

Borough Tree Strategies

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The London Tree and Woodland Framework.**

**Guidance for Local Authorities on Producing a
Comprehensive Tree Strategy**

Draft

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1.0 Summary

In March 2005 The Mayor of London launched The London Tree and Woodland Framework, a partnership document for London's trees and woodlands produced under the leadership of the Forestry Commission. The London Tree and Woodland Framework highlights as a high priority encouraging local authorities in London to draw up a "Tree Strategy" for the management and care of the totality of the tree resource in their area.

A brief survey of the 33 authorities in London established that to date only 11 authorities in London have actually produced a document entitled a Tree Strategy or Tree Policy. A further 12 authorities are currently at the drafting stage and ten authorities currently have no plans to produce a formal written tree strategy at all. In recent years there have been a number of high profile and informative publications dealing with tree strategies (see appendix A). The most recent of which is the Trees in Towns II report by Dr Mark Johnston and published by Communities and Local Government in February 2008.

All these publications recommend local authorities prepare tree strategies as part of their core policy documentation that support Unitary Development Plan's and Supplementary Planning Guidance. These planning policy documents will shortly be superseded by Local Development Frameworks and Supplementary Planning Documents.

Despite this varied guidance having been available for sometime, many of the tree strategies that have been produced only cover the management of trees in particular geographical or service areas within the local authority. Some only cover street tree management or just trees in woodlands, parks and open spaces. Very few cover all the trees within a local authority's geographical area irrespective of whether they are on public or private land.

The London Tree and Woodland Framework has produced this guidance document to assist local authorities in the task of producing their own Tree Strategy and to make recommendations and suggestions so that the Strategy maximises the benefits trees and woodlands can bring to the residents and businesses of an area.

The core recommendation of this guidance is that in considering the production of a comprehensive tree strategy, local authorities should treat all the trees within their area as a single unified resource, considering them conceptually as coming together to create a local urban woodland. The care, promotion and management of these trees being planned around this concept.

In doing this they will be able to recognise and rationalise the different management techniques and approaches required in each area. At the same time adopting a consistent policy for looking after all the trees on their own land, as well as, where appropriate, using the powers vested in them through the Town and Country Planning

Act 1990 to manage trees that make an important contribution to public amenity on private land.

In this way by viewing each authority's trees as an urban woodland the cumulative effect on the management and resourcing of London trees will be multiplied from authority to authority resulting in an improved, protected and sustainable landscape. These local urban woodlands would then collectively become London's extended urban forest, which will cease to be managed in a fragmented and ad hoc manner and become planned, cared for and protected in a truly holistic and co-ordinated way, for the benefit of all.

2.0 Introduction

For a variety of different reasons connected to commerce, recreation and public health trees and woodlands have for generations played an important role in the lives of Londoners. It is therefore all the more poignant that they are now recognised as playing an increasingly integral role in the lives of Londoners in a London that can expect to face the challenges of climate change in the coming years.

The ability of trees and woodlands in common with other vegetation and types of open space to ameliorate the urban heat island effect and reduce temperature extremes will make the tree in all its manifestations a more crucial element of urban planning and live-styles in the future.

The presence of the tree in London has not in most cases been accidental, although there are locations where benign neglect has created a treescape that would not otherwise have survived. In the majority of situations London's trees have been planted and nurtured over many years and in the case of woodlands for centuries. As a city it currently benefits hugely from the foresight and planning of the Victorian and Edwardian eras.

This legacy of planting and retention of individual trees, trees in parks and also the protection of remnant ancient woodland has placed London in the enviable position of having one of the largest urban forests in the world, certainly the largest urban forest of any capital city in the world.

This urban forest though is under threat as never before from a variety of different factors. The principal ones being:

Development (in all its forms)
Building subsidence.
Climate Change

These factors are very often interconnected and frequently reinforce each other in terms of their negative impact both on existing trees and also on the type and scale of trees that may be planted in the future.

The London Tree and Woodland Framework recommends local authorities produce a tree strategy to direct internal decision making processes and to create a coherent framework of policy within which to manage the tree and woodland (where present) resource under their guardianship

The advice given in this guidance is not intended to be prescriptive and it is recognised that different local authorities will approach the production of a tree strategy in different ways. However, the Framework encourages following a defined process. The inclusion of a number of baseline requirements in any tree strategy are however considered necessary if it is to be effective as a policy document for directing and managing resources and also crucially, providing the basis for a long term adaptive response to climate change.

3.0 Why Have a Comprehensive Tree Strategy?

London is an extremely diverse and complex world city that has a distinct character of its own. It is nevertheless comprised of a large number of historical town centres, suburban districts, private gardens, parks, open spaces, common land and woodlands. These different land use types are criss-crossed by a network of transport routes, major roads, railways, canals, suburban and urban roads, streets and cycle routes.

One of the very few unifying natural elements that exists throughout all these landscape types and functions is the tree. In landscape terms trees exist not only three dimensionally, they also, by growing and attaining size and scale create context and connections across time itself, in many instances from one century to the next. They grow up and grow old within and beyond the human life cycle. Communities and people measure, on a very personal level, their own lives and existence by the visible changes they observe within the trees that surround them.

Unlike any other natural landscape element, trees make inter-generational connections across time and space. Nearly three quarters of London's surface area is land that can accommodate the planting of trees in some shape or form and 20% of London's surface area is actually covered by tree canopy (LBP website). In many senses at a strategic level it is the tree which connects and stitches together London's varied landscape forms. In fact the tree is so ubiquitous in London and covers so many different land use forms it could be said that its continued presence is often taken for granted. It is therefore frequently overlooked and does not receive the recognition it deserves in policy documents associated with many of these individual land uses and functions.

This guidance seeks to redress this deficiency of recognition for the urban tree and aims to place it at the heart of decision making processes that will create London's landscape of the future. Only by doing this will tree's multi-functional benefits be

embedded into London's built environment and be available to the people of London in the challenge of adapting to climate change in the coming decades.

Essentially the role of any tree strategy should be to quantify and value the resource, recognise important areas of work, assist bids for and co-ordinate resources and action respectively to achieve the stated aims and objectives. In local authorities, without this role being provided by a comprehensive tree strategy there is often a lack of resources, joined up thinking and also action. This lack of focus serves to disadvantage existing trees and any trees that may be planned for and planted in new schemes. This evidence base of quantitative and qualitative data is a vitally important step in the setting of priorities and objectives and will become increasingly important with respect to Local Area Agreements and when agreeing local indicators as well.

The nature of individual tree strategies within the boroughs will be as diverse as the city itself. However, in the London context this guidance recommends that there will be a range of components that a Tree Strategy should encompass to be effective.

4.0 Recommended Components of a Comprehensive Tree Strategy

These components are:

Assessment of Current Tree stock

The starting point for producing a tree strategy is the ability to quantify and understand the mix and make up of the tree stock within the boundaries of the area it will cover. Without this information, even in a basic form, it is difficult to create a coherent policy and subsequent action plan that adequately addresses the proposed aims and stated objectives in a strategy. A Borough needs to know what it has before it can begin to plan for where it wants to be in terms of tree and woodland management. A full survey is not always necessary and an overview or random sample is sufficient to start the process.

Valuation of Current Tree Stock

Increasingly, the ability to value a borough's tree stock has been shown to provide tangible benefits in terms of allocation of resources and providing an essential management tool. The lack of value ascribed to the tree resource has traditionally been the stumbling block for many boroughs in producing a tree strategy, as without it the resource has no perceived value, only a cost. The view that trees are only a cost to local authorities has prevailed for many years and in many instances militated against

sufficient resources being allocated to manage trees and woodlands based on their range of benefits and value as a strategic asset.

Geographical Assessment

The strategy should cover all trees within the borough's geographical boundary, whether these are on public or private land. It should also cover the full spectrum of the treescape from individual street and garden trees to stands of trees in parks and if present woodlands. Included within this approach should be an overview of the topographical conditions that exist in terms of opportunities as well as constraints and the implications for the tree resource planted amongst the different land use types.

The six major land use categories recommended in Trees in Towns II (2008) are:

Low Density Residential Areas (LDR).
Medium Density Residential Areas (MDR).
High Density Residential Areas (HDR).
Town Centres and Commercial Areas.
Industrial Areas.
Open Space (including four sub-categories).

These land use categories cover all of the following land use forms that may be found in the urban situation:

Highways, roads, streets, railways, canals, schools, hospitals, institutional buildings, public housing estates, terraced, detached, semi-detached, villas, townhouses etc., industrial and business districts. public open space, private gardens/open space and woodlands.

More detailed descriptions of these categories may be found in Trees in Towns II. 2008, Dr Mark Johnston (published by Department for Communities and Local Government).

Geological Assessment

The strategy should acknowledge and identify the geological strata and sub-surface soil conditions that exist to create the complexities associated with trees planted in urban soil types and adjacent to different geological formations and urban infrastructure.

Benefits of Trees and Woodlands

The strategy should highlight the social, economic and environmental benefits that trees and woodlands bring to an area and the positive improvements for residents that flow from these benefits, in particular in regard to their health and well being. The relatively new initiative of valuing all the benefits that trees and woodlands bring to an area is extremely important. This concept of valuing trees in a borough is based on

sound research and should be included in the strategy to give context, direction and support to the decision making process..

Sustainable Tree Management

It is becoming more and more important that local authorities are able to demonstrate that their activities are being conducted in a verifiably sustainable manner. They should give serious consideration to balancing the negative impact of their activities in terms of contributing to climate change, with the benefits they bring to the community.

Modern management of a unified tree stock following established principles of urban forestry lends itself to the achievement of these goals and no tree strategy is complete without acknowledging the importance of sustainable tree management in assisting boroughs to meet and exceed government's performance indicators in this respect. Boroughs can also make this aspect of their work considerably more effective by working in partnership with their immediate neighbours on such initiatives as tree stations and woodchip biofuel supply chains.

Tree Planting

The planting of trees on land under local authority control and the advice given to private landowners and residents about tree planting is crucial to the success of any tree strategy as it naturally influences long term issues such as species diversity, longevity and succession of the tree stock.

It has also become particularly important in the challenge of adapting to climate change and ensuring that decisions taken on species selection, location etc. are climate change resilient as well as making a positive contribution to climate adaptation and mitigation in the longer term.

Statistics within the Trees in Towns II report show that generally across the UK there has been a trend of planting smaller scale trees when replacing larger broadleaved specimens. This trend does not bode well for climate adaptation if it continues unabated. It is the larger species trees that confer the greatest benefits for urban areas in climate adaptation and also mitigation measures.

Consequently, the planning and delivery of tree planting should be considered as a key area of work that is subject to more detailed control and analysis than has perhaps been the case to date. The information contained within the Mayor's Right Trees for a Changing Climate website should be accessed and disseminated so that the issue receives the widest possible audience.

Sustainable Woodland Management (Certification)

Approaching 8% of London's area is covered in recognisable woodlands. While the majority is concentrated in the Outer London boroughs nearly 33% of undeveloped land in London is woodland, a significantly higher proportion than in other parts of the United Kingdom. Woodland is London's second most extensive natural habitat with over one third of its total being listed as Ancient Semi-Natural Woodland or Ancient Woodland on the Natural England register.

The Mayor's Biodiversity Strategy identifies woodland as being one of the most popular natural habitats in London. However, woodland's popularity does not always mean it is properly resourced or managed. Indeed, many of London's woodlands are in decline due to a lack of any proper management regimes.

Any local authority that has within its ownership areas of woodland, however small, should have within their tree strategy a specific section on sustainable woodland management. This section should highlight the adoption of Woodland Management Plans and Woodland Certification as being the best methods for achieving verifiable and sustainable management of the woodland under local authority control.

Biodiversity

The strategy should reference The UK Biodiversity Action Plan, the Mayor's Biodiversity Strategy and the London Biodiversity Action Plan. It should also reinforce the objectives of any local biodiversity action plans. It should be a central tenet of the strategy that actions undertaken contribute to the overall diversity of wildlife in an area and are not detrimental to the aims and objectives of BAPs generally.

Pests and Diseases

Trees in the urban situation have always been subject to infection and infestation by the many different pests and diseases present in the UK today. As part of normal woodland ecology this may actually in some cases be a beneficial process intimately linked with improved biodiversity.

However, one of the greatest challenges of the future will be to control and contain the spread of pathogens that are not usually found in the UK but have been introduced and are flourishing due to the more favourable conditions associated with climate change. Milder wetter winters, the lower instances of hard frosts, hotter dryer summers etc.

The most recent example is the infestation of Oak Processionary Moth that has been introduced into the UK via a batch of infected oak trees from the continent. These instances will continue to occur and any tree strategy should acknowledge the need to take appropriate measures in good time to limit the scale of the outbreak.

Further advice and information is available from the Forestry Commission's Forest Research Agency. (Contact Details)

Building Subsidence

The strategy should contain a section on the issue of trees and building subsidence. This section should emphasise the local authority's commitment to the retention of important trees wherever possible and set in place a process of critical analysis of the investigative evidence presented by the insurance sector in these cases. The guidance and advice given in the London Tree Officer's Association's document A Risk Limitation Strategy for Tree Root Claims 2007 and also the Joint Mitigation Protocol should be referenced and followed on a case by case basis, treating each case on its own merits.

Climate Change and Adaptation

The strategy should acknowledge climate change is the single biggest threat to the presence of trees in urban areas in London (due to the prevalence of clay sub-soil), while paradoxically also being one of the most challenging opportunities for trees since the great storm of 1987. Using trees in urban spaces as one of the very few natural four dimensional landscape elements that can ameliorate the urban heat island effect promises to be one of the great successes of London's future. Success, however, is not assured and the relationship of trees to urban infrastructure and vice versa and how they will obtain enough water to continue providing transpirational cooling must be planned for if any tree strategy is to contribute effectively to climate adaptation.

Design, Planning and Development

The strategy should address the role of trees and their relative position of importance within the design, planning and development processes and give recommendations as to how they should be accommodated at all the stages of these processes. In London this is crucial if trees are to realise their potential as a tool for climate adaptation. Trees should be factored into new developments and schemes at the very earliest stages of design so that appropriate measures are taken in the design of the buildings and their foundations to allow for the expected scale of branch and root growth.

Landscape trees that grow to a large size confer the greatest benefit in terms of climate adaptation. All new developments in London should be seeking to use tree's innate benefits in this regard as a mechanism for reducing the urban heat island effect locally and reducing the energy consumed by buildings for cooling and heating. In public realm terms they should also be planned for to provide respite from the sun on very hot days.

The London Tree and Woodland Framework's "Right Place Right Tree" initiative should be referenced so that not only are the right trees planted in the right place but that the right places are designed and built to accommodate the right trees for the space.

Aims and Objectives (The Policy).

For a tree strategy to be effective and achievable it must clearly define its aims and objectives and relate these to the particular circumstances that prevail at the time. The action plan for the strategy being written in the context of the desired changes required to achieve the stated aims and objectives. As mentioned above these policy objectives will differ from borough to borough based on individual circumstances. However there will be areas of commonality between strategies on suitable policy objectives. These objectives should, where appropriate be sensitive to the existing character and built form of the areas being considered. Examples of general policies are given below.

Local Authority Structures

The strategy should identify key roles for local authority service areas in the implementation of the Strategy, in particular designating a single service responsibility for strategic oversight and corporate adherence to the Strategy.

This is extremely important in the context of new tree planting. One method for achieving this would be to have all tree, woodland management and tree planning issues dealt with by a single tree section within the authority. This section would also have devolved responsibility for agreeing all tree planting on public land within the authority. Traditionally a number of different services have arranged tree planting across an individual borough's different land use forms and this has in many instances resulted in inappropriate planting creating maintenance and liability issues in the future. Failure to recognise the planting potential inherent in a particular site is also a problem.

The guiding principle should be that the service that will ultimately have responsibility for the upkeep, maintenance and liability for the tree should also agree the species and location prior to it being planted.

Action Plan for implementing the Tree Strategy

Having established the extent and disposition of the resource and the benefits and constraints affecting the urban woodland within each local authority, an action plan detailing goals and delivery mechanisms is essential for directing effort and change. The action plan should make use of prioritisation in delivering these objectives but should also be flexible enough to cope with emerging issues and challenges. (see Action Plan in appendix)

Consultation

The process for producing the strategy should be as inclusive as possible. All services within a local authority as well as local residents groups, local businesses, business groups and strategic partners (Natural England, Communities and Local Government, Forestry Commission) should be consulted. This list of consultees should also include representatives of urban infrastructure service providers- utilities, TfL, representatives of urban infrastructure design and construction-CABE, Urban Design London, Design for London, English Heritage, CIRIA etc. and where appropriate British Waterways and Network Rail. (This list is not exhaustive).

The policies detailed in the strategy should be a distillation of the public will, formed through the consultation process so that the Strategy effectively communicates the prevailing desire to accommodate trees in London's future spaces and places.

Implementation, Monitoring and Review

The strategy should set in place a structure for monitoring the effectiveness of delivery, identifying obstacles to delivery, monitoring achievements and reviewing processes and procedures wherever this is necessary.

To be in accordance with the London Tree and Woodland Framework all the elements mentioned above must be addressed and brought together for any comprehensive tree strategy to be effective and deliver the long -term benefits sought.

It is not however necessary for all of these components to be actioned at the outset of developing a tree strategy, although they should all be considered during the process. Some may be incorporated at a later stage, in a measured way, dependent on resources so that the staged process detailed below ultimately results in a strategy that is representative and tailored to the local area. (see the Action Plan in appendix)

5.0 The Policy Context for Developing a Tree Strategy

Any strategy that purports to give advice, guidance and make recommendations on how any organisation is to manage and care for a natural resource in its guardianship needs to be set into the context of contemporary policies at a local, regional, national, and even international level.

One purpose of the strategy is to draw together the relevant elements from any overarching policy documents and identify which elements can be used and reiterated to give the strategy, direction, purpose and authority.

All these policy documents should reinforce and compliment one another and a tree strategy is no different in this respect. The strategy should be devised to compliment and become integral to the suite of documents produced by local authorities to demonstrate commitment and action on issues that are matters of concern.

The International Context

Currently there are a number of international agreements and protocols covering trees, biodiversity and issues relating to climate change (see appendix) that may inform and influence the production of any new tree strategy.

Principal among these are:

- 1. Rio Declaration on Environment and Development (UNCED), Rio De Janeiro June, 1992.**
 - i. Sustainable Development-Agenda 21 .
 - ii. Statement of Principles for a Global Consensus on the Management, Conservation and Sustainable Development of All Types of Forests, June 1992.
 - iii. Rio Convention on Biological Diversity, Rio de Janeiro June 1992.
- 2. United Nations Framework Convention on Climate Change. (Kyoto Protocol 1997).**
- 3. A Sustainable Europe for a Better World.**
 - i. A European Union Strategy for Sustainable Development. (May 2001)
- 4. World Summit on Sustainable Development 2002.**
 - i. The Johannesburg Plan of Implementation.

The National Context

National guidance on the care of trees and woodlands comes in a number of forms.

The Government's publication of its White Paper "A Better Quality of Life" which emphasises the effective stewardship of natural resources sets the tone for local authorities to examine their guardianship of a resource that they are custodians of for future generations.

Additional documents include:

1. Sustainable Development The UK Strategy 1994.

2. Biodiversity the UK Action Plan 1994.

The UK's responses to the Rio Earth summit that details central government's strategy for ensuring the UK meets its obligations under the Rio Declaration.

These are in turn reinforced by the general guidance given in Planning Policy Statement 9 (formerly Planning Policy Guidance), a Strategy for England's Trees Woods and Forests 2007 and A Woodfuel Strategy for England 2007 .

3. Planning Policy Statement 9.

PPS9 specifically identifies Veteran trees and Ancient woods as being matters for special consideration and protection in the processing of planning applications that may affect them.

4. A Strategy for England's Trees, Woods and Forests 2007.

Produced by defra The ETWF Strategy deals specifically with the Government's aims and priorities in respect of trees and their national importance for achieving a range of public benefits which include health, biodiversity, woodfuel and climate adaptation.

The ETWF is complemented by a Delivery Plan which is managed jointly by The Forestry Commission and Natural England. It details how the ETWF Strategy will be achieved over a five year period.

5. A Woodfuel Strategy for England-Forestry Commission England 2008.

Produced by the Forestry Commission in response to the Biomass Task Force Report (April 2006), A Woodfuel Strategy for England is the Government's strategy and implementation plan for securing the interventions necessary to increase the amount of biomass made available through the woodfuel supply chain.

The Regional Context

In the context of London the Regional policy documents are:

- 1. The Mayor's Spatial Development Strategy for London –The London Plan.**
- 2. The Mayor's Biodiversity Strategy.**
- 3. Connecting Londoners with Trees and Woodlands -A Tree and Woodland Framework for London -produced jointly by the Mayor and the Forestry Commission.**

1. The London Plan.

The London Plan is the Mayor's Spatial Development Strategy for London. It sets out the Mayor's Vision for the future development of London. It was published in February 2004 and Further Alterations to the London Plan are currently under review.

The London Plan emphasizes the importance of London retaining and enhancing its position as a world city with a significant green infrastructure. It highlights good design and planning as the way to achieve this.

2. The Mayor's Biodiversity Strategy-Connecting with London's Nature.

The Mayor's Biodiversity Strategy was published in 2003 and is the first regional biodiversity strategy with a statutory basis. The document details the Mayor's vision for protecting and conserving London's natural open spaces. It highlights London's woodlands as being one of the most recognisable and important resources for biodiversity in the capital.

Within the Biodiversity Strategy, proposal 26 states that working with partners a framework for London's trees and woodlands will be prepared.

3. The London Tree and Woodland Framework.

Published in March 2005 the London Tree and Woodland Framework is a unique document within the UK in that as well as being the Mayor's guiding document for trees and woodlands in London, it is also The Forestry Commission's Regional Forestry Framework for the London Region. As such it is the only Regional Forestry Framework that deals solely with urban tree and woodland issues.

It is a living document that responds to the challenges and issues affecting London's trees and woodlands as and when they arise. It also identifies a number of aims and objectives that are considered and prioritised through the implementation of an action plan.

Its role is to provide a strategic overview and provide guidance and direction on major projects, issues, conflicts and constraints that affect trees and woodlands in London. It achieves this by securing a galvanisation of effort amongst its partners and stakeholders to achieve the best possible outcomes for trees and woodlands.

The Local Context

The local policy situation with respect to trees and woodlands will be governed by the following partnerships and documents:

1. Local Strategic Partnerships

Local Strategic Partnerships are the mechanism by which individual local authorities will direct their effort and resources into the issues and challenges that matter most to the residents, businesses and communities within their areas. They will set the objectives and priorities of the Sustainable Community Strategies. Membership of LSP will normally be reserved for public sector agencies or relevant NGO's e.g Police and Fire Services, Primary Care Trusts, Natural England, Environment Agency, Friends of the Earth, etc.

The local authority and these bodies should however be engaged by interested residents groups such as Conservation Societies or Friends of Woodlands groups so that their views are represented when objectives within the Sustainable Community Strategies are set and these then influence the Local Area Agreements.

There is a surprising amount of common interest between the aims and objectives of these strategic public sector agencies and the public's desire to have a landscape with trees in it together with safe, biologically diverse, crime free, accessible woodlands that encourage a healthy lifestyle. Sustainable tree and woodland management is a "good story" for local communities and should be developed through these initiatives.

2. Sustainable Community Strategies

Sustainable Community Strategies will be the expression of Local Strategic Partnerships intention to direct change and focus effort on particular areas of work. In consultation with local people Sustainable Community Strategies will set objectives and priorities for action. It is this stage of the process, during consultation on the Community Strategies that offers the most opportunity for tree orientated residents associations and friends of woodlands groups to influence their local authority and develop better resources for the trees and woodlands in their area. By working through Local Strategic Partnerships, engaging in the consultation process and championing sustainable woodland management, Friends of Woodlands groups can make an invaluable contribution to the communities in which they live and work as well as improving the quality and access of their particular woodland.

5. Local Development Frameworks.

6. Supplementary Planning Documents (Trees).

Borough's should use LDF's and SPD's to highlight their overall general policies for trees and woodlands within their areas. These documents will specify strategic policies with little detail or explanation. Their introduction is intended to reduce the amount of policy documentation a local authority has to amend and revisit on a regular basis.

7. Tree Strategies and Open Space Strategies.

Policies contained in LDF's and SPD's will be expanded upon and reiterated in specific open space and tree strategies, providing the context, detail and action plans necessary for the achievement of the policy objectives specified in the parent documents listed above.

The development of open space strategies should not be viewed as a reason to avoid producing a separate specific tree strategy, indeed the two are complimentary and should sit side by side as local policy documents. Open space strategies cover broader landscape and habitat issues while tree strategies cover the details of management and the benefits and constraints of trees and woodlands in the urban context.

Local Area Agreements

When negotiating with the Government Office for London on which targets to designate as their performance indicators within the Local Area Agreement local authorities should consider integrating effective and sustainable management of trees and woodlands as one element within their chosen key indicators. These could relate to adapting to climate change, improving local air quality and biodiversity (National Indicator set numbers 188, 194 and 197 respectively).

They can reinforce these performance indicators by ensuring that following consultation through the Local Strategic Partnership the Sustainable Community Strategy recognises the importance of trees and woodlands and further specifies them as one of the local authorities chosen Local Indicators

Due to the ubiquitous nature of trees in the many different land use forms and the high regard the general public have for trees in general and woodlands in particular, achieving sustainable management of this resource as one element within their chosen key Performance Indicator or Local Indicators would be a very powerful measure of a local authority's commitment to sustainable environmental management.

It would also bring with it real benefits in terms of spin off projects and initiatives that could only be achieved through setting these standards for delivery.

There are a number of verifiable standards of Certification for sustainable management of trees and woodlands (see appendix b- Forest Stewardship Council- FSC and United Kingdom Woodland Assurance Standard- UKWAS), that when complied with allow the local authority to demonstrate a serious commitment to the regional, national and international policy objectives detailed above.

In certain instances by undertaking the process that leads to Certification the local authority can also place itself into the position of being eligible for Forestry Commission grant aid that it may not otherwise have been able to access.

If Certification within a particular authority is deemed inappropriate then designating some other tree related Performance Indicator or range of Local Indicators will also be a valid measure of the local authority's commitment to these principles. Examples of Local Performance Indicators could be:

Non woodland sites

- Numbers of trees covered by new Tree Preservation Orders
- Percentage of tree cases successfully defended from unwarranted building insurance claims as a measure against all claims.
- Maintenance of a positive balance between tree removal and replacement so that more standard trees are planted annually than are felled.
- Annual maintenance of a varied age range structure throughout the urban tree population (by agreed percentages).
- Annual maintenance of a varied species structure throughout the urban tree population (by agreed percentages).

Woodland Sites.

- Annual percentage increase in active management of woodland present (per half hectare)
- Annual increase in visitor numbers to woodland as a result of effective marketing, open day, promotion etc.
- Area under Grant aided management plan
- Area covered by management plan

By choosing to link effective and sustainable tree and woodland management to its performance measurement, whether locally or nationally by comparison, a local authority will be well placed to deliver tangible benefits to the communities it represents. It will also be able to demonstrate excellent value for money when all the financial and other benefits of its actions are considered and weighed against its expenditure in providing these benefits.

6.0 Development of a Comprehensive Tree Strategy.

The development of a Tree Strategy by a local authority may take a number of different approaches. Whatever approach is taken it should be a process that can be conducted in a modular or staged way. Many local authorities have not produced tree strategies primarily due to a lack of resources in either funding or officer time, usually both. In boroughs that have a lack of resources there is also an understandable reluctance to begin a process that it may be unsure of seeing through from start to finish.

By approaching the development of a tree strategy in stages the process can be undertaken in manageable tranches of work that may make better use of the resources available. Spreading the workload over a longer period in designated stages makes producing the strategy more achievable. Staff turnover should not then interrupt the continuous development of a tree strategy even over a lengthy period.

The length of time it takes to produce a tree strategy will of course depend on the complexity of the borough, whether woodland management plans are required, the detail included within the strategy and the resources available at the time to deliver the final document.

The London Tree and Woodland Framework recommends tailoring the development of a borough's tree strategy to suit its needs and resources. Some components of the strategy listed above may be left until resources allow or may be dealt with in a less resource intensive way.

A previous publication on tree strategies, the Department of the Environment's "Urban Tree Strategies" Research for Amenity Trees No.3 states that the preparation of a tree strategy may take anything from 3-4 months onwards. Islington Council took 3 months to produce a tree strategy before it could be agreed at Committee as Council policy, this process took a further 3 months.

The Strategy highlighted in Trees in Towns II as best practice (Newcastle City Council's Tree Strategy) began development in 1996, was published for consultation in 2001 and finally adopted and published as policy in 2002, a process of 6 years.

Production timescales will differ from authority to authority, the most important thing in development of a strategy is a planned and staged approach. The overall timescale is less relevant and can be adjusted to suit most requirements. It will be for each individual authority to decide which components it considers are most relevant to get the process started.

The London Tree and Woodland Framework advocates following a seven stage process as the best and most achievable way of initiating the development of a tree strategy in a resource poor situation. These stages are:

1. Stage 1.

Create a receptive environment for the production of a tree strategy.

2. Stage 2.

Collection and desktop analysis of relevant information.

3. Stage 3

Formulation of policy aims and objectives.

4. Stage 4.

Delivery of draft tree strategy document.

5. Stage 5.

Consultation and amendment.

6. Stage 6.

Formal adoption of tree strategy.

7. Stage 7.

Implementation, Monitoring and Review.

Stage 1.

Creating a receptive environment for the production of a tree strategy

This should involve:

- Seeking political support for the tree strategy.
- Appointing a tree champion/advocate from within the borough. Preferably a designated Councillor, Committee Chair or best of all the Council Leader.
- Obtaining formal Cabinet level backing for producing a Tree Strategy.
- Setting up a tree strategy working group.
- Identifying one key service area for the management, delivery and monitoring of the tree strategy.
- Drafting an Action Plan (see appendix) for the production process with targets and designated milestones.

The amount of political support available for the production of a tree strategy may make the difference between it receiving adequate resources and officer time or just being another work stream that needs to be fitted into the day to day workload. This support is not crucial to the production of a tree strategy and many authorities have produced them without such support.

It is, however, an opportunity to obtain high level backing for an area of work that will become increasingly important in terms of climate adaptation and the public's perception of positive local authority initiatives particularly with respect to woodland management.

Stage 2.

Collection and desktop analysis of relevant information

- Identify the physical limiting factors that prevail in the local authority's geographical area that may influence the future planting and management of trees and woodlands:

This should cover: topography (scale of buildings, roads, rail, urban infrastructure etc), geography (slope, elevation, hydrology-groundwater, rivers, and drainage etc.) and geology (urban soil profiles, underlying strata and specific British Geological Survey designations).

- Categorise the various land use forms and map the sub-soil and any geological anomalies beneath them.

This should cover property categorisation:

Low Density Residential Areas (LDR).
Medium Density Residential Areas (MDR).
High Density Residential Areas (HDR).
Town Centres and Commercial Areas.
Industrial Areas.
Open Space (including four sub-categories).

- Make a qualitative and quantitative assessment of the current tree and woodland stock within each land use category. If no detailed records are available undertake a statistically significant random sample on each major land use form.

This should cover: numbers, species diversity, age classes and designated value of tree stock within specific land use categories. If a detailed survey is not possible take an overview that is representative.

- Undertake a desktop collation exercise of the above information and all other data and information on trees and woodlands that is held by the local authority or publicly available.

This should identify: overall tree population and its value, estimates of species breakdown, age classes, average tree density per hectare, numbers of trees covered by preservation order, area covered by conservation areas, size and disposition of woodlands, numbers and general locations of tree related insurance claims, identifying building movement “hotspots” related to geological data. Differentiate clay desiccation related movement from areas where sub-soil data indicates other factors may be involved.

Produce an overview of the resource together with brief information on the issues, limitations and opportunities for trees and woodlands within each land use category.

Stage 3.

Formulation of Policy Aims and Objectives

These should cover:

- Sustainable management of the tree and woodland stock through a recognised and verifiable certification scheme. This should be the cornerstone of all policy statements.
- Policies for all the trees within the authority’s geographical area consistent within each land use type whether the trees are on local authority land or private land.
- A statement of intent that the local authority will seek to use its own policies and national guidance where appropriate to protect trees from unnecessary felling or disfigurement.
- A statement of intent that the local authority will seek to increase tree cover where appropriate by annually planting more trees than are felled in any one calendar year.
- A statement of intent that in managing the trees under its control the Council will take account of the predicted impacts of climate change to ensure a continuation of large scale canopy cover with a diverse species and age range.

Examples of appropriate policies are:

Generally

1. The Council will manage all trees and woodlands within the local authority as a single unified resource, conceptually treating them as a sustainably managed urban woodland.
2. The Council will use a recognised community tree valuation system to place a value on individual trees and through this a value on the entire local authority owned tree population.

3. The Council will apply rigorous analysis of the site investigations when dealing with tree related building damage claims whether on local authority trees or trees covered by tree preservation order. It will link the level of site investigations requested with the value of the implicated tree (see appendix- LTOA RLS and Joint Mitigation Protocol).
4. The Council will ensure that all works undertaken on publicly owned trees or protected private trees will be done in accordance with BS 3998 Recommendations for Tree Works.
5. The Council will ensure all development and construction work impacting on trees will be done in accordance with the recommendations of BS 5837 Trees in Relation to Construction.
6. The Council will ensure all work for utility services affecting trees will be undertaken in accordance with the guidelines published by NJUG, Volume 4 Guidelines for the planning installation and maintenance of utility apparatus in proximity to trees.
7. The Council will investigate opportunities to encourage the use of woodchip biofuel that may be sourced from arboricultural arisings from tree work and the implementation of woodland management plans.
8. The Council will develop a co-ordinated approach in all its activities that recognises the multi-functional benefits trees bring to the community and the importance of trees in local climate adaptation strategies.

On local authority land

1. To produce management guidelines for highway trees and trees in the various land use categories.
2. To produce management plans for woodlands.
3. To undertake regular safety inspections of all local authority trees in the land use categories. The frequency range of these inspections being a function of the graded analysis of threat to the public covering perceived target area, frequency of public use and appreciation of duty of care.
4. To annually plant more trees than are removed within the different land use categories
5. To plant a mix of species and provenances that are climate change resilient in line with the guidance provided by The Mayor's Right Trees for a Changing Climate initiative.
6. To follow the guidance in LTWF Right Place Right Tree initiative.

On Private land

1. To make tree preservation orders to protect trees of high amenity value from unwarranted felling or disfigurement.
2. To encourage private tree owners to undertake regular safety inspections of trees in their ownership. The frequency range of these inspections being a function of the graded analysis of threat to the public, perceived target area, frequency of public use and appreciation of duty of care.
3. In granting consents for new developments on clay soils use planning conditions to ensure that new buildings are constructed on foundations that are adequate to accommodate the presence of newly planted landscape trees of a large species type such that they can be allowed to grow to maturity.
4. In granting consents for new developments use planning conditions to ensure the location of new services to the development does not damage existing trees or preclude the planting of new trees of a large species type.
5. In granting consents for new developments use planning conditions to ensure the planting of a mix of species and provenances that are climate change resilient in line with the guidance provided by The Mayor's Right Trees for London's Changing Climate initiative.

Stage 4

Delivery of Tree Strategy document (Drafting).

This should cover:

- Revision and amendment of the Tree Strategy Action Plan based on the working party drawing conclusions on the direction and emphasis of actions required to fulfil the aims and objectives listed above.
- The working party identifying priorities for action.
- Identification of chapters and sub headings for the tree strategy document.
- Specification of policy.
- Drafting of the document by a designated individual member of the working party.

Stage 5.

Consultation and amendment

This should cover:

Consultation

- Distribution of the draft Tree Strategy to the widest possible audience for comment.
- Publication of a deadline for comments.

Amendment

- Tree Strategy working party considering tabled amendments.
- Amendment to policies and/or text.
- Final drafting of policies based on the results of the consultation process.

Stage 6.

Formal Adoption of the Tree Strategy

This should involve:

- Ratification by Cabinet or relevant Committee.
- Publication on the Council's website
- Integration into and referenced by other Council policy documents e.g. Local Development Frameworks and Supplementary Planning Documents.
- A summary of the Tree Strategy should be produced as an SPD.

Stage 7.

Implementation, Monitoring and Review.

This should involve:

Implementation

- The adopted tree strategy is referenced during the planning process in respect of planning applications, inquiries, full planning application appeals and the tree preservation order appeal process.
- All decisions and actions to manage the tree stock across the local authority should be underpinned by the policy statements contained within the tree strategy.
- The adopted tree strategy is referenced during correspondence on local authority owned tree related subsidence claims as the Council's considered process for managing its trees and dealing with such claims.
- The adopted tree strategy is referenced during tree preservation order compensation claims as the Council's considered process for managing its trees and dealing with such claims.

Monitoring

- The local authority's key service designated with carrying forward the tree strategy should set in place a process for monitoring policy implementation across all the council's service areas.
- An annual analysis of tree removals and tree planting is undertaken to reconcile the numbers and types of species felled with the numbers and types of species planted across the land use types

Review

- Undertaking a detailed analysis of the monitoring information.
- Identifying obstacles and barriers to implementation and delivery of the policy contained within the tree strategy.
- Reviewing the strategy every five years.
- Making recommendations for amendments to the policy or practice to allow for these factors.

7.0 Financial Savings via Asset Management.

Traditionally the management of the tree and woodland resource within local authorities has been viewed as solely a cost to the local authority and the community it serves. While the esoteric benefits of trees and woodlands have for many years been recognised and appreciated the balance sheet has always indicated expenditure with no perceived financial benefits.

This approach has often militated against trees being regarded as strategic financial assets that benefit the community as a whole and therefore have the ability to draw in resources, commitment and funding commensurate with their value.

In many instances in the urban realm trees are identified as potential liabilities in terms of building and infrastructure damage, trip hazards, management costs etc.

The London Tree Officers Association in its document A Risk Limitation Strategy for Tree Root Claims advocates undertaking a cost benefit analysis by considering cost of claims for building and infrastructure damage against costs of expenditure.

Those authorities that followed planned proactive management regimes (for street trees) as advocated by the majority of published tree strategies were able to demonstrate cost savings in the region of 18.5% over those authorities that did not have planned maintenance regimes. This was achieved at the same time as increased retention of trees implicated in claims that would otherwise have been removed, had there been no planned management regime.

By following an agreed process of strategic asset management as laid out in a comprehensive tree strategy a local authority can demonstrate cost effective allocation of resources to the areas of greatest need while at the same time reducing costs from claims and improving its environmental credentials by retaining trees.

Defra's recent publication "An introductory guide to valuing ecosystem services" highlights the need to appreciate the current and also future value provided by ecosystems services and uses an example from the Forestry Commission on the value of benefits provided by forests and woodlands to the people of the UK nationally, currently estimated at £1 billion annually.

Incorporation of a tree population's total overall value as calculated by a designated valuation system into the cost benefit analysis can only improve the status of the tree resource in the authority's list of priorities.

In asset management terms it is deemed appropriate to allocate a budget figure that is a percentage of the asset's total overall value to the management of the resource. This is recognised as prudent to maintain the resource efficiently and avoid increased costs associated with lack of maintenance and asset degradation. An accepted percentage varies dependent on the value of the asset itself but generally lies in the range between 1.5% to 4% of the resource's Total Asset Value (TAV).

This principle of creating savings by application of asset management techniques is accepted with the engineering world for maintaining infrastructure but has never been applied to the management of trees because until recently entire populations of trees had never before been valued in the UK.

The recent report by Dr Mark Johnston, Trees in Towns II (published by DCLG) highlights the requirement for local authorities to set tree management budgets that are commensurate with the value of the resource. This is a new area for tree management but one that deserves special attention due to the importance being attached to trees in respect of climate adaptation in urban areas and also their potential for creating substantial liabilities if they are not managed and maintained adequately.

The approach of valuing the tree stock, applying recognised asset management processes together with appreciation of the results of the cost benefit analysis process will allow local authorities to make financial savings by retaining trees that should be retained and at the same time commit adequate and appropriate resources in the avoidance of future costs through the management of retained trees before those costs are incurred.

This should result in a healthy tree population with a diverse age and species structure that provides a wide range of benefits to the communities in which they grow.

8.0 Tree Strategy Action Plan

The attached Action Plan in the appendix is intended to give those local authorities who have yet to develop a tree strategy informed guidance on the process, timescale and resource implications involved in producing one.

It is a guide only and it may be that some authorities commit less or more resources as indicated dependent on their own particular circumstances and priorities. It should be used to encourage, direct and inform decision makers on a course of action towards producing a tree strategy particularly where resources are limited.

The allocated timescales are minimum estimates for basic task completion and may be extended to if resources are available. In total the projected process is scheduled to take approximately six months with a further two months allocated for the consultation process.

9.0 Conclusion.

Dr Mark Johnston's document *Trees in Towns II* (published by DCLG) states that 52% of local authorities in the UK have tree strategies that cover their entire geographical area. However, there was considerable variation in the content, detail and scope of these strategies in respect of the different land use forms.

What is required is for all of London's local authorities that have significant numbers of trees and woodlands to develop comprehensive tree strategies that recognise the many benefits trees and woodlands provide and that set out practical and target based policies in the achievement of their aims and objectives

It is hoped that by following the guidance provided in this document and in particular making practical use of the action plan those local authorities that have yet to develop a tree and woodland strategy in London may begin to do so. They may do this using whatever resources are available in the expectation that even the most basic tree strategy will be beneficial and can be reviewed, updated and enhanced when resources allow.

Those authorities that are able to commit resources to the development of a comprehensive tree strategy may do so in the knowledge that they will be making an investment that not only returns improved environmental benefits but significant financial savings as well, following implementation.

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