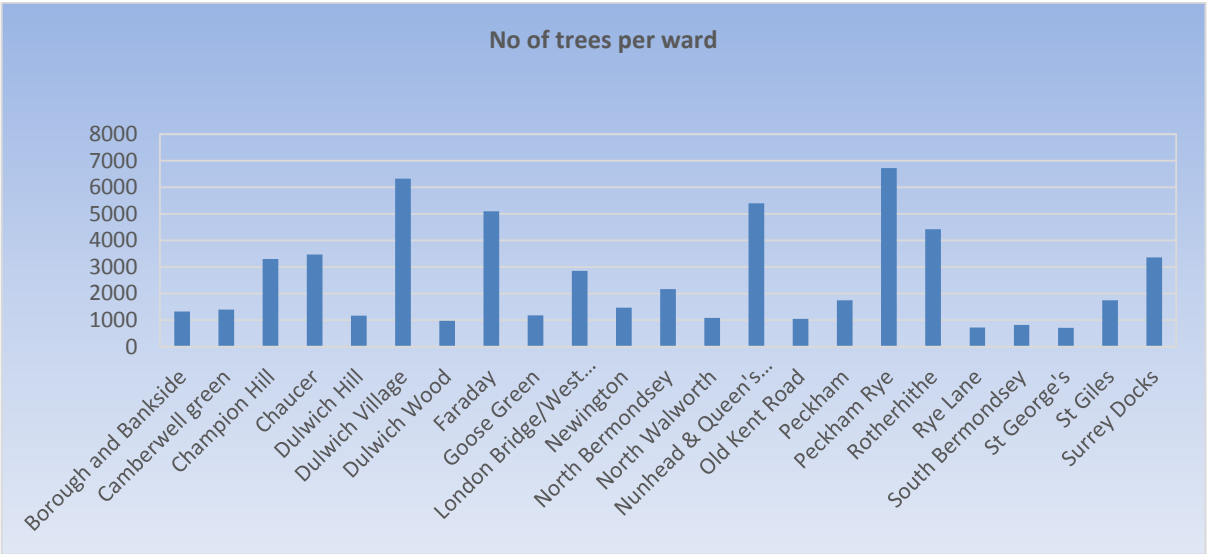
This data has been analysed further and separated into the information presented below to show the tree populations across each ward within Southwark.

The wards that have the largest tree populations are representative of the land use types in those areas, with large parks and woodlands being a dominant feature in that of Nunhead and Queens Road, Peckham Rye and Dulwich Hill with sites such as Nunhead Cemetery and Peckham Rye Park contributing significantly to these numbers.

Ward	No of trees per ward
St George's	703
Rye Lane	715
South Bermondsey	814
Dulwich Wood	971
Old Kent Road	1044
North Walworth	1084
Dulwich Hill	1163
Goose Green	1175
Borough and Bankside	1322
Camberwell green	1391
Newington	1468
Peckham	1740
St Giles	1747
North Bermondsey	2163
London Bridge/West Bermondsey	2857
Champion Hill	3295
Surrey Docks	3353
Chaucer	3472
Rotherhithe	4419
Faraday	5093

Nunhead & Queen's Road	5398
Dulwich Village	6318
Peckham Rye	6716

Table 3 – Number of trees per ward

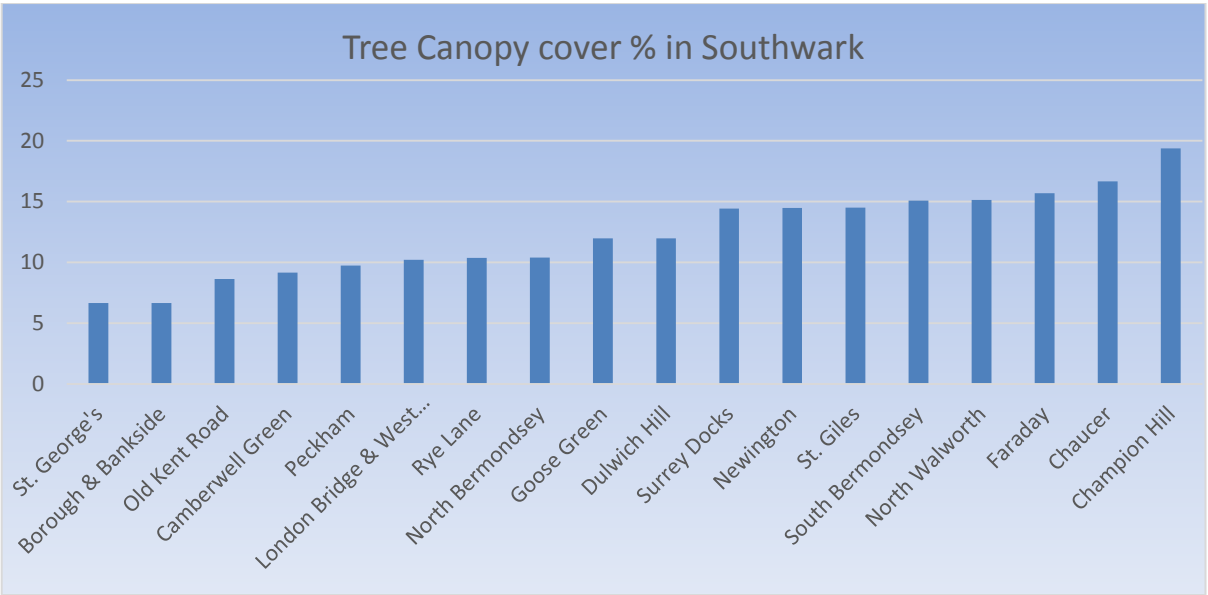


Graph 2 – Number of trees per ward

Canopy cover

An exercise undertaken by Curio Canopy and the Greater London Authority in 2016 to assess tree canopy cover within Greater London identified the following wards within Southwark with less than 20% tree canopy cover.

Since the exercise was undertaken the ward boundaries within Southwark have changed, however the canopy cover percentages across the borough have not significantly changed and the data can still be considered reliable. Serious consideration and prioritisation should therefore be given to increasing canopy cover within those wards.



Graph 3 – Tree canopy cover percentage by ward (Curio et al,2016)

Ward	Tree Canopy cover % in Southwark
Borough & Bankside	6.65
St. George's	6.65
Old Kent Road	8.63
Camberwell Green	9.16
Peckham	9.74
London Bridge & West Bermondsey	10.21
Rye Lane	10.36
North Bermondsey	10.39
Dulwich Hill	11.97
Goose Green	11.97
Surrey Docks	14.42
Newington	14.48
St. Giles	14.5
South Bermondsey	15.09
North Walworth	15.14
Faraday	15.69
Chaucer	16.66
Champion Hill	19.39

Table 4 – Tree canopy cover % in Southwark (Curio et al 2016)

Tree genus and species
Abies alba
Abies cephalonica
Abies grandis
Abies lasiocarpa
Abies nordmanniana
Acacia dealbata

Acacia pravissima
Acer campestre
Acer campestre 'Elsrijk'
Acer capillipes
Acer cappadocicum
Acer davidii
Acer ginnala
Acer griseum
Acer japonicum
Acer monspessulanum
Acer negundo
Acer palmatum
Acer platanoides
Acer pseudoplatanus
Acer rubrum
Acer saccharinum
Acer saccharum
Aesculus flava
Aesculus hippocastanum
Aesculus indica
Aesculus pavia
Aesculus X carnea
Ailanthus altissima
Albizia julibrissin
Alnus cordata
Alnus glutinosa
Alnus incana
Alnus rubra
Alnus viridis
Amelanchier Arborea Robin Hill
Amelanchier canadensis
Amelanchier laevis
Amelanchier lamarckii
Araucaria araucana
Arbutus unedo
Azara microphylla
Betula albosinensis -
Betula ermanii
Betula jacquemontii
Betula lenta
Betula nigra
Betula papyrifera
Betula pendula
Betula pubescens

Buxus sempervirens
Callistemon laevis
Carpinus betulus
Carya alba
Carya cordiformis
Castanea sativa
Catalpa bignonioides
Catalpa bignonioides Aurea
Catalpa speciosa
Ceanothus species
Cedrus atlantica
Cedrus atlantica 'Glauca'
Cedrus deodara
Cedrus libani
Celtis australis
Celtis occidentalis
Cercidiphyllum japonicum
Cercis canadensis
Cercis siliquastrum
Chamaecyparis lawsoniana
Chamaecyparis nootkatensis
Chamaecyparis obtusa
Chamaecyparis spp
Cladastris lutea
Clerodendron trichotomum
Cordyline australis
Cornus controversa
Cornus kousa
Cornus mas
Cornus sanguinea
Corylus avellana
Corylus colurna
Cotoneaster frigidus
Cotoneaster salicifolius
Crataegus 'Pauls Scarlet'
Crataegus crus-galli
Crataegus laevigata
Crataegus monogyna
Crataegus oxycantha
Crataegus X grignonensis
Crataegus X lavallei
Crataegus X prunifolia
Cupressus glabra
Cupressus lusitanica

Cupressus macrocarpa
Cydonia oblonga
Davidia involucrata
Eriobotrya japonica
Eucalyptus debeuzevillei
Eucalyptus gunnii
Eucalyptus niphophila
Euodia hupehensis
Fagus sylvatica
Ficus carica
Fraxinus americana
Fraxinus angustifolia 'pendula
Fraxinus excelsior
Fraxinus ornus
Fraxinus oxycarpa 'Raywood'
Fraxinus Pennsylvanica
Ginkgo biloba
Gleditsia triacanthos
Hamamelis spp
Hippophae rhamnoides
Ilex aquifolium
Jubaea chilensis
Juglans nigra
Juglans regia
Juniperus communis
Juniperus spp
Koelreuteria paniculata
Laburnocytisus adamii
Laburnum anagyroides
Laburnum X watereri 'Vossii'
Lagerstroemia indica Rosea
Larix decidua
Laurus nobilis
Ligustrum chinensis
Ligustrum japonicum
Ligustrum lucidum
Ligustrum ovalifolium
Ligustrum vulgare
Liquidambar styraciflua
Liriodendron tulipifera
Luma apiculata
Magnolia Galaxy
Magnolia Grandiflora
Magnolia kobus

Magnolia x loebneri 'Merrill'
Magnolia x soulangiana
Malus 'Golden hornet'
Malus 'John Downie'
Malus 'Profusion'
Malus baccata (Fastigiate Sibe
Malus domestica
Malus Evereste
Malus floribunda
Malus hupehensis
Malus Prunifolia 'Pendula'
Malus Rudolph
Malus sylvestris
Malus transitoria
Malus Tschonoskii
Malus X purpurea
Mespilus germanica
Metasequoia glyptostroboides
Michelia doltsopa
Morus alba
Morus nigra
Nothofagus antarctica
Olea europaea
Ostrya carpinifolia-
Parrotia persica
Paulownia tomentosa
Photinia fraserii
Picea abies
Picea orientalis
Picea pungens 'Glauca'
Picea pungens Hoopseii
Picea sitchensis
Pinus mugo
Pinus nigra
Pinus Nigra var. Maritima
Pinus pinaster
Pinus pinea
Pinus radiata
Pinus strobus
Pinus sylvestris
Pinus wallichiana
Pinus X holfordiana
Platanus orientalis
Platanus X hispanica

Populus alba
Populus balsamifera
Populus candicans 'Aurora'
Populus nigra
Populus nigra 'Italica'
Populus regenerata
Populus serotina
Populus tremula
Prunus 'Accolade'
Prunus 'Amanogawa'
Prunus 'Ichiyo'
Prunus 'Pandora'
Prunus 'Pink Perfection'
Prunus 'Pink Shell'
Prunus 'Sunset boulevard' (Che
Prunus 'Tai Haku'
Prunus 'Umineko'
Prunus avium
Prunus avium 'Plena'
Prunus avium Fastigiata
Prunus cerasifera
Prunus cerasifera 'Nigra'
Prunus cerasifera 'Pissardii'
Prunus domestica
Prunus domestica insititia
Prunus dulcis
Prunus incisa
Prunus kanzan
Prunus laur. magnolifolia
Prunus laurocerasus
Prunus laurocerasus 'Otto luyk
Prunus lusitanica
Prunus maackii
Prunus maackii 'Ambar Queen'
Prunus padus
Prunus padus 'Albertii'
Prunus padus 'Watereri'
Prunus sargentii
Prunus sargentii 'Rancho'
Prunus serotina
Prunus serrula
Prunus Serrula Tibetica
Prunus Serrulata
Prunus serrulata 'Autumn Glory

Prunus serrulata 'Kiku-Shidare
Prunus serrulata 'Schmitii
Prunus serrulata 'Sunset Boule
Prunus spinosa
Prunus subhirtella
Prunus subhirtella 'Asccendens
Prunus subhirtella 'Autumnalis
Prunus subhirtella 'Pendula Pl
Prunus sunset Boulvevard
Prunus tai Haku
Prunus Virginiana `Schubert`
Prunus X hillieri 'Spire'
Prunus X schmittii
Prunus X yedoensis
Prunus yedoensis
Pseudopanax crassifolius
Pterocarya fraxinifolia
Pyrus calleryana 'Chanticleer'
Pyrus calleryana 'Redspire'
Pyrus communis
Pyrus salicifolia
Quercus acutissima
Quercus castaneifolia
Quercus cerris
Quercus coccinea
Quercus frainetto
Quercus hispanica 'Lucombeana'
Quercus ilex
Quercus imbricaria
Quercus muehlenbergii
Quercus palustris
Quercus petraea
Quercus phellos
Quercus robur
Quercus robur 'Fastigiata'
Quercus rubra
Quercus suber
Quercus velutina
Quercus X ludoviciana
Rhamnus cathartica
Rhus typhina
Robinia pseudoacacia
Salix alba
Salix alba 'Tristis'

Salix babylonica
Salix caprea
Salix cinerea
Salix fragilis
Salix matsudana 'Tortuosa'
Salix pentandra
Salix X chrysocoma
Sambucus nigra
Sequoia sempervirens
Sequoiadendron giganteum
Sophora japonica
Sorbus 'Joseph Rock'
Sorbus americana
Sorbus aria
Sorbus aucuparia
Sorbus cashmiriana
Sorbus domestica
Sorbus hupehensis
Sorbus intermedia
Sorbus latifolia
Sorbus torminalis
Sorbus vilmorinii
Sorbus X hybrida
Sorbus X thuringiaca
Styrax japonica
Syringa vulgaris
Tamarix aestivalis
Tamarix angelica
Tamarix pentandra
Tamarix tetandra
Taxodium distichum
Taxus baccata
Thuja Orientalis Aurea Nana
Thuja plicata
Tilia americana
Tilia cordata
Tilia henryana
Tilia mongolica
Tilia oliveri
Tilia Petiolaris
Tilia platyphyllos
Tilia tomentosa
Tilia X euchlora
Tilia X europaea

Trachycarpus fortunei
Trachycarpus Fortuneii
Ulmus 'New horizon'
Ulmus americana Princeton
Ulmus carpinifolia
Ulmus carpinifolia 'Sarniensis
Ulmus coritana
Ulmus glabra
Ulmus glabra Camperdownii
Ulmus Lobel
Ulmus procera
Ulmus sophora 'Autumn Gold'
Ulmus X Hollandica
Wisteria sinensis
Zelkova carpinifolia
Zelkova serrata
Zizyphus guiggiolo

Appendix 2

Policy context

The following table of European, National, Regional and Local policies, regulations, strategies, plans and frameworks provides the contextual framework for Southwark's Tree Management Policy document.

Policy, Regulation, Strategy, Plan, Framework	Summary of objectives and targets
European	
EU Biodiversity Strategy to 2020 (2012)	• The European Commission adopted an ambitious new strategy to halt the loss of biodiversity and ecosystem services in the EU by 2020. There are six main targets, and 20 actions to help Europe reach its goal. Biodiversity loss is an enormous challenge in the EU, with around one in four species currently threatened with extinction and 88% of fish stocks over-exploited or significantly depleted. • The six targets cover: • Full implementation of EU nature legislation to protect biodiversity • Better protection for ecosystems, and more use of green infrastructure • More sustainable agriculture and forestry • Better management of fish stocks • Tighter controls on invasive alien species • A bigger EU contribution to averting global biodiversity loss • The new Biodiversity Strategy follows on from the 2006 Biodiversity Action Plan.
EU Biodiversity Action Plan (2006) and 2010 Assessment	The EU Biodiversity Action Plan addresses the challenge of integrating biodiversity concerns into other policy sectors in a unified way. It specifies a comprehensive plan of priority actions and outlines the responsibility of community institutions and Member Sates in relation to each. It also contains indicators to monitor progress and a timetable for evaluations. The European Commission has undertaken to provide annual reporting on progress in delivery of the Biodiversity Action Plan. A baseline report was prepared in 2010 to take stock of the 2006 Biodiversity Action Plan and assess the impact it has had on Europe's biodiversity. The report produced by the European Environment Agency, provides the latest facts and figures on the state and trends of different biodiversity and ecosystems components in the EU.
National	

25 Year Environment Plan (2018)	National government has recognised the vital role of trees in its 25 Year Environment Plan, where it recognises the importance of boosting the resilience of trees and creating new green spaces. In the strategy, the government committed to planting 1m urban trees and 11m additional trees across the country, and to the appointment of a national Tree Champion, who would help to drive a step change in tree planting
Town and Country Planning Act (1990) & The Town and Country Planning (Tree Preservation) (England) Regulations 2012	The Town and Country Planning Act 1990 is an act of the British Parliament regulating the development of land in England and Wales Local planning authorities protect trees in the interests of amenity by making Tree Preservation Orders (TPOs). Provisions are spread across primary and various secondary legislation and different rules apply depending on when the TPO is made.
Occupiers Liability Act (1957 and 1984)	The Act places a legal Duty of Care on landowners and occupiers responsible for trees, to take reasonable management measures to avoid foreseeable injury or harm. For major landholders, such as local authorities, this duty can be discharged by production and adherence to a detailed management policy such as this document.
Highways Act (1980)	• Under Section 96 of the Act, the Highway Authority is entitled to plant and maintain shrubs within verges using public sector funding. They may also erect fences and guards as a means of tree protection. • Section 142 of the Act gives power to the Highway Authority to issue licenses for the planting and maintenance of trees and shrubs by a resident in a property which adjoins the highway. • Section 154 of the Act entitles the Highway Authority to serve notice on any owner or occupier whose tree, hedge or shrub is overhanging, and compromising the safety of a publically accessible area, to carry out remedial works within 14 days. If the owner or occupier fails to comply with the notice, the Highways Authority is entitled to carry out the work and recover reasonable costs from the owner or occupier.
The Wildlife and Countryside act 1981, as amended	Consolidates and amends existing national legislation to implement the Convention on the Conservation of

	European Wildlife and Natural Habitats (Bern Convention) and Council Directive 79/409/EEC on the conservation of wild birds (Birds Directive) in Great Britain (NB Council Directive 79/409/EEC has now been replaced by Directive 2009/147/EC of the European Parliament and of the Council of 30 November 2009 on the conservation of wild birds (codified version)).
National Planning Policy Framework (NPPF) (2018)	The Government has produced a simple national planning policy framework setting out their priorities for the planning system in England in a single, concise document covering all major forms of development proposals handled by local authorities. The NPPF sets out the Government's planning policies for England and how these are expected to be applied. It sets out the Government's requirements for the planning system only to the extent that it is relevant, proportionate and necessary to do so. It provides a framework within which local people and their accountable councils can produce their own distinctive local and neighbourhood plans, which reflect the needs and priorities of their communities. Under the title 'Conserving and enhancing the natural environment' it advocates that the planning system should contribute to and enhance the natural and local environment by: • protecting and enhancing valued landscapes, geological conservation interests and soils • recognising the wider benefits of ecosystem services • minimising impacts on biodiversity and providing net gains in biodiversity where possible, contributing to the Government's commitment to halt the overall decline in biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures • preventing both new and existing development from contributing to or being put at unacceptable risk from, or being adversely affected by unacceptable levels of soil, air, water or noise pollution or land instability • remediating and mitigating despoiled, degraded, derelict, contaminated and unstable land, where appropriate The same section also supports the view that when determining planning applications, local planning authorities should aim to conserve and enhance biodiversity by applying a list of principles, the most relevant one to trees being: "Planning permission should be refused for development resulting in the loss or deterioration of irreplaceable habitats, including ancient woodland and

	the loss of aged or veteran trees found outside ancient woodland, unless the need for, and benefits of, the development in that location clearly outweigh the loss”
Biodiversity – The UK Action Plan (1994)	The Action Plan is the UK Government's response to the Convention on Biological Diversity (CBD) signed in 1992. It describes the UK's biological resources and commits a detailed plan for the protection of these resources. The first lists of Priority Species and Habitats were published by Government in 1995 as part of the UK Biodiversity Action Plan (UK BAP). They included over 300 species of which 11 were butterflies and 53 were moths.
Regional	
London Plan (2016)	The London Plan is the overall strategic plan for London, and it sets out a fully integrated economic, environmental, transport and social framework for the development of the capital to 2036. It forms part of the development plan for Greater London. London boroughs’ local plans need to be in general conformity with the London Plan, and its policies guide decisions on planning applications by councils and the Mayor. The plan outlines the overarching need for green infrastructure within the city. It recognises the benefits of trees and sets targets for tree planting over the next ten years, with an addition of two million trees by 2025. The manifesto committed to an increase in canopy cover from 20% to 25% by 2025 across London. The main aim of these targets was to mitigate for and adapt to climate change. The plan states that trees and woodlands should be protected, maintained and enhanced. It advises against removal of street trees.
London Environment Strategy (2018)	The Mayor of London committed to making more than half of London green by 2050 in the 2018 London Environment Strategy. This includes ensuring that there is not an overall loss of green cover through new development proposals, and increasing tree cover by 10% from current levels by 2050.
A Manifesto for Public Open Space: London’s Great Outdoors (2009)	London's Great Outdoors recognises that investment in public space enhances the look and feel of the city, making it a more healthy and pleasant place for residents and visitors and an environment in which businesses can thrive. It contributes to maintaining and improving London's image as the world’s most green and liveable big city and highlights London's offer as a city that can sustain economic growth. Open Spaces

	Strategies: Best Practice Guidance (2008) This document provides guidance on how to create an open space strategy. Drawing on the lessons learnt from 5 years of CABE Space strategic enabling support with local authorities across England, it updates earlier CABE Space guidance, (Green space strategies: A good practice guide, 2004), and combines this with an update of the guidance for London, (Mayor's guide to preparing open space strategies; Best practice guidance of the London Plan, 2004), to provide one comprehensive guide for England.
Connecting with London's Nature. The Mayor's Biodiversity Strategy (2002)	The document details the Mayor's vision for protecting and conserving London's natural open spaces. It seeks to ensure that there is no overall loss of wildlife habitats in London, and that open spaces are created and made accessible, so that all Londoners are within walking distance of a quality natural space. The strategy is an important step in establishing a London-wide framework for maintaining London's diversity of wildlife.
Preparing Borough Tree and Woodland Strategies SPG (2013)	The Preparing Borough Tree and Woodland Strategies Supplementary Planning Guidance, a joint publication with the Forestry Commission, has been published. It sets out an approach to trees and woodland that: • Covers the audit, protection and management of trees and woodland in line with Policy 7.21 of the London Plan • Highlights the asset value of trees and woodland, both in financial terms and the broad range of economic and environmental benefits they provide • Considers all the trees in a borough as a single unified resource – an 'urban forest' • Extends the concept of an 'urban forest' across boundaries so that the cumulative benefits of trees to Londoners can be enhanced • Takes a step by step approach to the management of trees and woodland.
All London Green Grid SPG 2012	The SPG aims to promote the concept of green infrastructure, and increase its delivery by boroughs, developers, and communities, by describing and advocating an approach to the design and management of green and open spaces to deliver hitherto unrealised benefits. These benefits include sustainable travel, flood management, healthy living, and creating distinctive destinations; and the economic and social uplift these support.
Local	

Southwark Open Space Strategy (2013) and evidence base (2013)	This report provides the evidence base setting out the current position with regard to the provision of open spaces in Southwark; This includes an updated audit of all the existing protected open spaces. The strategy sets out a number of recommendations on improving the quality of the existing open spaces and makes site specific recommendations for the different sub-areas of the borough.
Southwark Biodiversity Action Plan (2013-2019) and evidence base	A new Biodiversity Action Plan (BAP) has been developed and is in the process of being adopted by the Council. The BAP has been developed by the Southwark Biodiversity Partnership in accordance with national, regional and local legislation and policies. The plans will run from 2012 to 2018. This plan provides information and guidance on protecting, managing and promoting key wildlife habitats and species within London.

Appendix 3

Tree planting and site selection

New and replacement tree planting is essential to ensure the sustainable long-term management of Southwark's urban forest and the continued benefits that trees provide such as urban cooling and the filtration of particulate pollutants and reductions in surface water run off.

The aspiration over the next ten years is to increase canopy cover across Southwark, specifically targeting wards that have less than 20% canopy cover that are identified in table 1, roadside locations with high concentrations of NO2 as identified in the London atmospheric emissions Inventory air quality focus areas map shown in figure 1 and combat urban warming and the urban heat island effect by planting in targeted areas that are identified as having high average midnight air temperature's indicated by the darker colours in Figure 2.

Ward	Tree Canopy cover % in Southwark
Borough & Bankside	6.65
St. George's	6.65
Old Kent Road	8.63
Camberwell Green	9.16
Peckham	9.74
London Bridge & West Bermondsey	10.21
Rye Lane	10.36
North Bermondsey	10.39
Dulwich Hill	11.97
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Surrey Docks	14.42
Newington	14.48
St. Giles	14.5
South Bermondsey	15.09
North Walworth	15.14
Faraday	15.69
Chaucer	16.66
Champion Hill	19.39

Table 1 –Target wards with less than 20% canopy cover (GLA 2016).

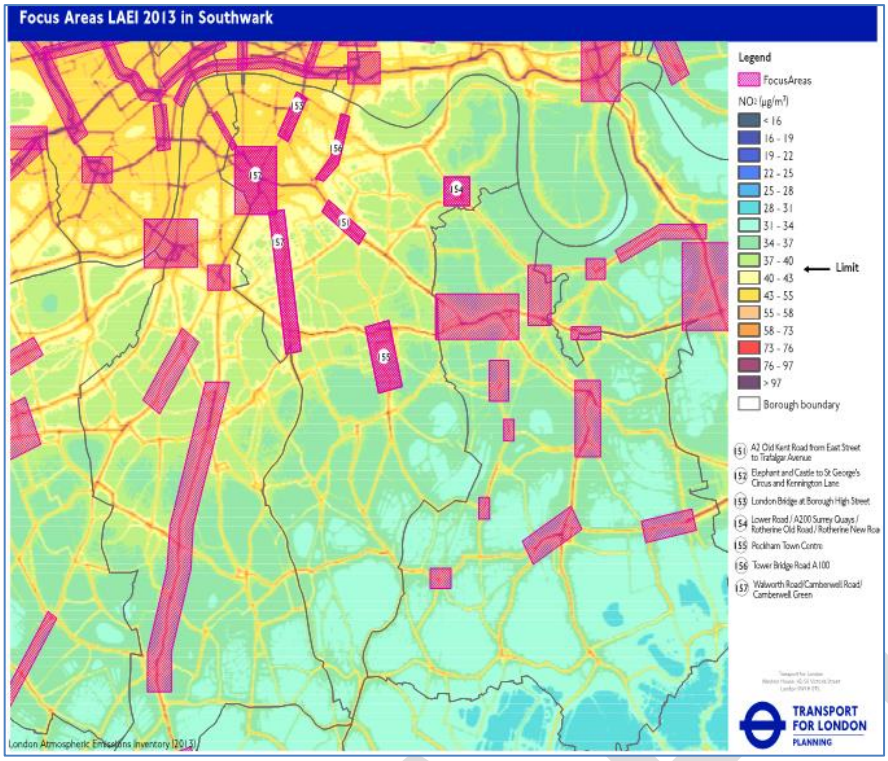

Figure 1 - London Atmospheric Emissions Inventory Focus areas (TFL 2013).

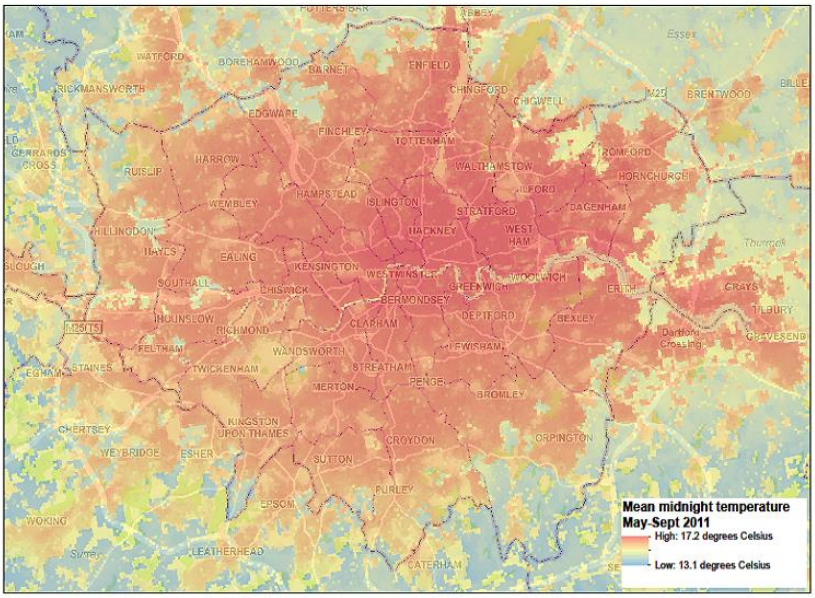

Figure 2 –Average midnight summer temperatures (GLA 2011).

There are a number of key considerations that should be addressed prior to undertaking any tree planting within Southwark to ensure successful establishment and longevity and reduce the need for intervention via pruning works.

Any tree stock purchased and planted by Southwark councils tree team both tree stock and planting practice should meet the best practice recommendations contained in BS8545

Location
Any new planting should be appropriately sited taking into account any onsite constraints such as the presence of above and below ground services ,street furniture and footpath widths , whilst considering the future growth of rates of the species to be planted.

Southwark Council will not usually undertake planting where the final the final footway width will be less than 1.2 metres following planting.

Tree Species
The tree is species chosen is likely to be largely influenced by the constraints identified onsite, however where appropriate preference should be given to the planting of large canopied species and trees that are considered to be resilient to climate change.

Tree species should also be tolerant of abiotic damage and environmental conditions of the intended site.

Any new planting should aim to increase the genetic diversity of species within Southwark and avoid planting greater than 20% of any one genera.

Ecosystem services and disservices
Trees that have the potential to grow 15 or more metres provide the greatest benefits to the urban environment as the ability to intercept rainwater, sequester carbon and contribute to urban cooling through evapotranspiration is greater in larger canopy trees.

Preference should be given to be planting species that are known to be efficient at filtering particulate pollutants such as PM10s and PM 2.5s.

Plants and trees produce biogenic volatile organic compounds, species such as Liquidambar and Salix that emit high levels of BVOCs should not be planted in closed canopy formations by busy roads to ensure that air circulation is maintained and emission’s are not pushed down to street level.

The siting of species that bear fruit such as Malus and Prunus should carefully considered avoiding fruit shedding in areas that are considered in appropriate such as those with high foot traffic.

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https://data.london.gov.uk/dataset/london-s-urban-heat-island---average-summer

London Atmospheric Emissions Inventory (LAEI) 2013 Air Quality Focus Areas - December 2016 update
[online]
Available at :
https://data.london.gov.uk/dataset/laei-2013-london-focus-areas

The urban tree manual
[online]
Available at :
https://www.forestresearch.gov.uk/tools-and-resources/urban-tree-manual/

TDAG.
The Canopy. London's Urban Forest. A Guide for Designers, Planners and Developers. (2011)
[online]
Available at :
http://www.tdag.org.uk/uploads/4/2/8/0/4280686/tdag_canopyweb.pdf

Appendix 4

Managing trees and subsidence

Subsidence occurs on clay soils, which naturally shrink or swell with changes in soil moisture. The water demand from trees and other vegetation growing on clay soils can affect the shrink/swell effect and, where close to buildings, a tree's effect on clay shrinkage can cause damage. Many properties in the south of the borough are built on sub soils with a high proportion of London clay.

Insurance Claim Mitigation

Southwark's Insurance Section supported by the Tree Section currently manages all claims relating to the Council's trees. Where a tree is implicated as having caused subsidence or damage to a property, the onus is on the claimant to provide evidence that the tree is the cause.

To manage risk and reduce liability, the maintenance regime for insurance-related pruning involves individual large trees and whole streets being pruned more frequently. Southwark Council is a signatory of the London Tree Officers Association's Joint Mitigation Protocol and the Risk Limitation Strategy, and has therefore undertaking the following actions:

- Instigate a regime of cyclical pruning of Council tree stock in areas predisposed to building movement where this is appropriate
- Provide dedicated resources for dealing with subsidence-generated claims directed at Council owned trees
- Instigate a regime of selective removal and replacement of street tree stock in areas
- predisposed to building movement where this is appropriate
- Challenge unwarranted claims based on poorly investigated or inaccurate evidence

Guidance for residents

If you believe your property is subject to subsidence damage you must contact your own insurance company who will investigate and if appropriate provide technical evidence of building damage and causality in support of any potential claim.

All of the above information is usually in a report provided by a Chartered Surveyor, who is employed on behalf of the freeholder's buildings insurance company.

Please note that Southwark Council cannot pay for any excess to be paid on an insurance subsidence policy.

If tree roots are proven to be a cause of damage, we will take action to abate further nuisance; in the meantime, we may look to take pre-emptive action, such as remedial pruning. However, each case is unique and needs to be evaluated on a case by case basis.

Tree pruning works in Southwark are prioritised and determined by the Council's tree officers.

Insurance Claim Procedure

The process for dealing with insurance claims is as follows:

- The claimant's insurers must contact the Council to report the claim and to check the tree concerned is owned by the Council.
- The claimant/property owner or their building insurers must provide the Council with
  the following:
    - A structural engineers report with a formal description of the damage
    - A site investigation report
    - A soils report
    - Positive tree and root identification, i.e. tree species, location, and nearness of roots to property
    - Level monitoring data to indicate evidence of the cyclical movement relating to the seasonal growth of vegetation
    - A drainage report
- The Council carries out its own assessment, including tree inspection. It produces a report for its Insurance Section detailing information held on a database including works previously carried out on the tree
- The Tree Section and Insurance Section collate the evidence provided to assess whether the tree roots are the primary cause of damage. If tree roots are proven to be a cause of damage, the Council will compensate the claimant and take action to abate further nuisance

Such insurance claims are dealt with on a case-by-case basis. A tree will not necessarily be felled as a result of a claim but will usually be included in the Council's 2 yearly maintenance cycle. This normally involves repeated crown reduction, which can reduce a tree's demand for water. This may in turn reduce the clay soil shrinkage and prevent further structural damage to the property. Where the decision is taken to fell a tree, the Council assesses whether it is appropriate to plant a replacement tree.

By maintaining detailed records of all Council-owned trees implicated in insurance claims, the Tree Section, in liaison with the Insurance Section, monitors where claims occur, and the maturity and species of trees involved. This enables them to develop a proactive approach to managing tree risks. It may be cost-effective to carry out pre-emptive crown reduction in high subsidence risk areas. The use of root barriers or similar tree growth restriction methods for newly planted trees should be considered in such high-risk areas.

Appendix 5

Biosecurity in Southwark

What is Biosecurity?

Biosecurity can be defined as measures or precautions designed to prevent the spread or introduction of unwanted pests and diseases.

Why is Biosecurity important?

Through human activities such as the global movement and trade in plant materials current and emerging pests and diseases are now seen as one of the biggest threats to the longevity and sustainability of the United Kingdoms treescape and Southwark's urban forest.

The introduction of pests and diseases into the country through the importation of plants and trees or via wood packaging materials has the potential to not only be damaging environmentally through the degradation of habitats and the loss of ecosystem services that trees provide but can also have an economic impact increasing budget pressures with high costs associated with the control and eradication of pest species.

What can we do?

Biosecurity measures are not required to be onerous or over complicated and generally just follow examples of Horticultural and Arboricultural best practice.

Southwark Councils Parks section will seek to follow the following biosecurity measures in the course of its operations.

* Prevent the spread and transmission of pests and diseases by regularly disinfecting and cleaning tools following pruning works.

* Regularly monitor newly planted trees in the first three years following planting to ensure that latent pathogens such as Xylella fastidiosa multiplex are not present.

* Increase the species and genetic diversity of the boroughs tree stock and avoid planting monocultures, whilst ensuring that any new planting is suitable for current climatic conditions and as far as reasonably practical plant tree species that are resilient to climate change.

* Southwark Councils Parks section will only plant tree stock and plant material that has met with the requirements of the European Unions and United Kingdoms plant passport systems and where possible source UK grown tree stock or tree stock and plant material that has been the subject of a quarantine period.

*Comply with the requirements of statutory plant health notices.

*Report any concerning tree pest or pathogens via tree alert.

Appendix 7

Southwark Council
Tree Risk Management Strategy
2019

Contents

1 Executive summary

1.1 As a Local Authority the London Borough of Southwark has a duty to ensure public safety whilst maintaining an environmentally diverse and valuable landscape. Residents and visitors to the borough have a reasonable expectation that they can enjoy the benefits of the environment assured that associated risks presented by trees are managed to acceptable and balanced levels. In this context the regulator, the Health and Safety Executive, recognises that there is a balance to be struck between the risks and benefits of trees: "public safety aspects can be addressed as part of the approach to managing tree health and tree owners should be encouraged to consider public safety as part of their overall approach to tree management." [15]

1.2 Whilst it is very rare to be injured or killed by a falling tree (the most recent statistics approximate the risk as 6 deaths per annum, or 1 in 10 million risk of death associated with tree failures in or adjacent to areas of high public usage, a further 55 people may be seriously harmed in any given year[16]) a formal plan articulating the policy decision, the method by which it was arrived at and the endorsement from stakeholders can be a vital asset if an incident were to occur. The purpose of this is proportional management of tree related risk with the associated requirements of providing audit trails, presentation of evidence, and a process for review.

1.3 The Tree Risk Management Strategy (TRMS) identifies key management issues and sets out a system in mitigation which is intended to manage risk at a level as low as reasonably practicable whilst retaining the benefits of Southwark's valuable and diverse tree stock. Initially the document sets out the purpose of the Strategy, its context within Southwark's policy framework and the legal background within which it has been developed. There is no single statute or source of guidance which focuses singularly on tree risk management, therefore this is explored fully in order to inform why the document and the tree risk management system described therein are necessary. Southwark's corporate responsibilities are also set out at this stage in order to clearly define the hierarchy of support required to ensure the success of the Strategy.

1.4 Modern tree risk management systems are based on the concept of target zoning whereby areas are categorised according to the degree of public usage where trees are located. The HSE recommends that at least two zones should be used to include trees, and this approach has been adopted in Southwark's TRMS: zone 1 is categorised as where there is frequent public access to trees to include highway, school, parks and trees located on housing estates. Default inspection frequencies are set out with mechanisms to increase frequency according to the risk that individual trees may present. Zone 2 includes trees that are subject to less frequent public access e.g. trees in woodlands, cemeteries, allotment gardens etc. The approach here is to map sites zonally in to target areas according to their differing site usage; therefore ensuring risk is managed proportionally on these often larger sites. Many sites mapped in this way will therefore include trees which are inspected on a regular basis and many which are not

[15] *HSE, SIM 01/2007/05, Management of the risk from falling trees 2005 www.hse.gov.uk/foi/internalops/sectors/ag_food/1_07_05.pdf*

[16] *The National Tree Safety Group have identified that the overall estimated risk of death per year from falling or fallen trees and branches in the UK is about 1 in 10 million with an additional 55 serious injuries*

inspected at all e.g. trees in woodlands away from roads and public footpaths. The ability to change zonal categorisation and the inspection frequency of individual trees not only allows officers to manage trees according to their physiological condition and size, but also consider any change of circumstances in land use; in recent years Southwark has hosted an increasing number of events in its parks and green spaces, therefore prescribing a simple procedure for events planners ensures that any enhanced risk associated with the gathering of large numbers of people is taken in to account and managed proportionately.

1.5 Within the system there are several types of inspection which are used according to the scope of the survey. For example, a proactive routine condition survey undertaken within zone 1 will require a different approach and resource allocation from a post storm survey where large numbers of trees are inspected quickly to assess associated damage. Different types of inspection require service by staff with appropriate levels of skill and experience. With this in mind a competency framework will be in operation to ensure key personnel are effectively trained and continued professional development is undertaken.

1.6 Further to the main body of the system sections for programmes, reporting and communications highlight the necessity for post survey organisational structure and maintaining the feedback mechanisms necessary to improve processes, whilst procedures for managing severe weather and dangerous trees are briefly set out and then explored in further detail in separate appendices. Climate change and pests and diseases are also given consideration in the context of future tree risk management.

1.7 This Strategy is intended as a document describing the concepts, challenges and expectations surrounding tree risk and how Southwark intends to manage those challenges and expectations. It is also intended as working document for all those operating within the system, whether directly as a specialist officer or engaging with the tree risk management system as a stakeholder. The implementation of the system will ensure that Southwark manages tree risk proportionately across the borough keeping its residents, employees and visitors as safe as is reasonably practicable whilst maintaining a healthy, sustainable and diverse tree stock for all to enjoy. The success of the Strategy is however contingent upon the continued service and vigilance of key officers ensuring that regular review and improvements are undertaken in order to measure its performance.

1.8 The TRMS forms a key element of the Southwark Tree Management Policy document which sets out a comprehensive position on how trees are valued, maintained and considered in existing and future landscapes within the borough.

2 Purpose of the Strategy

2.1 The London Borough of Southwark manages approximately 82,000 trees; 16,000 in streets, 44,000 park trees, 17,000 in housing estates, 5,000 located in school grounds and 54 hectares of woodland, including 64 local Sites of Importance for Nature Conservation. It is therefore important that the Tree Risk Management Strategy reflects the management of risk in such a diverse tree stock set across a wide range of land usages.

2.2 The Tree Risk Management Strategy makes clear all legal responsibilities, assesses how Southwark operates to mitigate the risk from trees, and sets out detailed associated procedures and methodologies. The Strategy will deliver a system to ensure expenditure of time and available budget proportionate to manage the risk.

2.3 All inspected trees will be set an inspection frequency according to risk in order to inform further surveys and remedial works programmes.

2.4 In order to deliver the Strategy Southwark will prioritise tree work so as to deal effectively in the first instance with areas of highest volume of vehicular and pedestrian traffic, and public usage e.g. roads, schools, parks, footpaths, play areas, etc.

2.5 The Strategy will develop and utilise the skills of non-arboricultural site managers e.g. Parks Managers, Housing Officers, and School Site Managers within the tree risk management system ensuring commensurate levels of training is undertaken and/or qualification are achieved where appropriate and new best industry practise guidelines are adhered to.

2.6 The success of the Strategy will be measured using Key Performance Indicators (Section 19) and reviewed periodically.

3 Policy context

3.1 The Tree Risk Management Strategy is intended to link in to the following wider London Borough of Southwark Health and Safety/Risk management strategies and policies:

Health and Safety Policy:

http://thesource.southwark.gov.uk/assets/files/9491/E-L-Health-and-Safety-Policy-Dec-18-DC.pdf

Health and Safety reference manual:

http://thesource.southwark.gov.uk/assets/legacy/getasset?id=fAA4ADIAMQA2AHwAfABUAHIAdQBlAHwAfAAwAHwA0

Risk Management Strategy:

http://thesource.southwark.gov.uk/tools-and-resources/risk-and-insurance/corporate-risk-management2/our-risk-management-strategy/

4 Legal background

4.1 A local government organization has a large range of statute law and civil case precedent on which to draw guidance for the formulation of a Tree Risk Management Strategy. The local authority has responsibilities to dispense a 'duty of care' to residents, people visiting land in its ownership, its employees and to those using highways within its control. These responsibilities are set out in the Health and Safety at Work Act[17] and the Occupiers Liability Acts of 1957 and 1984[18]. Further legal background is explored in Appendix 1 - **Tree risk and the law** for reference to relevant statute and case law.

5 National guidance

5.1 The following list of publications, whilst not intended to be exhaustive, represents some of the most helpful technical insight available to industry practitioners formulating tree risk management systems:

5.2 **National Tree Safety Group guidance 'Common Sense Risk Management of Trees', published December 2011[19].**

The National Tree Safety Group (NTSG) 11 was convened in August 2007 to develop a nationally-recognised approach to tree safety management and to provide guidance that is proportionate to the actual risks associated with trees.

The NTSG released its guidance 'Common Sense Risk Management of Trees' in December 2011. This is the first national guidance on tree risk management available to tree owners, and followed extensive industry and government consultation.

The NTSG's overall approach is that the evaluation of what is reasonable should be based on a balance between benefits and risks from trees. This position is underpinned by a set of five key principles:

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

The NTSG's guidance states that tree owners should take a balanced and proportionate approach to tree management that forms the basis of a tree safety strategy which covers three essential aspects:

- Zoning: appreciating tree stock in relation to people or property
- Tree inspection: assessing obvious tree defects
- Managing risk at an acceptable level: identifying, prioritising and undertaking safety work according to level of risk.

[17] *Health and Safety at Work Act 1974, Section 3 (1) https://www.legislation.gov.uk/ukpga/1974/37/section/3*

[18] *The Occupiers Liability Acts 1957 & 1984 https://www.legislation.gov.uk/ukpga/1984/3/contents*

[19] *National Tree Safety Group (2011) Common Sense Risk Management of Trees. Forestry Commission, Edinburgh. https://www.forestry.gov.uk/pdf/FCMS024.pdf/$FILE/FCMS024.pdf*

The NTSG's guidance requires that areas of land are defined according to levels of use, prioritising the most used areas. High use zones are areas used by many people every day, such as busy roads, other well-used routes, car parks and children's playgrounds, or where property many be affected. Trees in areas of high public use require an inspection regime. Trees in areas with low public use require less frequent inspection.

5.3 **Well-Managed Highway Infrastructure: A Code of Practice; Department for Transport (2016)[20]**

This National Code sets out government guidance on best practice for highway maintenance, with section B.4.10. (P87) *Condition of Landscaped Areas and Trees* dealing specifically with the maintenance of highway trees. Section B.5.4 concentrates on the inspection of trees within and outside the highway boundary.

5.4 **HSE Sector Information Minute ("SIM") Management of the risk from falling trees or branches (2013)[21]**

This document sets out the Regulator's expectations of corporate duty holders for the management of trees in a health and safety at work context. Although not intended as a guide to duty holders, it does set out a broad framework for decision-making that is relevant to all involved in managing trees. Indeed, it is regularly referenced in civil proceedings and is of direct relevance to corporate duty holders.

5.5 **Forestry Commission Practise Guide 'Hazards from Trees' A General Guide (2000)[22]**

This guide focuses on trees in a rural woodland setting, but its principles can often be reasonably applied to trees in the urban environment. It is also referenced in civil proceedings and as a source of further information in the HSE SIM.

5.6 **Arboricultural Association Guidance Note 7 – Tree Surveys: A Guide to Good Practice[23](2016)**

Whilst this Guide does not provide detailed procedures for tree inspection, or replace the range of existing guidance on tree health and condition, it seeks to assist the tree surveyor to clarify survey objectives, know where to find appropriate information, ensure that they meet their duty of care and identify opportunities for the use of technology to assist with collection, storage, and presentation of data.

5.7 Southwark will continue to consider future guidance as it becomes available (as Set out in KPI 3).

[20] *Well-Managed Highway Infrastructure: A Code Of Practice; Department for Transport (2016 http://www.ukroadsliaisongroup.org/en/utilities/document-summary.cfm?docid=4F93BA10-D3B0-4222-827A8C48401B26AC*

[21] *HSE, SIM 01/2007/05, Management of the risk from falling trees 2005 www.hse.gov.uk/foi/internalops/sectors/ag_food/1_07_05.pdf*

[22] *Forestry Commission Practise Guide 'Hazards from Trees' A General Guide (2000) www.forestry.gov.uk/website/publications.nsf/WebPubsByISBN/FE0F15B6DCFF1B7680256F9E00597C21.*

[23] *Arboricultural Association Guidance Note 7 – Tree Surveys: A Guide to Good Practice (2016) https://www.trees.org.uk/Book-Shop/Products/Guidance-Note-7-Tree-Surveys-–-A-Guide-to-Good-Pr*

6 Corporate Governance

6.1 LB Southwark must take all reasonably practicable precautions to ensure that all its trees are in a safe condition as far as is reasonably practicable.

6.2 LB Southwark is expected in law, as set out in Section 4, to ensure that it takes steps towards the good management of trees within its responsibility to ensure that it meets its duty of care to the public, contractors and staff.

6.3 The following chart and table illustrate the hierarchy of corporate governance and health and safety structure currently in operation in the organisation supporting the tree service.

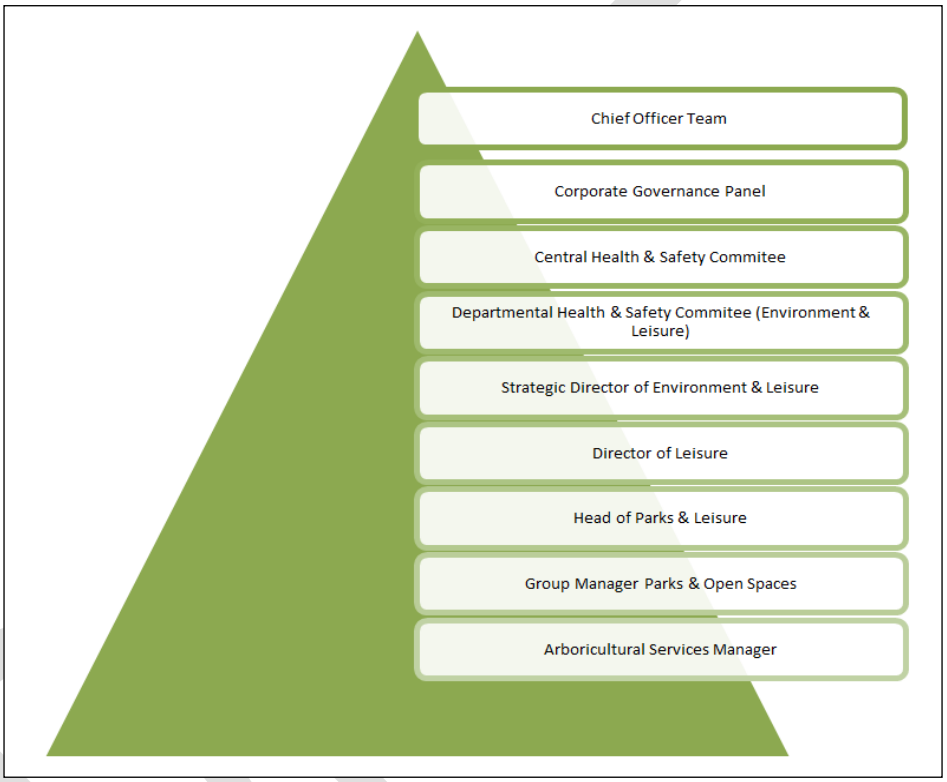

Figure1 - LBS Corporate Governance and Health & Safety reporting structure

Responsibility	Area of Work
Chief Officer Team	Overall responsibility for Health & Safety
Corporate Governance Panel	Strategic governance
Central Health & Safety Committee	Health & Safety governance
Departmental Health & Safety Committee (Environment & Leisure	Health & Safety performance
Strategic Director of environment & Leisure	Policy, Strategic Direction & Corporate Decision Making. Health & Safety
Director of Leisure	Policy, Strategic Direction & Corporate Decision Making

Head of Parks & Leisure	Overall Departmental responsibility & financial allocations
Group Manager Parks & Open Spaces	Performance of Service in accordance with corporate governance
Tree Services Manager	Day to day management of the service

Table 1 – corporate governance, H&S hierarchy and areas of work

6.4 The EL (Environment & Leisure) departmental management team is committed to pursuing progressive improvements in health and safety performance. Managers are responsible for ensuring risk assessments, annual audits and action plans are fully implemented. The department plans to continue the management led health and safety culture and therefore the Head of Sustainability and Business Development has been nominated as the management appointee with special responsibility for coordinating health, wellbeing and safety. Each division with the EL department has appointed a manager with defined health and safety responsibilities.

6.5 The EL departmental management team is responsible for managing health and safety within their areas of responsibility, ensuring adequate resources are available.

7 Tree Risk Management System

7.1 An approach to risk assessment that seeks absolute safety or the removal of all hazards or eradication of all risk will result in the loss of the benefits associated with trees. However, by assessing and controlling risks from tree hazards, Southwark will fulfil its responsibility for the safety of people and meet its requirements under the law.

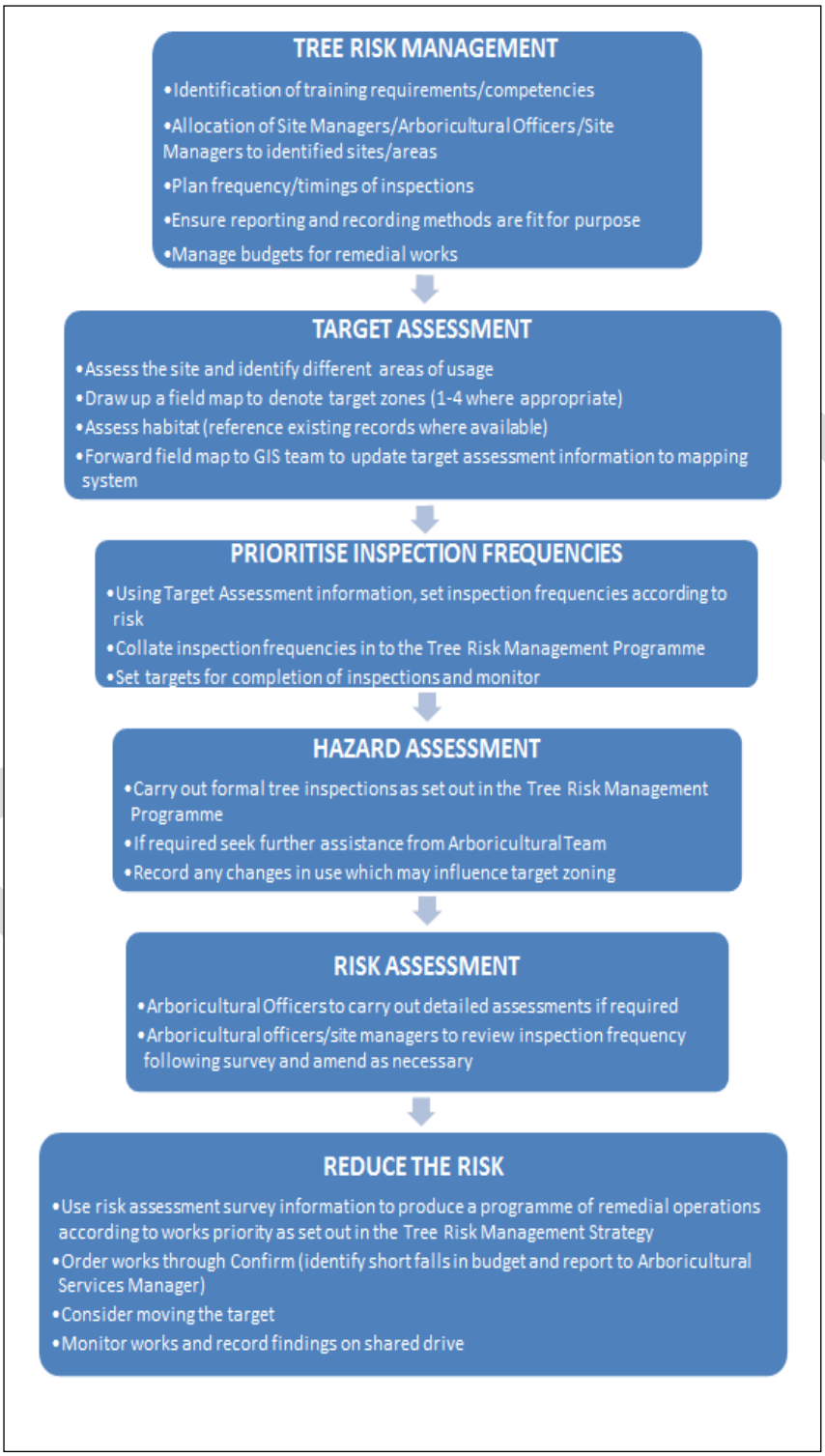

Figure 2 - Tree Risk Management Process

Definitions of hazard, risk and target

Hazards

7.2 Like all living organisms, trees are subject to physiological and/or structural decline whether by natural aging (senescence), and/or through infection by decay causing pathogenic organisms or pests. As a tree deteriorates or becomes diseased it is increasingly likely to shed limbs or fall in strong winds and therefore constitute a hazard with potential to cause harm to people and property. Trees are also sometimes subject to abiotic damage caused by vandalism, road traffic accidents and authorised or unauthorised development works which can directly cause or accelerate deterioration resulting in hazards forming.

Risk

7.3 Tree Risk is related to the location of the tree and reflects the intensity of use by people of the immediate surroundings and the proximity to property. Although a tree may constitute a hazard it will only become a significant risk if a person, or property (the target) is within falling distance of the tree (target area).The levels of risk therefore vary on a site which can be reflected by mapping target zones.

Assessing the Target

7.4 Using a target-led approach for assessing and reducing risk will meet Southwark's duty of care with regard to safety while ensuring any loss of amenity value only occurs when essential to managing risk. In evaluating whether such risks are significant, hazards need to be identified and the targets assessed before considering the future viability of individual trees.

7.5 A target assessment classifies the level and type of use of a site as well as identifying possible targets and assessing the benefits the tree may provide. It evaluates the nature of the targets in order to predict their frequency of presence within the target area and the extent of potential harm. For example particular care is taken where a tree is close to the highway, residential properties, and public utilities. Vulnerability to impact is also a factor where moving vehicles require special consideration, because in addition to being hit by falling trees and limbs, they may hit fallen parts or other vehicles in taking avoiding action.

Structure of the System

7.6 Using a target-led approach the tree risk management system is pro-active, rather than reactive, with problems identified as part of a routine assessment rather than reacting to reports regarding specific trees as they arise. The risk management process identifies the risks with the greatest degree of harm and the greatest probability of occurring, ensuring that they are managed in a hierarchy of descending priority.

7.7 The tree risk management system will operate on a zoning basis in two distinct tiers according to land usage categorisation with prescribed baseline inspection frequencies:

Zone 1

7.8 Trees allocated to Zone 1 status include all trees situated on the Highway, In Parks, Housing Estates and Schools in Local Authority control. The default inspection frequency for trees in Zone 1 is 3 yearly (Schools – 2 yearly) based on general target assessment information. In order to safely manage trees

which are identified as requiring an increased inspection frequency within the zone e.g. large trees adjacent to principal roads and/or trees infected by pathogens, it is possible to increase the frequency up to 6 months. In this way the default frequency sets a general requirement for the given classification type and targets enhanced cyclical assessment for individual trees as appropriate. Trees which are assigned a frequency greater than 3 yearly will be identified through a 6 monthly reporting mechanism to ensure all cycles are reviewed and maintained as necessary.

Zone 1		
Classification	**Criteria**	**Inspection frequency**
Highway trees	Trees adjacent to roads or footpaths over which the public has the right of access to include streets and lanes as well as main roads and trunk roads	3 years default - 6 months increased frequency
Park trees	Trees located on parks and open spaces with public access	3 years default - 6 months increased frequency
Housing trees	Trees located on housing estate land	3 years default - 6 months increased frequency
School trees	Trees located in the grounds of schools or school playing fields, including 'Forest School' sites	2 years default - 6 months increased frequency

Table 2 – Zone 1 classification, criteria and inspection frequency

Zone 2 - Target zoning

7.9 Trees allocated to Zone 2 status include trees situated within woodlands, other Sites of Importance to Nature, Cemeteries and Allotment sites. The default inspection frequency for trees in Zone 2 is 5 yearly based on general target assessment information.

Zone 2		
Classification	**Criteria**	**Inspection frequency**
Woodland trees	Trees located in woodland sites	0-5 years >6 months increased frequency
Other sites of Importance to Nature	Trees located within all other non-woodland sites of Importance to Nature	0-5 years >6 months increased frequency
Cemeteries	Trees located within cemetery sites	0-5 years >6 months increased frequency
Allotment sites	Trees located within allotment sites	0-5 years >6 months increased frequency

Table 3 – Zone 2 classification, criteria and inspection frequency

7.91 Within Zone 2 sites there is additional scope to create multiple target zones proportionate to differing site usage; therefore ensuring risk is managed proportionally on these often larger sites (it should be noted that some areas of sites within Zone 2 will experience as much public usage as some parks whereas others will be densely populated with trees and rarely visited). The target zones generated will reflect normal site usage, but will be kept under review as circumstances may change. An event involving large groups of people may change the status for the duration of the event (see section 11); new paths or re-routed paths and roads will also change the patterns of use and may change the target zone. Equally, management regimes e.g. woodland management practises may influence zonal allocation. All staff should be mindful to such changing circumstances and if necessary should discuss the review of a particular zone with the Arboricultural Services Manager/Arboricultural Officers.

7.92 The aim of the target assessment process is to provide accurate information which informs the generation of a layer on the Council's GIS geo-mapping system for each Zone 2 site of importance to nature by considering the following factors:

- the age, species and condition of the trees,
- the number and frequency of people and vehicles within falling distance,
- whether there are children likely to be put at risk,
- the use of property nearby,
- any significant likelihood and severity of risk of harm being caused.

Target Zone	Criteria	Inspection Frequency
1 - High	Trees located within falling distance of highways or property	3 years – Full Asset inspections (up to 6 months increased frequency for individual trees)
2 - Medium	where large numbers of individuals are likely to congregate e.g. for events	4 years – Full Asset inspections (up to 6 months increased frequency for individual trees)
3 - Low	Cycle paths, formal foot paths, public rights of way, bridleways, etc.	5 years – VTA[24] Basic Inspection (full asset survey to risk trees where required/up to 6 months increased frequency)
4 - Very Low	Woodland areas away from roads, public rights of way, footpaths. Sites of very low usage.	No inspections required

Table 4 Target Zoning, Criteria and Inspection Frequency

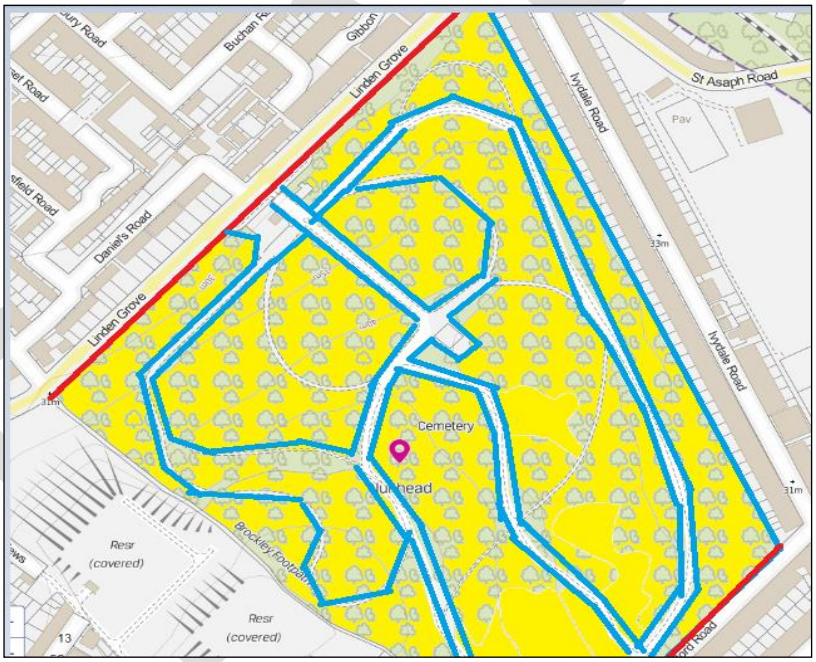

Figure 3 - Target Zoning Mapping example (Nunhead Cemetery)

	A High Risk
	B Medium Risk
	C Low risk
	D Very low risk

7.93 Individual trees may be given a higher or lower inspection priority than the risk zone in which they are sited (see paragraph 7.8). For instance, an exception may be given to trees that are found to have a higher hazard potential than their risk zone suggests, such veteran trees in relatively low usage

[24] *Visual Tree Assessment (VTA) process - Mattheck, C. and Breloer, H. (1994) The Body Language of Trees: A handbook for failure analysis. The Stationery Office, London.*

conservation sites, or very large single specimen trees sited in open areas which attract people from surrounding areas. Also, species known to have a higher incidence of failure as they are associated with specific pest and disease problems e.g. Horse Chestnuts and Ash trees should be considered as exceptions within risk zones. Similarly a tree may be prescribed a reduced cycle of inspection following a Visual Tree Assessment (VTA).

7.94 Only trees greater than 150mm in diameter (measured at 1.5 meters above ground level) are included in the risk assessments. This is based on research of documented tree failures that found that most failures occur in trees greater than 150mm in diameter (DBH). Where trees are in woodlands or groups, only trees along the edges of woodlands or adjacent to recognised pathway systems within wooded areas and groups are surveyed, unless they are identified with a priority zone as above.

Third parties managing sites

7.95 Several woodland and other sites of importance to nature are managed by third sector organisations. The terms of lease agreements set out the following expectations:

- A ground level visual tree inspection will be carried out by the site manager annually. It is desirable for site managers to hold LANTRA[25] basic tree inspection qualification.

- A Southwark Council Tree Officer will provide a programmed tree survey on a 5 year schedule. Tree works (excepting emergencies), will be carried out in compliance with the Wildlife and Countryside Act 1981, (As Amended).

- Inspection of trees and infrastructure will be undertaken after adverse weather. Any issues will be reported to Southwark Council immediately.

[25] *LANTRA. National Training Organization for the Land Based Industries.*

8 Surveying, inspection and remedial works

8.1 Southwark employs a series of different inspection types as appropriate to risk and conditions:

- Full Asset Inspection (Proactive survey)
- Basic Visual Tree Assessment (VTA) Inspection (Negative survey)
- Post Storm Event Inspections (Negative survey)

8.2 The standard inspection type is a **Full Asset Inspection** undertaken as part of a condition survey. This is proactively programmed with a set baseline frequency (usually 3 yearly) which ensures that every individual tree is inspected at regular intervals where its condition, measurements and recommendations for remedial works are updated. The remedial works recommended inform the formulation of works programmes on a monthly basis to ensure identified risk is managed appropriately.

8.3 **Basic Visual Tree Assessment (VTA)** Inspections are carried out within a negative survey of a large group of trees e.g. a woodland where individual tree inspection would prove impracticable. A negative survey identifies only individual trees where significant defects are present, the inspector recording these as they would with a Full Asset Inspection.

8.4 Recognising that there may be a heightened risk from trees during and following extreme weather events it is important that all publically accessible sites within the authorities control are subject to additional inspections within the shortest timeframe reasonably practicable. **Post Storm Event Inspections** are also undertaken as part of a negative survey to reflect the large number of trees requiring inspection. There are two types of post storm inspection which together ensure the trees subject are subject to a quick visual check once a storm has subsided:

- Post storm event inspection – highways drive-by inspection
- Post storm event inspections – parks, housing, schools and other sites

8.5 Further detailed information pertaining to inspection and survey types can be can be accessed in Appendix 2 - Inspections, remedial works and monitoring.

9 Detailed Investigation

9.1 A specialist examination of trees may be required where trees cannot be fully assessed by visual inspection methods alone. This type of inspection would normally be specified or requested to evaluate extent and type of decay present in the trunk, major branches or roots. In some cases this may require the use of specialised devices, but the equipment alone cannot be relied upon to make the evaluation. The presence of other factors such as wind loading, which are affected by the height and sail area of the crown, and exposure must also be assessed in relation to the results.

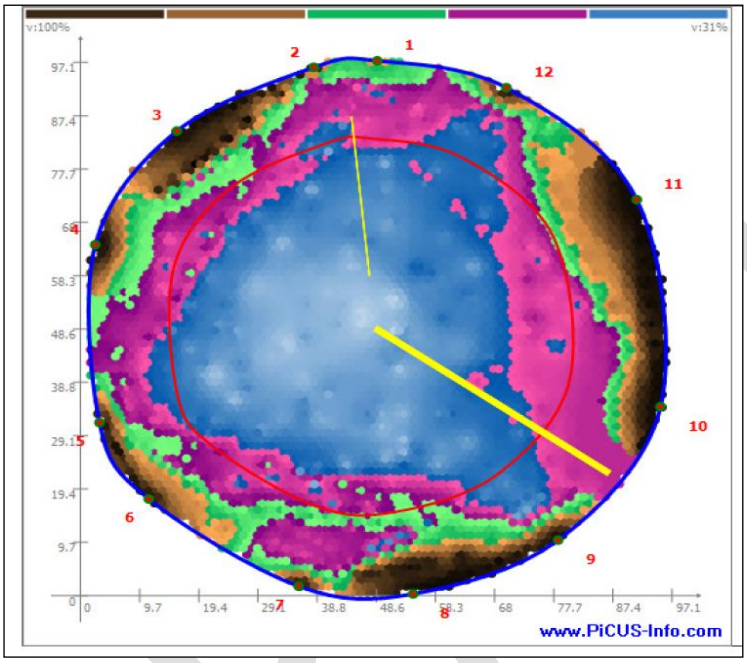

Figure 4 – Tomographic image representing structural integrity of a cross section stem.

9.2 In many cases it is not appropriate to carry out a detailed investigation. For instance, a woodland tree within a low risk zone would warrant less commitment in terms of the level of inspection than a large tree in next to the highway. It must also be borne out that some methods of evaluation are invasive, and cause damage to the tree. Typically, this type of damage is caused by holes being bored into existing decay columns which subsequently break down barriers created by the tree and allow the pathogen to move into previously sound wood. Therefore, the inspector must make a judgement whether the inspection warrants an invasive type of evaluation technique, and where possible, define the method of evaluation when specifying the additional inspection.

9.3 Generally the criteria for instigating further investigations are as follows:

- The tree(s) has been formally inspected as part of a condition survey or ad hoc inspection
- The inspector has been unable to qualify the significance of the defect or extent of decay
- The results of further investigations are required to inform, along with other factors as described above, future management recommendations
- An audit trail of decision making including technical evidence is necessary in order to justify potentially contentious management recommendations.

10 Competencies/roles and responsibilities

10.1 Only staff qualified to Level 2 and above in Arboriculture or as approved by the Arboricultural Services Manager may carry out full asset formal cyclical inspections. Only staff qualified to level 3 or above may carry out further advanced inspections/surveys and will report the requirements for advanced inspections to the Arboricultural Services Manager.

10.2 Appropriate records of staff qualifications will be held on file e.g. LANTRA certification. The Arboricultural Services Manager will maintain a competency framework to inform the approval process and engage staff in annual in-house refresher courses.

10.3 Tree work contractors and contracted parks staff also have a duty to report any significant hazards that may be apparent during the course of their work, and in extreme cases may take appropriate action to address the hazard without further consultation.

10.4 All involved staff must ensure that the trees identified in the Inspection as having a high risk of injuring people are made safe as soon as is reasonably practicable – usually within a day. In any Target Zone, trees which show obvious signs of imminent collapse or other serious hazards should be dealt with immediately on Emergency Call Out. This may require the use of temporary fencing and signage to keep people and vehicles away from the area until such time as the works can be carried out.

10.5 All other control measures shall be undertaken as soon as is reasonably practicable, bearing in mind the level of risk. Officers MUST report to the Arboricultural Services Manager any delay beyond the timing recommended in the inspection recommendation.

11 Events planning

11.1 Southwark and its stakeholders host numerous events of various sizes annually within park sites. Events have the effect of bringing together potentially large groups of people in to concentrated areas where trees are often situated.

11.2 Although condition surveys are undertaken in parks every 3 years, it is possible that significant defects are able to develop between inspections. Therefore the officer responsible for planning the event should consider whether there are trees proximal to areas of proposed usage that may require an additional survey. If large trees are located within falling distances of routes or gathering points the Tree Services Manager should be contacted in order to arrange a negative survey.

11.3 Once the survey has been undertaken and any necessary remedial works have been undertaken, the Tree Services Manager will confirm that the event is safe to proceed with.

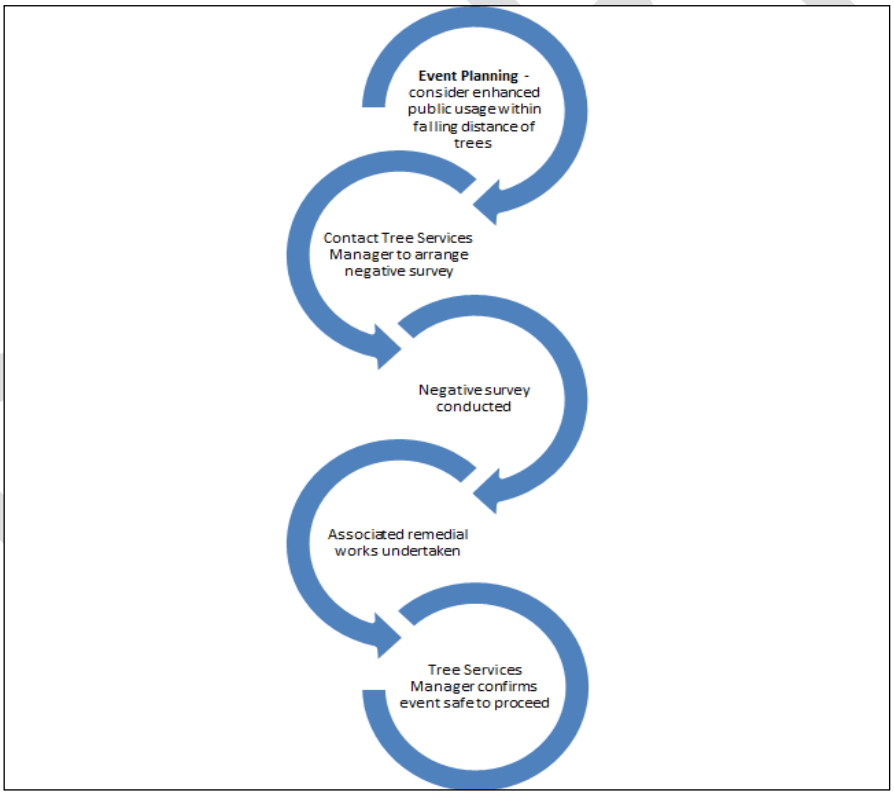

Figure 5 - Event planning – tree consideration process map

12 Programmes and reporting

Annual Felling Programme

12.1 The annual felling programme includes trees recommended for felling from condition surveys which do not require removal within short time frames on the grounds of public safety, or in association with insurance associated mitigation. The programme has been designed to take place during the September/October period in the interests of operational efficiency, planned communications with stakeholders, and to limit the time between tree removal and replacement prior to the planting season (November – March).

Failure Log

12.2 All incidences of tree failure, of public and privately owned trees, will be recorded and compiled in a failure log using records on Confirm Arboriculture and records from all emergency call outs. A monthly and annual report on the incidences of failure will be generated and stored on the Tree Section shared drive enabling the Arboricultural Services Manager to measure failure rates against Key Performance Indicators, and inform corporate heath and safety reporting.

Accident/Incident Reporting

12.3 Site Managers must ensure that all accidents and near misses involving trees are reported to the Arboricultural Services Manager. It is important to record events such as a tree shedding a branch, whether or not it injured someone, so that LBS may demonstrate due diligence and asses if there are any risks of which they are not aware.

13 Communications

All programmed tree removals are subject to the following procedure with reference to communications with stakeholders:

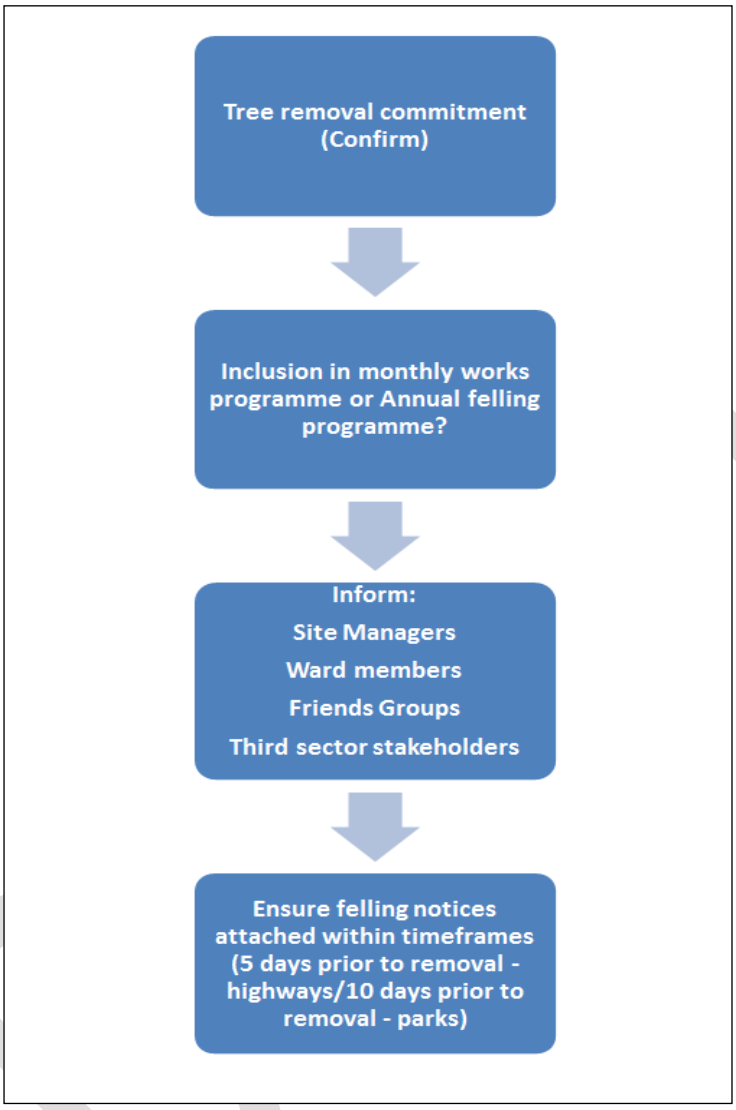

Figure 6 – Communications process map

13.1 It is important that the public, elected Members, stakeholders and colleagues sufficient notice of the intention to remove trees. Whether felling is to be undertaken as part of the annual felling programme or a monthly works programme, email notification must be sent at least 10 days in advance of the commencement of works. This will be followed up by the attachment of a Felling Notice to individual trees with a 10 day notice period.

13.2 Any objections or queries associated with the removal of trees should be answered prior to the commencement of the operation. However it should be understood that in some circumstances trees must be removed at short notice in accordance with their condition and associated public safety concerns. In such cases retrospective communications will be sent to Ward Members and stakeholders.

14 Severe weather

14.1 During periods of extremely windy weather the risk from falling branches will be increased. At gale forces, the risk may be increased to heightened levels (see Appendix 5: LBS Storm Contingency Plan).

14.2 Following storms, records of quick visual checks must be completed and recorded on Tree Section shared drive with associated recommendations for remedial works undertaken within designated priority timescales.

15 Trees in private ownership

15.1 **Local Government (Miscellaneous Provisions) Act 1976.** Occasionally there may be reasons why owners do not make dangerous trees safe, e.g. owners may not be traceable, or refuse, or are unable to pay. As a last resort, the local authority has powers under the Local Government (Miscellaneous Provisions) Act 1976 section 23 & 24 Dangerous Trees[26], to take the minimum action necessary to remove immediate danger on private land. However, these powers are discretionary; LBS will only exercise them if a tree in private ownership is likely to impact on the highway or council owned land or property (see appendix, pages LBS Procedure for tree risk mitigation on privately owned trees under the Local Government (Miscellaneous Provisions) Act 1976).

15.2 **Highways Act 1980 (section 154)[27].**
If a privately owned tree is causing an obstruction or danger to a road or carriageway within a public highway, powers exist under Section 154 of the Highways Act 1980, to enforce the owner of the tree remove the obstruction/danger. Failure to do so will result in the council undertaking the works, recharging the owner.

16 Climate Change/Pests and Diseases

16.1 Over the last few decades the UK has experienced increasing threats to Arboricultural Biosecurity as increased global trade acts as a pathway for the arrival of new organisms, with impacts potentially exacerbated by climate change and EU enlargement (new pathways of introduction into the EU). This has been highlighted by the increasing number of disease and pathogen outbreaks, most notably in relation to trees. Such examples include: Ash Die-back (*Hymenoscyphus fraxineus),* Horse Chestnut Bleeding Canker (*Pseudomonas syringae* pv. *aesculi*), *Phytophthora ramorum* and *P. kernoviae* affecting large populations of trees, Oak Processionary Moth (*Thaumetopoea processionea*), with its associated threat to human health; and in the wider European arena, the introduction and spread of Xylella *(Xylella fastidiosa)* and Canker Stain of Plane *(Ceratocystis platani)* are examples of recent high profile biosecurity failures.

[26] *Local Government (Miscellaneous Provisions) Act 1976 https://www.legislation.gov.uk/ukpga/1976/57*
[27] *https://www.legislation.gov.uk/ukpga/1980/66/section/154*

16.2 The cumulative impact of climate-induced stress and of any associated changes in the impact of pests on the trees is uncertain in the medium-long-term, but new pests, diseases and pathogens are appearing and the Tree Service maintains awareness of these and will update staff of any developments.

16.3 Although there is unlikely to be any significant short-term increase in the resource commitment as a result of climate change, a flexible approach will be necessary to meet any challenge posed by any long-term changes. This will be considered during the on- going review of policy and procedure.

17 Audit/peer review

17.1 Policies and procedures associated with the Strategy are required to be auditable: annual reports following review on tree risk and the effectiveness of the Strategy are to be generated by the Arboricultural Services Manager and distributed to the Cabinet Member, Senior Managers and all staff engaged in the Strategy. A full internal audit is to be carried out by the Tree Service after the first 3 years, the results of which will be distributed as above.

17.2 External audit is to be carried out after 5 years either by the Tree Team of a Borough with a comparable level of tree risk management in a reciprocal arrangement, or by an external Arboricultural Consultant registered with the Arboricultural Association.

18 Strategy plan

18.1 In order to effectively implement the Strategy the following actions are to be delivered within designated timescales:

Action number	Action	Target Completion Date	Achieved Date
1	Circulate final version of Strategy to all key staff	April 2019	-
2	Implementation of new comprehensive survey programme	April 2019	-
3	Inspection frequency attribute to be formulated in Confirm	October 2018	October 2018
4	Arboricultural Services Manager, with assistance from Arboricultural Officers/Site Managers (including third sector managers), to set frequency of inspections in a cycle according to target assessment in Zone 2 sites - target assessment maps of all sites and forward to GIS Team.	September – November 2019	-

5	Arboricultural Services Manager to organise and run in house inspection course for all staff undertaking tree inspections, recording achievements within a competency framework September 2020	September 2020	-

19 Key Performance Indicators

19.1 The following Key Performance Indicators have been designed to test the on going effectiveness of the Strategy following the implementation period (March – November 2019):

KPI Number	Key Performance Indicator	Target Completion Date	Achieved Date
1	Annual reports following review (to include details from the failure log as well as near miss incidents, cyclical inspection frameworks etc.) to be generated by the Arboricultural Services Manager	Annually (1st report March 2020)	
2	Full internal audit to test the effectiveness of the Plan to be made with adjustments implemented and recorded	Annually (1st report April 2020)	
3	Continual review of legal judgments relating to tree risk management to ensure Tree Risk Management Plan adjusts to emerging case law	Annually	
4	External audit is to be carried out after 5 years either by the Tree Section of a Borough with a comparable level of tree risk management in a reciprocal arrangement, or by an external Arboricultural Consultant registered by the Arboricultural Association	March 2024	

20 Glossary of terms

Basic tree inspection – a quick visual inspection according to the criteria of VTA (Visual Tree Inspection).

Biodiversity – is the variety of life in terms of ecosystems, habitats, species and genetic diversity.

DBH – Depth at Breast Height (diameter of the stem taken at 1.5m from the ground).

Deadwood – is wood that no longer contains living cells and does not fulfil any function for the tree. It may still be attached or have fallen from the tree.

Full Asset Survey – an expansive visual inspection according to the criteria of VTA where measurements including species, DBH, estimated height, crown spread, and defects are recorded using the SBS Confirm system. Recommended works are also recorded during a Full Asset Survey.

Habitat – is a term used to describe the 'home' of species.

Habitat assessment – is the evaluation of a site to identify individual specimens and groups of trees and areas of woodland of historic, scientific and amenity value.

Harm - refers to personal injury or damage to property.

Hazard - is a situation or condition with potential to cause harm in particular circumstances.

Hazard assessment – is the evaluation of a hazard (the inspection of a hazardous tree), to identify past mechanical failures or obvious signs of structural weakness indicating potential failure.

Important species – are those species of Arboricultural Services Manager, animals and micro-organisms that are protected, rare or notable.

Growth – is trees in the ancient phase of their lifecycle or in a woodland context stands of trees that have not been managed for over 200 years. Many of these trees have a large girth, and dead and dying trees are present.

Retained trees – are notable trees, often veteran trees, including living, dying or dead trees, that are located in high risk areas but kept intact because of their intrinsic historic, scientific or amenity value.

Risk - is a combination of the level of likelihood that a hazard will cause harm and the potential severity of the injury or damage caused.

Risk assessment - is the evaluation of the probable circumstances in which a hazard might cause harm (likelihood) and the possible outcome of that eventuality (severity).

Senescence - the condition or process of deterioration with age.

Site Managers – officers/managers with responsibility for site management.

Target - is a person, animal or property that might be harmed.

Target area - is the area within falling distance of a tree. Whilst a tree or its branches break and fall, it will not cause harm unless the target is present.

Target assessment – is the evaluation of a site to identify potential targets and their proximity to any individual specimens or groups of trees and woodland that may constitute a hazard.

Target zone - is an area classified by a target value (severity of risk) or frequency of use (likelihood of risk) to give a notional range of risk for prioritising work.

Veteran trees – are trees of interest biologically, culturally or aesthetically because of their age, size or condition. They are often trees in the ancient stage of their life cycle and are old and large relative to others of the same species. They invariably contain old growth and deadwood.

VTA – Visual Tree Assessment. A widely adopted method of assessing tree condition developed by Claus Mattheck.

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22 Table of Appendices

Appendix	Title
Appendix 1	Tree risk and the law
Appendix 2	Inspections, remedial works and monitoring
Appendix 3	Guidance for Site Managers- Tree Risk Management Strategy
Appendix 4	Procedure For Tree Risk Mitigation On Privately Owned Trees Under The Local Government (Miscellaneous Provisions) Act 1976
Appendix 5	LBS Storm Contingency Plan

Appendix 1

Tree risk and the law

1 Statute law

1.1 Under U.K law there are several Acts of Parliament which have direct relevance to landowners and land managers with reference to responsibilities required to dispense a duty of care to the public, employees and contractors:

Health and Safety at Work Act 1974, Section 3 (1)
[1]

1.2 The basis of British health and safety law is the Health and Safety at Work Act 1974.The Act sets out the general duties which employers have towards employees and members of the public, and employees have to themselves and to each other. These duties are qualified in the Act by the principle of *'so far as is reasonably practicable'*. In other words, an employer does not have to take measures to avoid or reduce the risk if they are technically impossible or if the time, trouble or cost of the measures would be grossly disproportionate to the risk. What the law requires here is what good management and common sense would lead employers to do anyway: that is, to look at what the risks are and take sensible measures to tackle them.

Example: The Birmingham Ash

1.3 For local authorities assessing tree risk management perhaps the most pertinent case of recent times involved Birmingham City Council who were fined £150,000 for breaching health and safety law after three people were killed by a falling tree. In December 1999 amid gale force winds a 15-tonne, 180-year-old ash tree fell across both carriageways, crushing the two cars. The driver of a third car also hit in the accident escaped with minor injuries. In his judgement Richard Wakerley QC stated:

"The condition and the danger the tree presented would have been obvious to anyone making a close inspection of that tree."

It was found that the council had failed to put into place a proactive system to deal with tree maintenance, and did not have staff trained in such matters. Following the trial, Birmingham City Council said it:

"*Deeply regrets this tragic accident. "We have taken on board the lessons to be learned to strengthen and upgrade our tree maintenance programme."*

In addition to the HSE conviction for breaching section 3(1) of the 1974 Health and Safety at Work Act. The Council were then open to civil action potentially brought by the families of those who died. The CPS decided not bring a case against the council for corporate manslaughter.

1.4 **The Management of Health and Safety at Work Regulations 1999 (the Management Regulations)**[2] generally make more explicit what employers

[1] *Health and Safety at Work Act 1974, Section 3 (1) https://www.legislation.gov.uk/ukpga/1974/37/section/3*

are required to do to manage health and safety under the Health and Safety at Work Act. Like the Act, they apply to every work activity. Significantly regulation 3 sets out the requirement for Risk Assessments to be made in relation to work activities for both employees and the public.

1.5 **The Occupiers Liability Act 1957**[3] sets a duty owed to the visitor by the occupier (in this case the L.A) to 'take such care as in all circumstances of the case is reasonable to see that the visitor will be reasonably safe in using the premises for the purposes for which he is invited or permitted by the occupier to be there' (reasonable foreseeability).

1.6 **The Occupiers Liability Act 1984**[4] extends the duty to include a person in exercise of a right to roam on access land conferred by section 2 of the **Countryside Rights of Way Act 2000**[5]. This duty is also extended to include trespassers. Also significant in CRoW it is set out that for the purposes of recreation there is no extra duty on the owner to control a risk arising from a natural feature. People are expected to be responsible for their own safety.

1.7 **The Highways Act 1980**[6] gives rise to a duty to 'maintain the highway'. Sections 58 and 96 allow the highway authority to defend itself by ensuring that the risk of tree failure impacting the highway is as low as is reasonable. The proof of which can be made by keeping records of inspection and resultant action taken. It also has powers under section 154 of the Act to require landowners and those responsible for trees growing on land adjacent to the highway to remove trees which are dead, diseased, damaged or insecurely rooted.

1.8 **Local Government (Miscellaneous Provisions) Act 1976**[7]**.**
Occasionally there may be reasons why owners do not make dangerous trees safe, e.g. owners may not be traceable, or refuse, or are unable to pay. As a last resort, the local authority has powers Under the Local Government (Miscellaneous Provisions) Act 1976 section 23 & 24 Dangerous Trees, to take the minimum action necessary to remove immediate danger on private land.

1.9 The **Compensation Act 2006**[8] also has relevance where tree owners have a duty of care to maintain. A court considering a claim in negligence or breach of statutory duty may, in determining whether the defendant should have taken particular steps to meet a standard of care (whether by taking precautions against a risk or otherwise), have regard to whether a requirement to take those steps might— prevent a desirable activity from being undertaken at all, to a particular extent or in a particular way, or discourage persons from undertaking functions in connection with a desirable activity.

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[2] *The Management of Health and Safety at Work Regulations 1999 (the Management Regulations) http://www.legislation.gov.uk/uksi/1999/3242/contents/made*
[3] *The Occupiers Liability Act 1957 https://www.legislation.gov.uk/ukpga/Eliz2/5-6/31/contents*
[4] *The Occupiers Liability Act 1984 https://www.legislation.gov.uk/ukpga/1984/3/contents*
[5] Countryside Rights of Way Act 2000 https://www.legislation.gov.uk/ukpga/2000/37/contents
[6] *The Highways Act 1980 https://www.legislation.gov.uk/ukpga/1980/66*
[7] *Local Government (Miscellaneous Provisions) Act 1976 https://www.legislation.gov.uk/ukpga/1976/57*
[8] *Compensation Act 2006 https://www.legislation.gov.uk/ukpga/2006/29/contents*

2 Relevant Case Law and Common Law Precedent

2.1 According to the tort of nuisance and of negligence the home owner owes a duty of care in common to all who might be injured by the tree if failure in part or in whole might occur. In definition this requires taking reasonable care to avoid acts or omissions which cause a reasonably foreseeable risk of injury to people or property.

2.2 The concept of 'duty of care' was established and has been subsequently strengthened by court precedent established where claims of negligence and nuisance have been made in cases unrelated to trees though important in providing back ground:

The House of Lords case of ***Rylands v Fletcher (1868)***[9] found the defendant guilty of trespass and the commissioning of a nuisance where Ryland's reservoir flooded a neighbouring mine run by Fletcher. In another case of flooding ***Leaky v The National Trust (1980),***[10] this time in the Court of Appeal, the defendants were judged to have allowed a pipe to collapse impacting on neighbouring land. The defendants were found guilty of failing in their duty to carry out what was reasonable to prevent the flooding. The House of Lords case of ***Donoghue v Stevenson (1932)***[11] established the modern concept of negligence setting out general Principals whereby one person would owe another person a duty of care. A drinks manufacturer (Stevenson) was judged to have been negligent in allowing the remains of a snail in to a bottle of ginger beer drunk by the claimant.

2.3 In civil law the case of ***Kent v Marquis of Bristol 1947***[12] set a precedent to this effect. This case involved an Elm tree which blew down in a storm killing the driver of a vehicle. On examination of the tree it was found to have a cavity with decay which would have been easily seen during a routine inspection. However, since the tree had not been inspected, no action had been taken to remedy the hazard. Hence, the defendants were found liable and substantial damages were awarded to the plaintiff.

2.4 The case highlights the necessity for inspecting trees even at a very basic level. Ignorance is no defence in the eyes of the law. A householder would have no defence if a tree with significant defects in their ownership were to cause harm and those defects were foreseeable.

2.5 ***Chapman v Barking & Dagenham London Borough Council 1997***[13]***.*** This case involved a claim by the plaintiff against the Borough Council for damages against injury when a branch from a council owned Horse Chestnut tree, fell in a storm, onto the plaintiff's vehicle causing serious physical injury. The tree had been pruned some years before and should have been regularly inspected since Horse Chestnuts trees are prone to decay quickly around major pruning wounds. The council had no formal system for the inspection of trees in their ownership and the court found against them.

[9] *Rylands v Fletcher (1868) https://en.wikipedia.org/wiki/Rylands_v_Fletcher*
[10] *Leaky v The National Trust (1980) https://webstroke.co.uk/law/cases/leakey-v-national-trust-1980*
[11] *Donoghue v Stevenson (1932) https://www.lawteacher.net/cases/donoghue-v-stevenson.php*
[12] *Kent v Marquis of Bristol 1947 https://arboriculture.wordpress.com/2016/04/13/uk-case-law-relating-to-dangerous-trees/*
[13] *Chapman v Barking & Dagenham London Borough Council 1997 https://swarb.co.uk/chapman-v-london-borough-of-barking-and-dagenham-ca-13-jul-1998/*

2.6 ***Poll v Vicount Asquith of Morely (2006) (Poll v Bartholemew)***[14]
The Claimant's case was that both the landowner/landlord and the highway authority have a duty of care to identify hazard trees and take reasonable actions to reduce risks to acceptable levels, which they failed to meet for this tree. The Defendants argued that the duty of care had been met through the drive by inspection, and that, in any event, the fungal defect would not have been found during a competent inspection. The Judge found in favour of the Claimant because a competent inspection was not made.
This case highlighted the need for provision, if required; to employ the services of a competent specialist to assess trees in more detail following concerns raised at basic or informal inspection levels.

2.7 In the case of ***Carminer and another v Northern London Investment Trust (1951)***[15] an elm tree was growing on land of which the defendants were the lessees. It fell onto the highway injuring the plaintiff and damaging his car. The tree was 130 years old and was affected by elm butt rot. The defendants were not held liable as they were judged they could not by reasonable examination have discovered the existence of this disease. However the duty of landowners was refined by Lord Oakey*:*

"The respondent's duty was to act as ordinary prudent landowners would act. Landowners are not all experts in the management of trees, and those who are not perform their duty if they take reasonable steps to employ persons who are experts".

2.8 ***Bowen and others v the National Trust (2007)***[16]
In June 2007, a group of children were taking part in an orienteering exercise with a local activities centre. They were in woodland owned and managed by the National Trust, in the grounds of Felbrigg Hall in north Norfolk. A large branch fell from a beech tree and struck the children. An 11-year-old boy was killed and three other children injured. The accident was investigated by the police where no enforcement notices were served and no prosecution was brought against any individual or organisation.

2.9 A civil case was brought by the families of the children against the National Trust. The case, to determine liability, was heard in the High Court in June 2011. In this situation, the tree was located in a medium usage zone, and had been inspected twice in January 2007 before the accident, one a routine inspection and one after high winds. To summarise, the National Trust's tree inspectors considered that the tree, in such a location and given the relatively low level of use of the area, did not have significant defects that merited recording or further investigation. Any defects at the junction between branch and trunk would not have been visible from a ground level visual inspection, which was all that was required in the circumstances. During the case there was a thorough examination of the Trusts inspection regimes and records. There was found to be no negligence or breach of duty by the defendant.

[14] *Poll v Vicount Asquith of Morely (2006) (Poll v Bartholemew) https://www.barrelltreecare.co.uk/assets/Uploads/17-Poll-Legal-JB.pdf*
[15] *Carminer and another v Northern London Investment Trust (1951) http://insurance.dwf.co.uk/news-updates/2015/02/tree-risk-management-and-the-law-a-quick-guide/*
[16] *Bowen and others v the National Trust (2007) https://www.haroldstock.com/solicitor/occupiers-liability-courts-consider-reasonable-appropriate-maintenance/*

Cavanagh v Witley (2018) EWCA Civ 2232[17]

2.91 In January 2012, after stormy weather during the night, a lime tree some 25 to 30 metres high fell onto the adjoining A283. Regrettably the tree collided with the bus being driven by the claimant and he was badly injured. The tree was subject to inspections every three years by a tree surgeon appointed by the local authority. It had been inspected in 2006 and 2009 and no defects were present. The cause of the fall was decay that had begun to develop after the 2009 inspection such that it was not discovered by the local authority.

Decision of trial judge

2.93 The claimant succeeded. The judge accepted the evidence of the claimant's tree expert who stated that the tree was in a high risk position as it was located in a very busy area and next to a main road. Therefore, given its size, location and potential to cause very serious harm, it should have been inspected no less than every two years and this more frequent regime would have identified the decay and prevented the accident. The defendant appealed. The thrust of the appeal was that it had been accepted by the experts and the trial judge that whilst the tree was in a high risk position, it was not in itself a high risk tree by reference to any recognised or published criteria. Indeed, a tree would only generally be deemed to be high risk if it had been identified as unhealthy and this was not the case.

Court of Appeal

2.94 The appeal was unanimously dismissed. The judge had made findings of fact that were open to him on the evidence. In particular, his conclusion that the size, age, weight and location of the tree, and the likelihood of it causing very severe damage if it fell, meant that it required more regular inspection was "unimpeachable".

Comment

2.95 Arguably the local authority was unfortunate to lose this case at first instance. It had a robust system of inspection carried out by an expert and the tree had shown no signs of ill-health. The difficulty on appeal was that it had to overturn findings of fact in order to succeed. This proved to be an insurmountable hurdle as the Court of Appeal was not willing to find that the judge was plainly wrong.

2.96 More significant perhaps is the Court of Appeal's apparent endorsement of a Forestry Commission Practice Guide (2000) – Hazards from Trees. After quoting a passage in this guidance about certain trees requiring more frequent inspections, LJ Flaux referred to; "the force of the point being made in this passage about the need for particular "rigour" in inspecting large trees which are adjacent to a main road and which represent a significant potential hazard" (para 36). At first blush, this has potentially significant implications for local authorities (and other landowners).

2.97 It is to be hoped that comfort can be taken from the specific facts of this case. In particular, this Parish Council is only 11 square kilometres and the majority of its trees are, according to the first instance judgment, either not along the roadside or are not of a size and weight, whereby they could cause severe injury or damage if they failed. In the words of the trial judge; "I suspect that there was none that had more potential for causing harm than this lime tree.

[17] *Cavanagh v Witley (2018) EWCA Civ 2232 https://www.weightmans.com/insights/cavanagh-v-witley-parish-council-court-of-appeal/*

What was required here was a distinction. If the vast majority of the tree stock had been inspected (as it could well have been) on a much more infrequent basis…a proper and more rigorous system of inspection could have been instigated in respect of the small number of trees which merited special care; trees which were large, heavy, old/mature, and in places where they could cause serious damage."

2.98 For local authorities with large numbers of trees and finite resources, this may be a key point. The Court of Appeal was only looking at findings of fact so it had no cause to hear reasonableness or resources arguments. Clearly though, there is far greater scope for more frequent inspection of a high risk tree if a local authority only has one such tree in its occupation and control.

Appendix 2

Inspections, remedial works and monitoring

1 Inspections

1.1 All inspections should take place from ground level when visibility is clear. Because timing and frequency are of vital importance for the strategy to operate efficiently, the identification of the next inspection will depend on the nature of the hazards identified as well as the circumstances and the definition of the risk zone. If there is a problem that cannot be fully evaluated, suspect trees should be programmed for re-assessment. In the case of a specific defect, this should be recorded and identified for further monitoring or detailed investigation and may require aerial inspection or use of specialist diagnostic tools. Binoculars are also helpful during tree inspections to evaluate defects, fruiting bodies and structural weakness at a high level, which otherwise may not be identified.

Full asset inspection

1.2 A typical full asset VTA inspection using the Arboriculture Confirm system in accordance with the above procedure, typically takes between 3 and 5 minutes with approximately 100 trees inspected in an average working day. Species and location are recorded together with measurements including height, girth, crown spread and expected life span in addition to defects and recommendations for remedial works.

Basic VTA inspection (Negative Survey)

1.3 Basic VTA inspections can be completed between 1-3 minutes depending on the size of the tree and its accessibility. Individual trees are only recorded if they are seen to be defective or require remedial works to ensure safe passage by people or vehicles. If basic inspection is carried out by an officer qualified to Level 2, trees with significant defects or required remedial works are referred to an Arboricultural Officer (qualified to Level 3) for recording and subject to full asset inspection.

Post storm event Inspections

1.4 Recognising that there may be a heightened risk from trees during and following extreme weather events it is important that all publically accessible sites within the authorities control are subject to additional inspections within the shortest timeframe reasonably practicable. Post storm event surveys should consist of quick visual checks in order to reflect the large number of trees requiring inspection:

Post storm event inspection – highways drive-by inspection

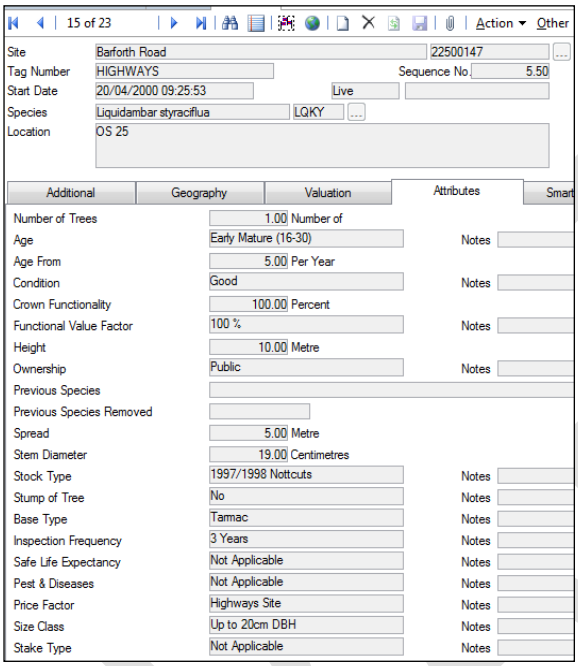
1.5 Southwark has many miles of highways which are bordered by private land. Whilst private landowners must dispense their own duty of care in relation to the risk presented by defective trees, Southwark has a duty set out under the Highways Act 1980 to take reasonably practicable measures to ensure the highways within its authority are safe for all users. To meet this duty, drive-by inspections will be made on the highway network following a storm event. Drive-by inspections must be made with 2 officers – one driving at low speed and one officer carrying out the survey. Vehicle tracking information recorded in the course of the inspection will be stored in Southwark's tree risk management data files. Defective trees in private ownership are to be

recorded and subject to the Councils procedure under the Miscellaneous Provisions Act 1976 as set out in Appendix 4.

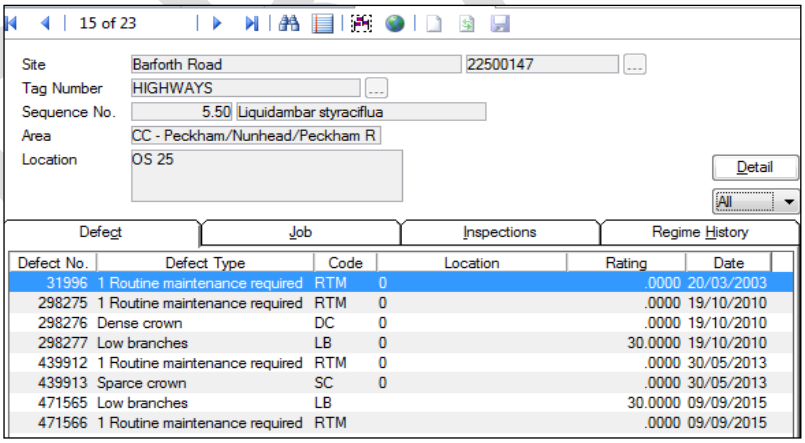
Post storm event inspections – parks, housing, schools and other sites

1.6 Parks, Housing and School site managers already carry out regular inspections of infrastructure as part of their cyclical inspections regime.

For further information refer to Appendix 3 – Guidance for Site Managers and Appendix 5 – Storm Contingency Plan.



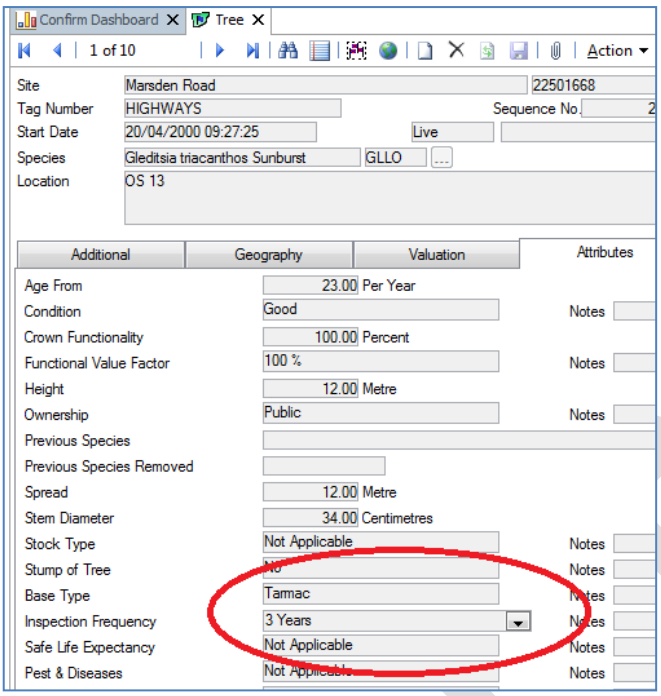
Tree record with measurements



Defect list (History)

Inspection frequency setting

1.7 The current default setting for street and parks trees is 3 yearly and 2 yearly for School Trees. However as described above all registered trees can be assigned different inspection frequencies according to the potential risk they present. Frequencies range from 0 – 7 years.



Assigning inspection frequency

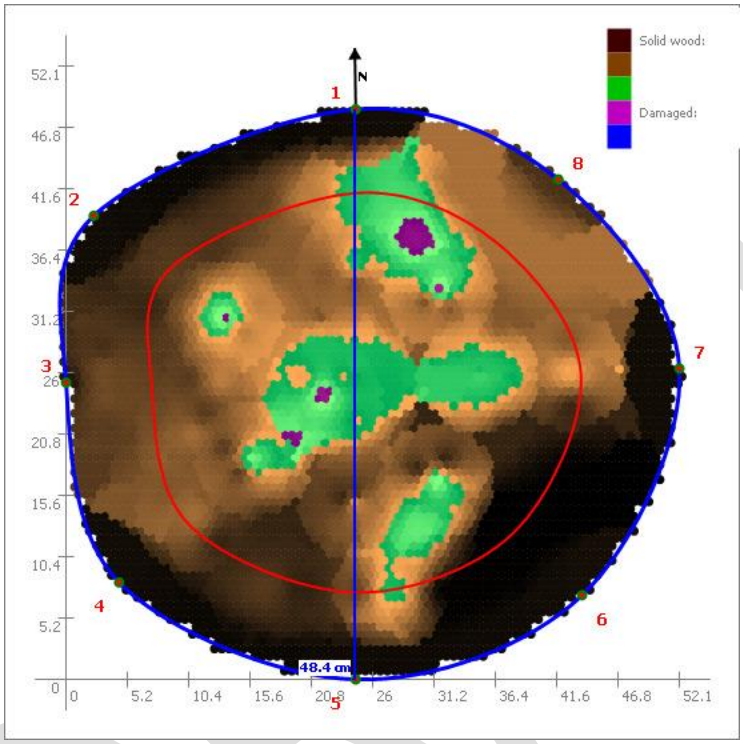
Examples:

Inspection frequency (year)	Tree category/condition
0	trees located in woodland remote from public access (previously surveyed)
1	a high value risk tree in decline with significant defects
2	trees in school grounds/large trees with minor defects situated within falling distance of the highway .
3	default highways inspection frequency
4	public rights of way default
5	woodlands/allotments/cemeteries default
6	trees within falling distance of minor pathways in low risk zones
7	veteran trees with restricted public access

1.8 On an annual basis inspection frequency data from the previous year's survey must be downloaded and further surveys assigned to AO's as necessary. An inspection frequency data sheet will be stored on the Trees and Woodlands Team Site to include all registered trees.

2 Detailed Investigation

2.1 A specialist examination of trees may be required where trees cannot be fully assessed by visual inspection methods alone. This type of inspection would normally be specified or requested to evaluate extent and type of decay present in the trunk, major branches or roots. In some cases this may require the use of specialised devices, but the equipment alone cannot be relied upon to make the evaluation. The presence of other factors such as wind loading, which are affected by the height and sail area of the crown, and exposure must also be assessed in relation to the results.



2.2 In many cases it is not appropriate to carry out a detailed investigation. For instance, a woodland tree within a low risk zone would warrant less commitment in terms of the level of inspection than a large tree in next to the highway. It must also be borne out that some methods of evaluation are invasive, and cause damage to the tree. Typically, this type of damage is caused by holes being bored into existing decay columns which subsequently break down barriers created by the tree and allow the pathogen to move into previously sound wood. Therefore, the inspector must make a judgement whether the inspection warrants an invasive type of evaluation technique, and where possible, define the method of evaluation when specifying the additional inspection.

Within the cycle of the inspections, it is important that the timing is rotated, and undertaken at different times of year between spring and autumn to enable the trees to be evaluated in various seasons. Therefore, re-inspections will be programmed by reference to the previous year's inspections, and committed strategically to avoid any hazards being overlooked.

2.3 If for any reason surveys/inspections cannot be completed within the programmes timeframe, Arboricultural Officers will report to the Arboricultural Services Manager as soon as is possible.

3 Remedial Works

3.1 Following the inspection, the inspector would propose action: in health and safety terms this would be seen as a control method to reduce risk to the public from falling branches, etc.

3.2 Some degree of risk will be inherent even in a tree with no obvious or identifiable defects. The inspector's task is to evaluate the hazard that the defects pose and the risk of damage to people or property if the tree, or part of it, fails, and to propose appropriate action to reduce the risk to an acceptable level.

3.3 Works prescribed must therefore relate to the assessment of the hazard, and the priority for the works should be appropriate to the Target Zone. However, the remedial work or monitoring specified must also be commensurate with the amenity value of the tree; it is not practical to spend vital resource to maintain or carry out detailed investigations of low value trees, or trees which have minimal useful life span. Furthermore, it is necessary to take into account broader issues such as whether the tree has particular amenity value either in itself, or as a habitat for wildlife.

3.4 There may also be the potential risk of habitat loss or harm to protected species. Cavities and splits may be a potential bird nesting site or bat roost. These species are protected by law under the *Countryside and Rights of Way Act 2000* and the *Wildlife and Countryside Act 1981* and, if they themselves or their resting places are present, no tree works can take place without a risk assessment. This is likely to be particularly significant in the case of veteran and over mature trees, and those providing a habitat for protected species and if necessary include precautions or seek further advice. In general, safety takes precedence over amenity; but that does not mean that potentially dangerous trees must necessarily be felled. There may well be other possible actions that will eliminate or sufficiently reduce the risk remedial works on the trees, visitor management such as zoning, re-routing paths, re-locating car parks or picnic sites, or changing ground vegetation e.g. planting hawthorn, to encourage people away from high risk areas should also be considered. In this way aerial tree works can be avoided, eliminating the need to climb with the risks associated with working at height. These additional options to reduce the risk may be proposed by the inspector as an additional option to tree works to be considered by the Arboricultural Officer. Where the likely risk of harm is very small and the impact of controls very great, it may be reasonable to take no further action.

3.5 In any Target Zone, trees which show obvious signs of imminent collapse or other serious hazards, should be dealt with or controlled immediately by emergency call out (attendance within 1 hour). This may require the use of temporary signing/fencing to keep people and vehicles out of the area until such time as the works can be carried out.

3.6 Works Priority

	Works Priority	Criteria
P01	**Emergency Call Out**	Trees falling into this category would be considered to be an Immediate Risk to public safety – e.g. root plate movement, large hung up limbs over the public highway or partially hung up trees
P02	**5 Day Response**	Trees considered to be a non immediate risk to the public but are exhibiting defects that could lead to structural failure or present a future risk within a short timeframe e.g. trees requiring removal
P03	**28 Day Response**	Trees considered to be a non immediate risk to the public but are exhibiting defects that could lead to structural failure or present a future risk within a medium timeframe e.g. Trees with major deadwood, decay causing pathogens present.
P04 - 27	**3 Month Response – 3 Year Response**	Trees surveyed with timescales apportioned for works to be undertaken between 2 months and three years would be considered routine maintenance and pose no foreseeable risk to the public e.g. crown lifting, removal of epicormics growth, lateral reduction from properties.

Table 2: Works Priority and Criteria

Appendix 3

Guidance for Site Managers- Tree Risk Management Strategy

1 Introduction

1.1 The following guidance is intended for Site Mangers responsible for parks, housing estates and school sites. Whilst it is acknowledged that Site Mangers and their staff routinely conduct regular inspections of their assets and infrastructure, including trees, it is intended that all inspections relating to tree risk operate within a single risk management system which is subject to review and audit. The aim of this approach is to balance proportional management whilst reducing the incidences of foreseeable tree failures across the borough.

2 Tree risk management process

2.1 All parks, housing estate and school sites have been allocated within Zone 1 of Southwark's tree risk management system and subject to the following condition survey inspection frequencies:

Zone 1		
Classification	**Criteria**	**Inspection frequency**
Highway trees	Trees adjacent to roads or footpaths over which the public has the right of access to include streets and lanes as well as main roads and trunk roads	3 years default - 6 months increased frequency
Park trees	Trees located on parks and open spaces with public access	3 years default - 6 months increased frequency
Housing trees	Trees located on housing estate land	3 years default - 6 months increased frequency
School trees	Trees located in the grounds of schools or school playing fields, including 'Forest School' sites	2 years default - 6 months increased frequency

2.2 Default frequencies (3 yearly for Parks and Housing trees, 2 yearly for Schools) are the minimum survey cycles in operation, however individual or groups of trees may require an increased frequency of inspection (up to 6 months) according to their condition. Should an increased frequency be set on any site the Site Manager will be informed.

2.3 Schools will always be contacted by the Tree Section with sufficient notice prior to a survey being conducted. This allows the Site Manager to schedule the survey as appropriate alongside other activities that may be undertaken by the school at any given time.

2.4 As part of the current Service Level Agreement (SLA) between LBS and its LA controlled schools, a report detailing the following will be produced and forwarded to the Site Manager to include the following:

- Tree details (species, measurements, locations etc.)
- Defects
- Recommended remedial works
- Maps

The reports will also be stored on the Tree Section shared drive folder in order to be available for audit and to inform future surveys of the site.

2.4 It is understood that Site Managers and their staff undertake routine inspections of infrastructure and assets on a regular basis. These often include informal inspections of trees undertaken with a basic level of expertise. Whilst it is not expected that informal inspections of trees are recorded, it is important that any concerns are raised with Tree Officers in order for a formal inspection to be undertaken. A formal inspection will always be recorded using the Confirm system and therefore subject to review.

3 Remedial works

3.1 Remedial works are routinely ordered on a monthly basis following the completion of surveys. Works are issued to both Southwark's In house Tree Team and external contractors depending on demand and capacity.

3.2 Schools are able to procure tree work for individual sites through devolved budgets, however LBS recommends that remedial works are processed through the Tree Section in order that records align with assets on the Confirm asset management data base.

3.3 When undertaking inspections Tree Officers and Surveyors have a wide range of options available when setting recommended timeframes in which remedial works are undertaken:

	Works Priority	Criteria
P01	Emergency Call Out	Trees falling into this category would be considered to be an Immediate Risk to public safety – e.g. root plate movement, large hung up limbs over the public highway or partially hung up trees
P02	5 Day Response	Trees considered to be a non immediate risk to the public but are exhibiting defects that could lead to structural failure or present a future risk within a short timeframe e.g. trees requiring removal
P03	28 Day Response	Trees considered to be a non immediate risk to the public but are exhibiting defects that could lead to structural failure or present a future risk within a medium timeframe e.g. Trees with major deadwood, decay causing pathogens present.
P04 - 27	3 Month Response –	Trees surveyed with timescales apportioned for

	3 Year Response	works to be undertaken between 2 months and three years would be considered routine maintenance and pose no foreseeable risk to the public e.g. crown lifting, removal of epicormics growth, lateral reduction from properties.

3.4 Site Managers should have the expectation that remedial works are completed within the timeframes recommended as soon as the survey has been completed and works issued to a contractor. Follow up enquiries can be made as per Section 6 (Contacts).

4 Monitoring

4.1 Monitoring is completed on a monthly basis across all site types against the following criteria:

- School sites: 100% site inspections
- All other sites 20% on site inspections/80% before and after photographs (uploaded by the contactor)

4.2 Any incomplete or substandard works will be subject to a rectification process for completion within one month of issue and monitored at 100%.

5 Reporting

5.1 All incidences of tree failure (in whole or part) must be reported to the Tree Services Manager for recording in the Tree Risk Management Failure Log. This not only ensures that follow up inspections and resulting remedial works are completed, but also allows officers to identify and address areas of concern.

6 Contacts

6.1 To arrange a scheduled or bespoke tree condition survey, or make an enquiry please contact the Tree Section by email:

Trees.Envl@southwark.gov.uk

Appendix 4

London Borough of Southwark Procedure for Tree Risk Mitigation on Privately Owned Trees under the Local Government (Miscellaneous Provisions) Act 1976

1 Introduction

1.1 The purpose of this document is to outline how LB Southwark will respond to reports of dangerous trees on privately owned land. The following procedure should provide an efficient, consistent and clear response to serious events and ensure that our response is in accordance with current legislation, guidance and wider Council policies. The document helps deliver the Council's policy.

2 Legislative background

2.1 All landowners with trees have a legal 'duty of care' to ensure their trees are maintained in a reasonably safe condition. Failure to do so can result in substantial costs for damages if the responsible person is found in court to be negligent.
The Health & Safety Executive (HSE) may also prosecute offenders.
The Council has adopted policies for regular inspection and maintenance of its own tree stock. We believe that this will reduce the chance of trees becoming dangerous and that timely work can reduce overall maintenance costs. We encourage other owners to do the same.

3 Action under the Miscellaneous Provisions Act 1976

3.1 It must be noted that powers granted under the Act are discretionary. LBS will only exercise these powers if a dangerous tree is likely to impact on the highway or Council owned or managed land or property. In all other cases residents will be advised to seek private legal advice in order to resolve their issue.

Request for action

3.2 Anyone requesting that a 'Dangerous tree' is made safe under this provision must make this in writing to the Council. When making a request it is important to provide as much of the following information as possible:

1. Accurate information regarding the location of the tree and the owner's/tenant's name, address and telephone number, if known.

2. If not initially known, make enquiries to supply details of the above if possible.

3. Information regarding the tree's condition:

(i) Size/No. of trees, large branch or small branch etc.?

(ii) The exact position of any fallen parts e.g. are branches on structures, paths or a road?

(iii) Any other visible defects e.g. splits, cavities?

(iv) The extent of any damage, or if the dangerous part failed what would it damage?

Inspection

3.3 An Arboricultural Officer will make an initial assessment of the need for, and urgency of a site inspection based on the information supplied, but in all cases the Council will aim to inspect the tree within five working days of receipt of a valid request. Telephone and other requests relating to 'dangerous trees' will also be dealt with in accordance with the above process, but still need to be followed by a written request before the Council could consider taking any necessary action.

3.4 The legislation confers a right to enter land to carry out such investigations and the relevant Council officers are authorised in its use, including to take other officers/individuals with them as necessary (e.g. for safe working or other reasons).

4 Serving notice under the Act

4.1 If the legal owner of the land cannot be readily determined the Arboricultural Officer will undertake a Land Registry Search for confirmation. Details of the owner, of the dangerous tree and the risk it poses will be forwarded to the Legal and Democratic Services Team who will draft a notice under the Act requiring the owner to mitigate the danger posed by the tree within 21 days of the notice being served. The notice is then served on the owner(s) by recorded delivery.

5 Further action

5.1 As set out above, LBS will endeavour to find the owner of the tree before proceeding with works; however some scenarios will call for urgent action to be taken in order to avoid death, injury or damage to property. In such a scenario the Arboricultural Officer will instruct the Council's Term Arboricultural Contractor to make the tree safe (the minimum works).

5.2 Similarly, if remedial works are not carried out under the terms of the notice within the 21 day period, the Council has the right to instruct its contractors to enter the land and carry out the necessary works.

5.3 Although undertaking remedial works in order to mitigate risk in such circumstances is exempt from the laws protecting trees, LBS will check Tree Preservation and Conservation Area status prior to works commencement and update the Planning Sections Urban Forester as appropriate.

6 Costs

6.1 When works have been carried out, the Council can recoup the costs of the works plus an administration fee. If the owner is untraceable or un-contactable a land charge will be entered against the property for future payment.

6.2 The Council is also able to use these powers to make trees safe or require that trees are made safe on land it doesn't own, where it considers those trees are likely to cause damage to people or property on Council land.

Appendix 5

LBS Storm Contingency Plan

1 Introduction

1.1 This procedure will be co-ordinated by the London Borough of Southwark's Arboricultural Team as appropriate to the expected severity of the storm and the anticipated impact of the number of incidents associated. For the purposes of this procedure the Arboricultural Service Manager of this team will be referred to as the Lead Officer.

2 Met Office Severe Weather Warning

2.1 Currently, the Met Office issues severe weather warnings to the London Borough of Southwark that go directly to London Borough of Southwark Customer Services via the Customer Services Manager and then, within 15 minutes, to London Borough of Southwark's Trees and Woodlands Team. The Lead Officer will ensure that this line of communication is maintained.

The weather forecast can be checked on the following website:

https://www.metoffice.gov.uk/public/weather/forecast/map/gcpvj0v07#?zoom=9&map=SignificantWeather

3 Responsible Officers

3.1 **Appendix 2: Storm Event Stakeholders** shows all of the people and organisations that will have an interest in making sure that a storm event is dealt with efficiently. Appendix 2 also has directions to a group email address that will be necessary during the preparation phase of this Arboricultural Services Manager. Appendix 2 will need to be updated on a regular basis as officers leave and roles change. This is the responsibility of the Lead Officer.

4 Weekend Storm Cover and Overtime

4.1 It is the responsibility of the Lead Officer to ensure that there is adequate cover as outlined in this procedure should a storm event occur at the weekend.

4.2 Leaders of Southwark's Parks Service Provider work at the weekend and will re-prioritise their staff's commitments to provide the Arboricultural Team with assistance as required (see **Appendix 2: Storm Event Stakeholders**).

4.3 All London Borough of Southwark and Parks Service Provider officers asked to assist at weekends or weekdays whether they would usually be working or not will be offered overtime/ time off in lieu for all hours worked including travelling time. Whilst undertaking storm duties the Council will cover all reasonable claims for expenses (meals, mileage etc.). Arboricultural Officers on standby will also receive additional hours as agreed with the Assistant Director of Environment.

4.4 The Service Provider shall ensure that there is sufficient staffing to deal with the emergency at short notice to carry out the necessary works whether during weekdays, weekends or at night. The identities and contact details of all contracted staff engaged in the Storm Event will be forwarded to the Lead Officer in advance of engagement. The Lead Officer will record the hours worked by contracted staff during the storm period and subsequent clear-up in order to ensure accurate associated costs incurred by the Service Provider are borne by the Council.

5 Pre Event Phase: Arboricultural Officer Responsibility:

5.1 The Arboricultural Team will check the Met Office Weather Report/ News regularly to see if there have been any severe weather warnings issued for London and the South East.

If a severe weather warning for London and the South East is issued then:

- Arboricultural Team to organise Standby Officer if there is the possibility of the storm occurring out of office hours. The Standby Officer to ensure that they check the weather reports regularly and keep their work mobile with them and switched on.
- Arboricultural Team to contact Arboricultural Service Provider to ensure that proper lines of communication are open and sufficient resources are dedicated in mitigation.
- Arboricultural Team to prioritise responses (e.g. A Roads, Calls from the Emergency Services, Reports of roads closed due to storm damage) and liaise with the Arboricultural Service Provider.
- Lead Officer to contact stakeholders as set out in section 1.2.1.(Appendix 2)
- Lead officer to organise preliminary storm event response team as set out in section 3 below. Contact information for each officer to be given to the officer on standby as set out in Appendix 1.

6 Pre Event Phase: Arboricultural Service Provider Responsibility:

6.1 The Contract Manager will contact Arboricultural Officers as soon as they are aware of a severe weather warning being issued for London and the South East of England.

6.2 The Arboricultural Service Provider will undertake emergency call outs as set out in the specification. The contracted crew(s) will attend emergency call outs until the number received are too high to be completed within the timescales as set out in the specification. At this point the Service Provider will provide extra crews and notify the Arboricultural Officer on standby, if out of office hours, or the Lead Officer during office hours so that the situation can be monitored or so that a storm event response team can be organised.

7 Dealing with a Storm Event: Arboricultural Officer Responsibility:

7.1 Whether within or out of office hours it will be necessary to mobilise a response team. This should have been organised at the Pre Event Phase. All information on the storm event response team is set out in section 3 below.

7.2 Should the storm occur in the middle of the night the standby officer must call the Service Providers LBB response team and arrange to meet at the office at first light. From there calls can be prioritised and dealt with as set out in point 2.3.5 below.

7.3 Should the storm occur during office hours then it should be dealt with as in point 2.3.5 below:

7.4 Once a decision has been taken to form a response team the officer on standby will need to control how information is forwarded to the emergency call out teams. CSC should be told to record calls as they come in as set out in Appendix 3 of the London Borough of Southwark Storm Strategy and email to the Boroughs Response team. CSC should also be instructed to only send certain emergency calls directly to the Arboricultural Service Provider, the

parameters of this will be set at the **Pre Event Phase**. CSC will be able to call the standby officer should they have any concerns with a particular call.

7.5 Once the storm response team are together they should place all emergency call outs onto an Excel spreadsheet as shown in Appendix 3. Only calls that have been given a priority 1 by an Arboricultural Officer are to be called through to the Arboricultural Service Provider

7.6 The Contractor must ensure that all relevant information is provided to the Lead Officer in order that the Lead officer can ensure it entered onto the spreadsheet so that when the storm subsides a full list of prioritised emergency calls can be sent to the Arboricultural Service Provider. Should the storm occur during office hours then at 4.30pm the Lead Officer must liaise with CSC so that all processed emergency call out information can be passed to them so that they do not call the Arboricultural Service Provider unnecessarily. CSC will need to be made aware of the priority system and that there will be an Arboricultural Officer on standby throughout the night should they need assistance.

7.7 The Lead Officer must also liaise with London Borough of Southwark's Parks Service Provider and agree locations to store debris locally during the storm. Some suitable locations are shown in Appendix 5.

8 Post Storm Event Phase: Arboricultural Officer Responsibility:

8.1 After the storm subsides the full list of uncompleted prioritised emergency call outs should be sent to the Arboricultural Service Provider so that the clean-up operation can begin.

8.2 The Arboricultural Service Provider will assess the list and inform the lead officer on how many crews are available to start the clean-up operation and where if necessary further crews will be provided from.

8.3 The Lead Officer will call in the services of the Community Managers and Community and Conservation Team Leaders if necessary.

Storm Event Response Team

8.4 Guidance for the Lead Officer

Telephone Lines

1. You will need up to four officers to answer the Arboricultural Team's telephones (depending on expected storm impact severity).
2. You will need one telephone line and an officer to take calls from main reception.
3. You will need one officer to liaise with Street Services to make you aware of road closures as closed roads will need to be opened as a priority.
4. You will need to make sure that officer mobile telephones are answered.
5. Each person answering the telephone will be required to electronically populate an Emergency Call-Out Sheet provided by the Lead Officer as shown in Appendix 3 (they will also need to be made aware of the call priorities as set out below).
6. Provision should be made for sending completed sheets (Appendix 3) at regular intervals to the Lead Officer who will prioritise them as set out below.

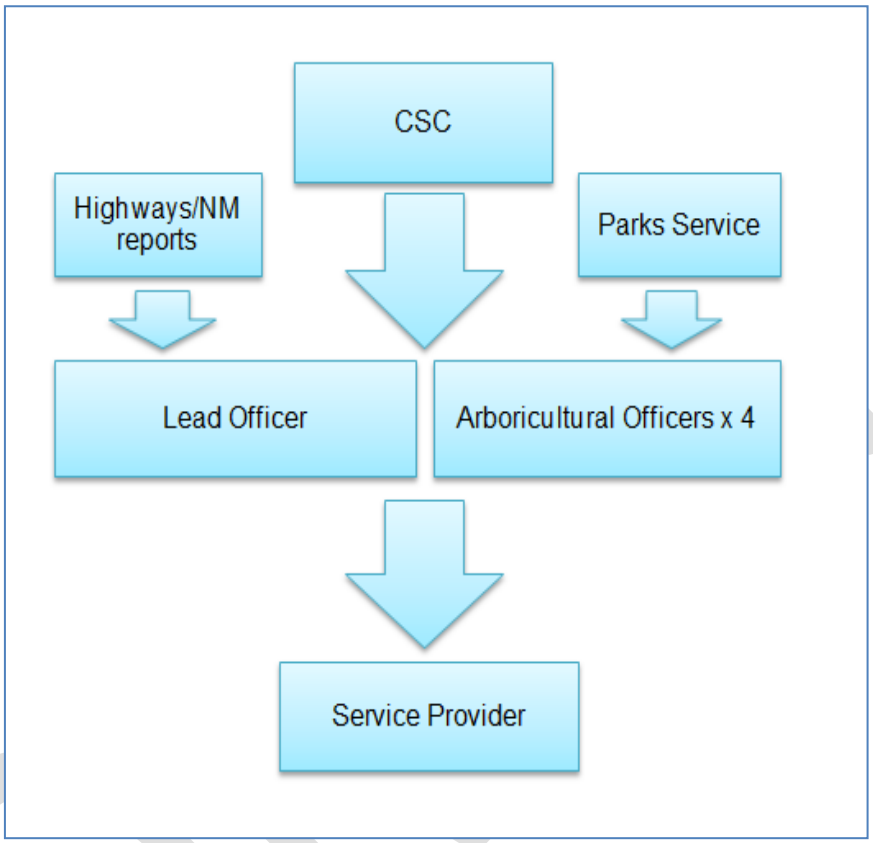
Information Compiling, Prioritising and Resolving

1. You will need one Arboricultural Officer prioritising the calls before they go onto the Excel spreadsheet. This officer will also liaise with the Arboricultural Service Provider so that they only attend the most important emergency call outs.
2. During the storm event unless otherwise requested by the Service Manager the Arboricultural Service Provider must ensure that calls from the Emergency Services, and calls about trees blocking class A Roads (see Appendix 4) are dealt with before other emergency works.
3. Calls about Red Routes to be immediately passed to TFL.
4. All other enquiries should be put onto the Excel spreadsheet and dealt with after the storm has subsided.

Appendix 1: Officer Information for Storm Event Response Team

Storm Event Response Team Template

All officers report to the lead officer.



Lead Officer to provide the following information for each team member joining the Storm Event Response Team.

Lead Officer to email this information to the Customer Service Centre to and distribute to operators as appropriate.

Officer Name:	
Employee No:	
Line Manager:	
Work Contact Tel. No:	
Home Contact Tel. No:	
Home Address:	
Next of Kin:	

Officer Name:	
Employee No:	
Line Manager:	
Work Contact Tel. No:	
Home Contact Tel. No:	
Home Address:	
Next of Kin:	

Officer Name:	
Employee No:	
Line Manager:	
Work Contact Tel. No:	
Home Contact Tel. No:	
Home Address:	
Next of Kin:	

Officer Name:	
Employee No:	
Line Manager:	
Work Contact Tel. No:	
Home Contact Tel. No:	
Home Address:	
Next of Kin:	

Officer Name:	
Employee No:	
Line Manager:	
Work Contact Tel. No:	
Home Contact Tel. No:	
Home Address:	
Next of Kin:	

Appendix 2: Storm Event Stakeholders:

Email Contact Group:

A group contact email address has been set up on the Customer Service Centre network profile under contacts. This should be used in the Pre Event Phase to notify officers from different departments in the council that there is the possibility of a storm event.

Work Area	**Officer required**	**Name**	**Work**	**Mobile**	**Email**

Appendix 3: example of London Borough of Southwark Storm Event Call Out Sheet

House No/locatior	Street Name	Ward	Description of Call Out	Priority	Reported	Date sent to contract	Call out completec

How to use this form

1) Put your name and the date above as required
2) Fill in columns A-D of the table with as much information as possible.
3) During busy storm period please populate the sheet and forward to the Lead Officer.
4) If there is a significant reduction in the number of calls then please forward this sheet as necessary whether full or not.

Column E must be prioritised by a Borough Arboricultural Officer

Column F must be ticked off by the officer inputting the emergency call outs to the database once they have been added.

Appendix 4: London Borough of Southwark Street Services Priority A, B, and C Roads

London Borough of Southwark Red Routes Responsible for by Transport for London

Road Name	Area

Appendix 5: Storing Waste Materials During a Storm

The removal of debris is a necessary process of dealing with storm-damaged trees. During a storm the following hard standing sites within the Borough are available for emergency teams to store waste tree debris. All storage sites must be cleared immediately after the storm subsides. All tree debris must be stored safely with no log piles higher than 1 metre. The Service Provider must also ensure that all car parks are locked after use.

Site	Geographic Area

References and Further information

The Arboricultural Association,2018
Application of Biosecurity in Arboriculture
https://www.trees.org.uk/Trees.org.uk/media/Trees-org.uk/Documents/eBooks/AA_GuidanceNote2_BiosecurityArboriculture-ebook.pdf

Department for Environment ,Food and Rural Affairs,2014
Protecting Plant Health A Plant Biosecurity Strategy for Great Britain
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/307355/pb14168-plant-health-strategy.pdf

Department for Environment ,Food and Rural Affairs,2018
Tree Health Resilience Strategy Building the resilience of our trees, woods and forests to pests and diseases.
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/710719/tree-health-resilience-strategy.pdf