Taking Our Place in London

Waltham Forest Tree Strategy

2010 - 2020

A strategy for
the planning & management
of the borough’s urban forest

December 2010
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Foreword

Worldwide, urban trees are under threat from pollution and development, and tree coverage may be declining. In Waltham Forest our urban environment is uniquely placed to go against this trend.

For generations, the borough now known as Waltham Forest, has expressed its pride in our natural heritage through programmes of tree planting and naming public buildings and streets after valued native species. When the new borough was formed in 1965 Waltham Forest – the ancient name for Epping Forest - was adopted and the tree became our borough emblem. This showed the new borough’s clear desire to retain a strong green element in its municipal character. And how better than through the tree – a universal symbol of life. Since then, while more is understood about the benefits trees bring and their value has become widely acknowledged, simultaneously their existence is threatened.

When they are well chosen and looked after, trees make streets and green spaces look more pleasant and more cared for and, as a consequence, these areas are valued by the people who live in them. When residents are kept informed about the planting and management of trees in their area a sense of ownership by the whole street is engendered, encouraging a more caring and considerate attitude to the whole environment around them, including the built environment.

Trees contribute to the natural environment in many ways, improving air quality, quality of life for residents and biodiversity. The canopies of our trees reduce temperatures in the summer and provide shelter from the cold in the winter. As they grow, trees absorb harmful carbon dioxide and help keep the air around us clean and fresh. On busy streets they catch dust and pollution from vehicle exhausts. The soothing shade of a single large tree can make a busy square a place that people want to be rather than escape from. A line of trees can turn a large field into a park to lie back and relax in. Trees are homes to thousands of species of birds, insects and small mammals that contribute to maintaining the vital natural life of our borough and join it up with nearby open spaces and rural countryside.

Overall, a great many of our residents make their views on trees known to the Council; either loving them or complaining about them, and frequently both at the same time. They are telling us that if we have trees we should look after them well so that we can enjoy their loveliness and minimise the nuisance they may cause if not cared for or if unsuitable species have been planted.

We have some of the most pleasant residential streets in East London thanks to the foresight of previous generations and the persistence of a small but dedicated staff. But we also have to address the need to prevent our tree stock becoming a nuisance or a danger to people and property. This strategy sets out where we are now with a very large tree stock in various stages of their life cycle, and what we need to do to bring it to a sustainable condition. It also sets out how we can improve our management practices.

Trees are costly to plant and maintain but they are a borough asset worth treasuring. Very practically this strategy sets out how the Council intends to manage and maintain our tree stock over the next decade. It will not be a static document and will be reviewed and updated periodically as the tree stock changes and new information is gained.

Finally, the strategy recognises that residents generally like to have trees nearby and many want to get involved in their care, particularly in the planting of new trees in order to create a legacy for future generations.

Cllr Geraldine Reardon
Cabinet Member for Leisure, Arts & Culture
Executive Summary

Introduction
The Waltham Forest Tree Strategy is a key document for the borough setting out a framework for the planning and management of the borough’s urban forest. The Council is committed to the high quality and proactive management of its tree stock and has defined its vision for the future of trees and woodlands in the borough as:

Trees will become a key defining feature of the borough for both current and future generations and the urban forest of Waltham Forest will be protected and enhanced.

Part One – Context
Part one sets out the context for the strategy. It starts by summarising the value of trees in urban areas explaining the social, economic and environmental benefits of trees and explaining why managing the urban forest is so important. In monetary terms, the value of each of London’s street trees has been estimated as £8-10,000 which translates to a total value of approximately £160 million for the borough. Trees are clearly a very valuable asset for the borough and need strong management, protection and planning to ensure they continue to thrive in the future.

A policy context is provided which identifies the national policies relating to climate change, health and well-being and biodiversity which have driven the need for the strategy. National and regional policies are also identified and a summary provided of the issues that the tree strategy needs to address.

In section 1.4 a summary is provided of the borough’s tree stock. This identifies that the borough contains a substantial amount of tree cover including areas of important woodland, approximately 20,000 street trees and a large number of trees in public open spaces and private gardens. Together, these trees form the borough’s urban forest and have a major influence on the way the borough looks and feels for the people that live and work here.

Although trees bring many benefits, they also bring potential problems such as upheaval of pavements, overshadowing of properties, leaf and fruit fall and potential to cause subsidence damage to properties. Part one concludes with a summary of the current tree issues that the borough is facing.

Part Two – Strategies
Part two sets out a vision and objectives for the strategy followed by policies. Seven objectives are identified:

• Improve protection of trees within the borough;
• Ensure current level of tree cover in the borough is increased;
• Raise quality and safety of the borough’s tree stock;
• Raise profile, value and understanding of trees and tree issues in the borough;
• Increase efficiency and cost-effectiveness of tree services section and procurement of tree management and maintenance works;
• Support the creation of east-west green corridors across the borough; and
• Reduce the number of claims for tree-related subsidence.
Approximately sixty policies are set out which explain the Council’s approach to the management and protection of existing trees and planting of new trees. Policies cover both Council owned and privately owned trees.

General policies are provided on the management of Council owned trees including street trees and those on housing, education sites and in open spaces. These policies will ensure that there is consistency in the management of the Council’s trees across the borough.

Policies are provided on the management of the borough’s street trees. Trees will be inspected on a three year cycle and managed as necessary to maintain them in a safe and healthy condition and details are provided of the type of management works that will be undertaken. The types of tree works that the Council will not normally undertake are also identified. The latter includes pruning works to improve satellite reception, removal or pruning of trees that drop fruit or sap and removal or pruning of trees to increase sunlight reaching a garden or property.

A key objective of the tree strategy is to increase tree cover in the borough both as a way of mitigating the potential effects of climate change and to create a greener more pleasant environment with greater biodiversity value. Policies are set out to support new tree planting and identify strategic priority areas for new planting. In particular, these will focus on the areas of highway improvement schemes including the Olympic Approach Routes and the High Street Life project (which runs north-south through the borough). Areas of social and economic deprivation are also identified as priority areas together with open spaces, educational sites and housing land.

To avoid problems with trees in the future and ensure that trees establish well, it is important that the right types of trees are planted and in the right place. Every location is unique and will require careful consideration of the site, ground conditions, soil type, character of the local area etc. Policies are set out which encourage the planting of native species and large forest-scale trees if conditions are suitable but in many cases they will not be and alternative ornamental species will be more appropriate. A list of suggested species for street trees is provided together with a policy that advice from an arboriculturist should be sought on species and location of tree planting.

Part two concludes with policies on the management of claims for tree-related subsidence. This sets out how claims will be handled and the information needed to accompany a claim. It is based on guidance from the London Tree Officers Association.

**Part Three – Delivery**

Part three sets out how the tree strategy will be delivered. An action plan takes the seven objectives of the tree strategy and identifies actions required to support the delivery of these. Actions range from relatively small actions such as promoting National Tree Week and improving the Council’s web pages on tree services to major actions such as establishing a new six year contract with a private contractor to deliver arboricultural services for the borough.

To be effective and successful, the tree strategy needs to be regularly reviewed and updated. Proposals are set out for a review and monitoring process including a series of performance indicators to facilitate this monitoring. This includes monitoring of the number of new trees successfully established each year, number of vacant tree pits planted with replacement trees and the number of trained Tree Wardens actively taking part in community events.
Equally important to the success of the tree strategy is the involvement and support of the community. The strategy therefore concludes with a short section on how the community has been involved in the development of the tree strategy to date together with opportunities for involvement in the delivery of the tree strategy.

The strategy has been prepared by The Landscape Partnership on behalf of the London Borough of Waltham Forest.
The best time to plant a tree was 20 years ago. The next best time is now.

Chinese proverb
Introduction

Trees are an essential element of the urban environment and a central feature in the character and quality of the Borough of Waltham Forest. They bring a wide range of benefits to the borough but are under threat as never before, due to pressures from climate change, development (in all its forms) and concerns about building subsidence (both real and perceived).

In 2005 the London Tree and Woodland Framework was launched by the Mayor of London, providing a framework for the planning and management of the capital’s trees and woodlands. Within this, the preparation of a Tree Strategy by each borough is identified as a high priority to promote the management and care of all trees within each of the boroughs.

This tree strategy provides a framework for the planning, management and promotion of trees and woodlands in Waltham Forest. It covers all trees in the area (both publicly and privately owned), considering them conceptually as an urban forest, as a single unified resource. The strategy has the central aim of ensuring that trees in the borough make the best possible contribution to the quality of the borough.

The Council is committed to the planning, management, increase in numbers and promotion of trees and woodlands in Waltham Forest and recognises the long term social, economic and environmental benefits trees will bring to the borough. Our vision for the future of trees and woodlands in Waltham Forest is that:

Trees become a key defining feature of the Borough for both current and future generations and the urban forest of Waltham Forest is protected and enhanced.

This strategy provides a framework for meeting this commitment and has the following objectives:

- to celebrate the borough’s existing tree population
- to co-ordinate resources and actions
- to provide guidance to stakeholders (both internal and external) on tree matters
- to plan for future improvements
- to assist in the preparation of funding bids for new tree initiatives in the borough

The strategy has been prepared by The Landscape Partnership on behalf of the London Borough of Waltham Forest.
For in the true nature of things, if we rightly consider, every green tree is far more glorious than if it were made of gold and silver.

- Martin Luther
1.1 The case for trees in the urban environment

1.1.1 The trees in the London Borough of Waltham Forest provide a range of significant benefits to society, the economy and the environment. Importantly, trees have an essential role in climate change mitigation and adaptation. The following list of the benefits of trees is by no means exhaustive and there is ongoing research into the benefits of trees.

1.1.2 Trees have the following social benefits:

- Amenity value, providing contact with the natural environment for those without daily contact with green space
- Instilling a sense of place, by creating an attractive and distinctive environment
- Provide a sense of scale
- Enhancing quality of life through stress relief, improving mental health and emotional well-being
- When allowed to grow to maturity, providing a sense of history, establishment and continuity
- Releasing scents which elicit a positive emotional response
- Supplying cleaner air which decreases the incidence of asthma
- Reducing the occurrence of skin cancer by providing shade
- Providing a variety of sensory elements eg to those with visual impairment, through hearing a breeze or smelling a scent
- Speeding up patients’ recovery times when trees are visible from hospital beds
- Educational value, as green and outdoor classrooms enhance learning

1.1.3 Some examples of the ways in which trees benefit the economy are provided below:

- By-products, which include timber, wood chip, charcoal, compost and mulch, can be created and sold to generate income
- Direct employment of specialists, such as arborists and arboriculturists
- Cheaper maintenance costs than grassland and other green spaces
- Increasing residential property values and encouraging inward investment to employment and retail areas by creating an attractive environment
- Increasing the value of undeveloped land

1.1.4 The environmental benefits of trees are as follows:

- Maintaining and enhancing biodiversity by providing or contributing to the habitats of a number of important species
- Making a significant landscape and visual contribution, by screening, as a landmark and through aesthetic value
- Providing historic continuity by living for several centuries, offering a link to past events and planned townscape, particularly pertinent in Waltham Forest, as the borough was named after the forest in which the area used to reside, now known as Epping Forest. The trees within the borough form an important connection to the borough’s history
• As an important townscape feature, providing identity, orientation and structure to our urban areas and by introducing organic shapes and colours and seasonal change

1.1.5
Trees make a significant contribution to climate change mitigation and adaptation by:

• Sequestering carbon dioxide and producing oxygen as a by-product of photosynthesis
• Filtering and absorbing gaseous pollutants including ozone, sulphur dioxide, carbon monoxide and nitrogen dioxide
• Trapping dust and particulate matters which are then washed away by rainfall, reducing the dispersal of pollutants
• Providing a source of renewable energy in wood fuel
• Reducing localised extremes in temperatures by reflecting sunlight, providing shade and preventing the hard ground surfaces from absorbing heat and radiating it back to create the urban heat island effect
• Mitigating flood risk by collecting and naturally evaporating water, as a feature of Sustainable Urban Drainage Systems to attenuate water

The financial value of trees

1.1.6
The above lists are not exhaustive, but they clearly identify that the benefits of trees are enormous and wide-ranging. In recent years there has been increased interest in quantifying these benefits and translating them into financial terms. A system known as CAVAT (Capital Asset Value for Amenity Trees) has been developed by The London Tree Officers Association to allow authorities to prepare a valuation of their tree stock which can then be used to justify managing the trees as if it were a financial asset of the community. This is a major step forward as, traditionally, the management of trees and woodlands by local authorities has been seen solely as a cost, with no acknowledgement of the financial benefits that trees bring.

The value of London’s trees

• average value of a London street tree = £8,000-10,000
• total value of London’s street tree population = £4.2 billion
• total value of Waltham Forest’s street trees = £160 million

1.1.7
Several London boroughs have carried out a detailed valuation of their street trees using the CAVAT system (eg Islington and Camden). However, a detailed assessment of the value of trees in Waltham Forest has not been carried out although it is recommended as a target for the future.

1.1.8
The box above identifies headline figures on the valuation of street trees in London and an approximate valuation for the Borough of Waltham Forest. The latter is based on an estimated total number of 20,000 street trees in the borough with an average value of £8,000 each.
The recent report by Dr Mark Johnston and Chris Britt, Trees in Towns II (published by CLG) recommends that local authorities should set budgets for tree management that are proportionate with the value of the tree resource. In asset management terms it is generally considered good practice that to maintain the resource efficiently, a management budget should be allocated that is a percentage of the asset's total overall value. An appropriate percentage will depend on the value of the asset but generally lies somewhere between 1.5% and 4% of the resource's Total Asset Value (TAV). Waltham Forest currently allocates an annual budget of £310,000 for management of its street trees which is clearly substantially below this percentage.
1.2 Policy context

1.2.1 Waltham Forest Tree Strategy has been informed by a comprehensive review of the relevant policy at the national, regional and local levels. The review enables consistency between the strategy and the overarching policy framework. The key policy documents at the national level include ‘A Strategy for England’s Trees, Woods and Forests’ (DEFRA, 2007) and ‘Trees in Towns II’ (Department of Communities and Local Government, 2008). DEFRA’s strategy aims to ensure that there is a resource of trees, woods and forests where they can contribute most in terms of environmental, economic and social benefits. ‘Trees in Towns II’ promotes investment in the urban forest.

1.2.2 Sustainable development is the main national policy driver, filtering through from international policy and legislation. ‘Planning Policy Statement 1: Delivering Sustainable Development’ (CLG 2005) is the overarching national planning policy and the central theme of this is the delivery of sustainable development. Sustainable development may be defined as ‘development that meets the needs of the present, without compromising the ability of future generations to meet their own needs’ (WCED, 1987). Sustainability is a balance between social, environmental and economic development. Trees’ benefits encompass these three pillars of sustainable development. A linked policy driver is to reduce vulnerability to climate change and to mitigate the impacts of climate change. Trees have a significant role in carbon sequestration and the moderation of microclimates. Principal policy issues set at the international scale and reflected in national policy include the protection and enhancement of biodiversity and ecology, landscape and cultural heritage. Section 1.1, above, explains the relationship between trees and these objectives. A further policy driver is the health benefit of trees and the wider green infrastructure network.


1.2.4 At a local level, there is a large number of policy documents which have informed the development of the tree strategy. Of these, the three key documents are the ‘Waltham Forest Sustainable Community Strategy’, the Unitary Development Plan (and emerging Local Development Framework) and the Waltham Forest Biodiversity Action Plan.

1.2.5 An overall vision and objectives for the Borough are set out in ‘Waltham Forest Sustainable Community Strategy - Our Place in London’ (London Borough of Waltham Forest, 2008) sets out the vision and objectives for the borough. The Waltham Forest Tree Strategy contributes to objectives for climate change mitigation and adaptation, health and regeneration, the design and quality of public space and the quality of the public realm.

1.2.6 The current adopted planning policy for trees in the Borough is saved policy ENV22 from the Waltham Forest Unitary Development Plan (First Review 2006). The policy states that in order to protect and improve the amenity and biodiversity value of trees, the London Borough of Waltham Forest will:

a) where appropriate, make tree preservation orders on trees or groups of trees;

b) aim to ensure that other trees of lesser public amenity value and those of value to nature conservation are retained wherever possible;

c) ensure that, whenever appropriate, in granting planning permission for any development, adequate provision is made for the protection of existing trees and the planting of new trees which should be of locally indigenous species wherever possible;

d) encourage other public authorities and private landowners to implement new tree planting which should be of locally native species wherever possible;

e) encourage proper beneficial management of woodland areas;

f) seek the use of planning obligations with developers to plant appropriate species of trees wherever services allow, in public streets and where appropriate, in open spaces.
Further detail on the Core Strategy and Development Management DPD policy recommendations in relation to trees is provided in Appendix F.

1.2.7
The ‘Biodiversity Action Plan’ for the London Borough of Waltham Forest includes a series of Habitat Action Plans. The most relevant to ‘Waltham Forest tree strategy’ is Woodland and Urban Forest Habitat. The following objectives are included for this habitat:

- To protect existing woodland habitat and tree coverage.
- To secure appropriate management for all woodlands in the Borough.
- To expand the total woodland area through new planting and extending existing woods.
- To work with local people to encourage active community participation in improving, enjoying and learning about woodland and trees.

1.2.8
The implementation of ‘Waltham Forest tree strategy’ will deliver these objectives by setting out priority tree species and areas of woodland for protection and identifying opportunities for woodland creation.

1.2.9
The main issues arising from the review of the policy context that need to be considered in the tree strategy are:

- The role of trees in climate change mitigation and adaptation
- Realisation of the social, economic and environmental benefits of trees
- Secure adequate investment in tree management programmes to reduce avoidable future costs;
- Identify and protect ancient woodland and veteran trees
- Meet Council targets to significantly increase tree and woodland cover
- Ensure that appropriate tree planting is included in development proposals where possible and avoid loss of trees through development
- Follow the principle of right place, right tree
- Consider trees in the borough as a single unified resource
- Ensure that the Tree Strategy informs the Local Development Framework and is a material consideration in decision making
- Realise the regeneration potential of trees in the public realm, particularly regeneration opportunities resulting from the London Olympics

1.2.10
These issues are addressed within the London Borough of Waltham Forest’s Tree Strategy.
1.3  Context for trees in the borough

London context

1.3.1

Trees in London - headline facts and figures

- there are around seven million trees in Greater London
- 25 percent of these trees are in woodlands
- woodlands occupy eight percent of London’s land area
- an estimated 20 percent of London’s land area is under the canopy of individual trees.


1.3.2

Figure 1 below is an extract from the London Tree and Woodland Framework which illustrates the main concentrations of trees and woodlands in Greater London. This identifies the main concentration of woodland as being in the south east of London with other smaller woodland areas scattered across the capital including Epping Forest which extends along the eastern boundary of the borough of Waltham Forest. Tree densities in the capital are generally lowest in the boroughs adjacent to the north side of the Thames at under 30 trees/ha (eg Tower Hamlets, Newham and Barking and Dagenham), increasing to 30-40 trees/ha in most other boroughs (including Waltham Forest) with a few boroughs to the north and south of central London (including Barnet, Harrow, Brent, Croydon, Sutton and Merton) with average densities of over 40 tree/ha.

Figure 1: Tree densities and woodlands in London
Borough context

Location

1.3.3
The London Borough of Waltham Forest is located to the north east of the City of London stretching from Leyton and Leytonstone in the south to Chingford Green in the north. The borough is a mid-sized London borough (c. 39 km$^2$) with an average population density of nearly 6000/km$^2$.

1.3.4
The north circular (A406) divides the borough and broadly marks the boundary between more recent twentieth century areas with a suburban character to the north and denser nineteenth century urban development to the south. The borough is unusual in being bounded to the north, west and south by large swathes of open space comprising Lee Valley Regional Park (incorporating Walthamstow reservoirs) and Epping Forest. There are also remnants of Epping Forest along the eastern side of the borough.

1.3.5
The main centres in the borough are Leytonstone, Walthamstow and Chingford.

Figure 2: Location and context of Waltham Forest
Movement

1.3.6
The A406 (North Circular Road), A12 and the A112 form the three main highway connections passing through the borough. The A406 crosses east-west and links with the M11 and M25. Further south, the A12 also crosses east-west and links (via the A406) with the M11 and M25. The latter route has been identified as a key vehicular link for the 2012 Games, providing a direct link between Stansted Airport and the Stratford Olympic Stadium and Village.

1.3.7
The main north-south route through the borough is the A112 which connects the main town centres along Chingford Road, Hoe Street, and Leyton High Road right and leading into Stratford. In addition, Lea Bridge Road provides an important east west corridor that passes through Bakers Arms and Whipps Cross.

Public realm

1.3.8
The streets within the borough make an important contribution to the overall impression of the public realm, and influence how people experience local character. The extensive presence of trees within parks and along connecting streets support the scale and enclosure of spaces and streets and contribute to the impression of Waltham Forest being a green borough. The Olympic Approach Business Case prepared by Urban Initiatives (2008) identified a street typology for the borough and it is proposed that the emerging streetscape guidance will provide a strategic concept and plan for the treatment, maintenance and quality of each type of street. The borough is taking a holistic approach to its management of the public realm where 'the ‘green and grey' are approached as one scheme. The tree strategy forms an important component of this.

Street network

1.3.9
The Olympic Approach Business Case identified seven different types of street which make up the network of the main streets in the borough:

- Urban Motorway
- Urban Main Street
- Avenue
- Community Spine
- Park Edged Street
- Residential Avenue
- Suburban Main Street

1.3.10
These are illustrated on Figure 3 and brief descriptions of each of these (as set out by Urban Initiatives, 2008) are provided below.

**Urban Main Street (eg Leyton High Road and Hoe Street)**
These streets are generally lined with 2-4 storey Victorian development with stretches of intensive secondary retail interspersed with medium density terraced housing. They provide important settings for local community services, and as such are key focal points for pedestrian movement. At the same time they cater for the sub regional demands for traffic, passenger transport and cyclist movement.

**Avenue (eg Forest Road)**
These streets are similar in nature to Urban Main Streets, although with a more suburban London feel. The form of the street is predominantly Victorian terraced housing with smaller scale patches of local retail activity. Movement functions are typically, but not always, less pronounced than main streets.

**Community Spine (eg Blackhorse Road and Kings Road)**
These streets form important spines through lower density residential areas, and are often narrow and well loved streets. In movement terms they provide access to a variety of school or cultural/community uses, with ensuing pressures in peak periods.
Figure 3: Waltham Forest Street typologies
Park Edged Street (eg Woodford New Road and Whipps Cross Road)
These streets are like green fingers extending on the eastern and western edges and the busy urban streets run through them. They currently serve as fast moving vehicular conduits with little interaction between the movement stream and open spaces. Northern Waltham Forest contains numerous examples of how service lanes can be used to create high amenity local settings directly adjacent to busy Park Edged Streets, with a close physical association with adjoining parks.

Residential Avenue (Waltham Way)
Waltham Way is the only street in the borough with this typological allocation. It is a unique street in that it is largely a dual carriageway road, capable of carrying high volumes of traffic, edged by low density residential homes. Existing tree planting frames the street, lending itself to slower speeds.

Suburban Main Street (eg Chingford Mount)
Suburban Main Streets are concentrated in northern Waltham Forest in suburban centres such as Chingford, Chingford Mount and Highams Park. These small local centres form important focal points for surrounding communities and are bustling and vibrant places. Chingford in particular exhibits signs of a successful night time economy - rare in the borough - as evidenced by the number and quality of restaurants located along it.

Geology and landform
1.3.11
The borough has few pronounced changes in topography but has a general gentle slope southwards and westwards towards the Lea Valley and River Thames. The landform slopes gradually from a high point of 91m AOD at Pole Hill to 0m Above Ordnance Datum by the River Lea in the south west. The main high points within the borough are Pole Hill, Chingford and Walthamstow.

1.3.12
Geology is an important factor when considering appropriate species for new tree planting, as it affects local ground conditions. In particular, it affects the likelihood of ground shrinkage caused by high water-demanding species and associated problems of building subsidence.

1.3.13
The geology of Waltham Forest broadly falls into two types. Most of the northern, central and eastern parts of the borough consist of London Clay - a heavy and stiff, bluish coloured clay that drains poorly and is prone to shrinkage. The remainder of the borough on the western side is made up of alluvium (deposited by the River Lea) changing to a variety of gravel types (predominantly Taplow Gravel) on the adjacent slightly higher land.
Figure 4: The geology of Waltham Forest
Source: Waltham Forest Urban Characterisation study, Urban Practitioners, 2009
1.4 Summary of the borough’s tree stock in 2010

1.4.1
Trees are an immensely important feature in the Borough of Waltham Forest and make a major contribution to its character and quality. The tree stock includes woodlands, street trees, trees on public land including parks, schools, cemeteries etc and trees on private land including gardens and retail and business developments. Together, they form part of the urban forest which stretches across London.

Woodlands
1.4.2
There are a number of woodlands which are illustrated on Figure 5. Together these make up 3% of London’s total area of woodland. Predominately concentrated in the north and east, the borough’s woodland incorporates a small portion of the remnants of Epping Forest. Of the wooded areas, the majority have been identified as ancient woodlands with the dominant species identified as Common Oak (Quercus robur) although there is a significant number of mature Beech (Fagus sylvatica) within the wooded area of Highams Park. Areas of naturally regenerating Service Tree (Sorbus torminalis) have been noted in these areas which is nationally rare.

1.4.3
The following woodlands are owned and managed by the Corporation of London: Hawkswood, Reservoir Wood, parts of Walthamstow Forest and The Sale, Hatch Grove, Bury Wood, Bluehouse Grove, and Hatch Forest. Woodland owned by the borough includes Larks Wood, Ainslie Wood, and parts of Whitehouse Wood. Borough owned woodland is managed by volunteer groups overseen by the Council officers.

1.4.4
Approximately 30% of the borough’s woodland is considered secondary woodland and includes part of the White House Estate and large areas of Epping Forest that have become wooded since the decline of grazing. Other areas of secondary woodland include railway embankments and disused land behind houses and along watercourses.

1.4.5
The borough also has approximately four hectares of wet woodland, found predominately in the Lea Valley in Low Hall Wood, Low Hall Flood Meadow, Leyton Flats and Walthamstow Marsh.

1.4.6
The borough’s woodlands have significant amenity value, providing residents with areas to walk, relax, play and watch wildlife. They are also important for wildlife providing a habitat for a wide range species.
Figure 5: Woodlands, open space and key tree lines in the borough
Street trees

1.4.7
There are approximately 20,000 street trees distributed relatively evenly across the borough and owned and managed by the Council.

1.4.8
Street trees make a major contribution to the character and quality of the borough's landscape, creating a green and leafy environment for many areas and providing visual amenity, wildlife habitat and shade for residents. The street trees vary considerably in age, size and species, influenced mainly by the differing age and character of different parts of the borough, the space available for planting and the approach to tree planting at the date of planting. The borough's character areas are set out in the Waltham Forest Urban Characterisation study (2009) which defines the following character types: Victorian, Edwardian, Warner, Garden City style, Inter-war, Post-war and Modern. The older character types are found towards the south of the borough and more modern development towards the north.

1.4.9
The Victorian and Edwardian streets of Leyton and Walthamstow are narrow and street trees were not a planned element of the streetscape when the streets plans were originally laid out. Instead, trees have been added in more recent years and have had to accommodate the often difficult growing conditions common in dense urban areas. As a result, smaller varieties eg (Hawthorn (Crataegus sp.), Flowering Pear (Pyrus calleryana ‘Chanticleer’) and ornamental varieties of Crab Apple (Malus sp.) have been planted in many places. These are still valuable features but have less impact than the large-maturing trees which are found in the north of the borough. In some places in the south large varieties of tree (eg Plane (Platanus x hispanica) and Lime (Tilia sp.) have been planted despite the lack of space and are managed on a regular basis by pruning and pollarding. Many of these larger trees have been managed as high pollards, which is expensive, time-consuming and often a disruptive type of management regime. Other tree species in the south include Pillar Apple (Malus tschonoskii) and a variety of Cherries (Prunus sp.). Problems include dropping of large pulpy fruit in the autumn, shallow roots causing damage to pavements and creating a trip hazard and regular maintenance of the larger trees draining the budget.

1.4.10
Towards the north of the borough, beyond the A406 (north circular), the typology changes to inter-war and modern housing which offers wider verges for tree planting. These provide good growing conditions for street trees and have been planted with Cherry (Prunus sp.) and Sorbus species. However, in many places the verges have few trees and could accommodate more. The problems associated with street trees towards the north of the borough are not as common as those in the south due to the general increase in space for trees to grow, although the same problems arise where the streets are narrow, such as towards the centre of Chingford.

1.4.11
Raywood ash (Fraxinus angustifolia) trees are found across the borough and present their own management problems. As they mature the main unions attaching the large limbs to the stem begin to fail which present a risk in terms of health and safety. The immediate response to this is to reduce the tree canopy, but the species does not lend itself to this form of management, due to the nature of the branch formation, so the trees are effectively ‘topped’ with unsightly results.
Norway maple (Acer platanoides) is also found across the borough and in places have outgrown the space available for them. As a result, they have been ‘topped’ (heavy reduction of the tree's canopy). This results in rapid re-growth, the development of poor branch unions, poor canopy form and a relative reduction in the visual amenity of the tree.

The majority of the borough's street trees are relatively small either because they have been planted relatively recently or because species of small varieties of trees have been planted. However, there are a number of streets with lines of large mature trees which form impressive townscape features. These include:

- Kings Road
- Lea Valley Road
- Ainslie Wood Gardens
- Cherrydown Avenue
- Hurst Avenue
- Marmion Close
- Woodford Road

**Private trees**

Trees on private land includes trees in private gardens, retail sites (such as supermarket car parks), industrial sites and other private land holdings (eg private sports clubs). They are an important element of the borough's tree stock, particularly in the north, where a large proportion of the borough comprises private gardens many of which are substantial and with have significant tree cover. In addition, a higher proportion of housing is privately owned in the north of the borough and generally more time and money has been invested in private gardens and the planting and management of trees.

The number of privately owned trees in the south is relatively low, due to the lack of space within privately owned gardens. The high proportion of rented properties and short term occupancies in the borough has also led to a general lack of investment in gardens and little planting, management and maintenance of tree stock on privately owned land. However, other private land holdings in the south of the borough such as retail parks and supermarkets have had some tree planting in recent years and will gradually help to increase tree cover as they mature.

Trees on private land provide many benefits for their owners including providing shade, visual amenity and wildlife interest and adding character to a property. In addition, although the trees are on private land, the benefits are experienced over a wide area, including from the adjacent roads, public spaces and surrounding properties.

Within the northern half of the borough, the number of trees within gardens increases dramatically in proportion with the increase in garden size. The species found varies from small garden scale trees such as Cherries (Prunus sp.) to large forest scale trees such as Common oak (Quercus robur).
Public open spaces

1.4.18
The London Borough of Waltham Forest has many public open spaces, including children’s play areas, cemeteries, a cycle race track, tree trails, ecology areas and a model railway for children. There are also 25 parks, including six premier parks. Trees within the public open spaces comprise a wide range of species (both ornamental and native) ranging from young, newly planted trees to mature and veteran trees.

1.4.19
Public open spaces are particularly important for providing sites for a substantial number of large ‘forest scale trees’ which are expensive to manage elsewhere in urban areas, due to insufficient space for their development and therefore creating the need for regular pruning. In the public open spaces large scale trees can be planted and allowed to develop full canopies without the need for cyclical pruning.
1.5 Key tree issues in the borough

1.5.1 An analysis of the borough’s tree service requests and a stakeholder consultation exercise were undertaken during 2010 to identify the key tree issues in the borough that needed to be addressed in the strategy. LB Waltham Forest provided records for the period 2007 – 2009 covering tree service requests, tree-related complaints, public enquiries relating to trees and Members Enquiries relating to trees. These were analysed to identify the key issues of concern to the public. Stakeholders in the consultation exercise included: LBWF officers (including officers responsible for: highways, trees, climate change, planning policy, greenspaces, public realm and environment), Park Friends Groups, Streetwatchers, Ascham Homes, Lee Valley Park, Design for London and the Forestry Commission. The key issues that were identified arising from this analysis of tree service requests and consultation exercise are summarised below.

Street tree issues

1.5.2

- Pavements and highways are regularly damaged by tree roots lifting surfacing and creating a trip hazard. This results in major annual costs for LBWF highways department to rectify
- Tree root damage by street trees to adjacent properties resulting in costs to LBWF arising from subsidence claims
- Litter collection, dog fouling, and weed and sucker growth in tree pits around base of trees
- Replacement street trees are needed to replace trees removed due to diseased, dying or dead. (There is currently a backlog of unplanted replacement trees)
- Obstruction of CCTV sight lines and satellite dish reception lines by trees
- Obstruction of street lights and traffic controls by street trees
- Dangerous trees and tree limb falls causing personal injury or damage to properties
- Frequent requests from the public for tree pruning due to complaints about loss of light, obstruction of view etc
- Complaints about fruit, sap and bird mess from trees on vehicles, pavements and properties resulting in slip hazard
- Better information required to inform local residents about planned tree works, tree replacements etc
- Trees in pavements can cause obstructions to the visually impaired and pedestrians with buggies

Privately owned trees

1.5.3

- Lack of planting, management and maintenance of tree stock on privately owned land due to high proportion of rented properties and short term occupancies
- There is a need for more information on trees suitable for planting in private gardens

Species-specific issues

1.5.4

- Problems associated with mature ornamental cherry trees (*Prunus sp.*) (trees grafted onto native cherry root stock with large root system causing damage to surrounding pavement surface)
- Presence of large-maturing trees eg London Plane (*Platanus x hispanica*) in locations with insufficient space for trees to grow resulting in frequent requests for pruning and expensive maintenance regime
• Large number of London Planes (*Platanus x hispanica*) and Limes (*Tilia sp.*) maintained as high pollards with resultant high maintenance costs
• Problems associated with Raywood Ash (*Fraxinus angustifolia* ‘Raywood’) (falling limbs and reactive management causing poor re-growth and form with resultant reduction in visual amenity)
• Presence of Norway Maples (*Acer platanoides*) which have been ‘topped’ resulting in poor form and reduced visual amenity
• Problems associated with Pillar apple (*Malus tschonoskii*) planted as street trees and dropping large pulpy fruits on roads, pavements and vehicles

**Public awareness and understanding issues**

1.5.5
• Lack of public understanding about the Council’s tree services
• Lack of understanding of tree pruning by the general public (frequency, types of pruning works etc)
• Large number of tree-related enquiries by the public

**Technical and planning issues**

1.5.6
• New tree planting – need for appropriate species and appropriate tree pit specification
• Need to recognise contribution of trees to local character and implement measures to preserve and enhance arboreal character
• Shortage of trees suitable for children to climb
• Shortage of large ‘forest’ trees
• Incomplete and out-dated record of TPOs
• Low profile of trees and tree issues

**Key planting opportunities**

1.5.7
• Potential to contribute to climate change adaptation with new tree planting
• New tree planting to strengthen urban structure and townscape character
• Planting of forest-scale trees (where space permits)
• Plan for the location of trees where they can be retained in the long term as a mature landscape structure, out-living shorter term urban redevelopment

**Tree services section and tree works procurement**

1.5.8
• Inefficient procurement system for tree works
• Incomplete survey data for Council owned trees
• No risk management system in place for trees in open spaces
PART TWO – Strategies

The true meaning of life is to plant trees, under whose shade you do not expect to sit.

- Nelson Henderson, c1900
2.1 Tree policy – Vision, aims and objectives

The borough’s vision for the future of trees and woodlands in Waltham Forest is that:

*Trees become a key defining feature of the borough for both current and future generations and the urban forest of Waltham Forest is protected and enhanced.*

2.1.1 To achieve this vision, the following key objectives have been identified:

- Improve protection of trees within the borough;
- Ensure current level of tree cover in the borough is increased;
- Raise quality and safety of the borough’s tree stock;
- Raise profile, value and understanding of trees and tree issues in the borough;
- Increase efficiency and cost-effectiveness of tree services section and procurement of tree management and maintenance works;
- Support the creation of east-west green corridors across the borough; and
- Reduce the number of claims for tree-related subsidence.

2.1.2 The Council aims to secure Waltham Forest’s position as the greenest borough in London within ‘Our Place in London: Waltham Forest Sustainable Community Strategy’ (Waltham Forest Local Strategic Partnership, 2008). The borough’s trees make a significant contribution to achieving this aim.

2.1.3 This vision underpins the development of strategies for the management and promotion of trees within the borough (both Council and privately owned) which are set out within sections 2.2 – 2.6 below.
2.2 Trees under Council ownership

Policy ST1:

The Council will continue its programme of street tree inspections and management works to ensure the health and safety of trees is maintained and the potential for tree-related damage and nuisance is kept to a reasonable minimum.

2.2.1 Although the borough’s street trees are highly valued, they can also cause damage and nuisance to surfaces and structures close to the tree. This can range from seasonal nuisance such as loss of light and slip hazards and pavement mess from dropped fruit to longer term more serious problems such as subsidence problems and trip hazards from roots or broken pavement surfaces.

2.2.2 It is important that the borough’s street trees are effectively managed to ensure that they continue to deliver positive benefits to the character and quality of life in the borough both now and in the future. At the same time, the potential for damage and nuisance caused by street trees needs to be recognised and appropriate planning and management measures need to be put in place to ensure these issues are minimised.

Policy ST2:

The Council will continue a programme of street tree planting using appropriate species and specification, ensuring that the current stock of street trees is maintained and improved.

2.2.3 Although there is a good density of street tree planting distributed across the borough, there are still many streets which would benefit from additional planting. New trees are required in locations where trees have been removed in the past but have not been replaced and where there are gaps in the existing cover of street trees. Species need to be carefully selected so that they are appropriate for the size and character of space available, maximise benefits for wildlife and mitigate the effects of climate change.

Highways, services and utilities maintenance works

2.2.4 Maintenance of the highway, service routes and street furniture is an ongoing process in the borough undertaken by a number of different parties including: utilities companies, the Council’s highways department and Transport for London. These works are an essential part of ensuring the borough’s transport and infrastructure network continues to operate. They do however bring considerable potential disturbance to the borough’s trees as work often requires excavation and construction within the root zone of trees.

2.2.5 There is a general need for better co-ordination of services and utilities in relation to trees as this is often poorly planned and can result in tree roots causing damage to services with potentially expensive remediation works and/or requests for the removal of trees. There are particular
opportunities to improve this on new development sites where services can and should be properly co-ordinated from the outset and appropriate space allowed between services and new and existing trees.

Policy ST3:

All utility companies, the London Borough of Waltham Forest highways department, Transport for London and their contractors will be required to work to the revised version of National Joint Utilities Group: Guidelines for the Planning, Installation and Maintenance of Utility Apparatus in Proximity to Trees (NJUG 4)

2.2.6
Most street trees can accommodate some disturbance from maintenance work if it is carried out carefully in accordance with the revised version of National Joint Utilities Group: Guidelines for the Planning, Installation and Maintenance of Utility Apparatus in Proximity to Trees (NJUG 4). If these guidelines are not followed there is a danger that trees will be damaged and the health and safety of trees compromised. It is important that utilities companies, the Council's highways department and Transport for London (together with each of their contractors) are fully aware of the best practice and recommended methods for avoiding damage to trees when undertaking highways works.

Policy ST4:

Where trees are damaged through failing to comply with the NJUG guidelines, the Council will seek compensation from the organisation responsible.

2.2.7
In order to maintain the quality of the borough’s street trees, it is important that damaged trees are either removed and replaced or appropriate remedial works undertaken. Costs will be recovered from the organisation responsible for damaging the tree to cover the cost of remedial works or removal and replacement.

Policy ST5:

The Council will not approve the removal of trees in Conservation Areas or trees covered by a TPO to accommodate new vehicle crossovers unless an exceptional justification can be provided. If a request is made by a member of the public for a new crossover, and it is necessary to remove a trees or trees, the applicant will be required to pay compensation for the loss of the tree together with the cost of tree removal and planting of a suitable replacement.

2.2.8
Public requests for the creation of vehicle crossovers to facilitate off-street parking have increased in recent years. This brings with it a reduction in the visual amenity of a street as front gardens are lost and cars become more dominant in the streetscape together with an increase in hard surfacing and an associated reduction in biodiversity and increase in the risk of flash-floods. It also frequently brings with it a request for removal of street trees to create space for the crossover at a time when street trees are already under pressure and yet an increasing need for street trees to mitigate the effects of climate change.

2.2.9
Compensation for the loss of the tree will be calculated using the Capital Asset Valuation for Amenity Trees (CAVAT) system developed by the London Tree Officers Association (2009).
Trees on housing land

Policy H1:

The Council will continue the inspection and management of trees on housing land through an on-going service level agreement with Ascham Homes (or any other future organisation with responsibility for managing the Council’s housing).

2.2.10

The Council owns a large portfolio of housing (c. 12,400 homes currently managed by Ascham Homes on behalf of the Council) which is situated throughout the borough and comprises a range of housing types and a large number of trees. The tree section has a service level agreement with Ascham Homes to inspect and maintain these trees. Trees on the Council’s housing land are considered to be an important element in the borough’s ‘urban forest’ and the Council will seek to maintain its direct role in the management of these trees.

2.2.11

The areas of Council housing are predominantly in dense urban areas. The estate contains a large number of trees of varying age and species. These trees bring significant benefits to the estate including providing relief from the surrounding built up area, providing shade and visual amenity and creating a sense of local identity. The Council is committed to maintaining, and where possible increasing, the quantity and quality of trees within the borough’s housing estate.

Policy H2:

The Council will seek opportunities with Ascham Homes (or any other future organisation with responsibility for managing the Council’s housing) to increase the tree cover on housing land by securing funding to allow a programme of new planting and including tree planting as part of estates regeneration schemes as they come forward.

2.2.12

Housing land provides a significant opportunity for new planting in the borough with sufficient space for a substantial number of new trees. Growing conditions are generally better than in streets, with more space available and less areas of paved or compacted ground, resulting in easier access to groundwater and a subsequent greater tolerance to periods of drought. As a result, there are planting opportunities for a wider range of tree sizes and species than is possible in other parts of the borough (particularly along highways). The Council will explore opportunities with Ascham Homes for securing funding to allow a programme of new planting on the housing land.

Trees in parks and open spaces

Policy POS1

The Council will manage and improve the quality of the tree stock in its parks and open spaces.

2.2.13

Trees play an important part in the character and quality of the borough’s parks and open spaces and contain a wide variety of species and sizes. The Council is committed to the high quality management of this important asset.
Policy POS2

Parks and open spaces are identified as priority areas for planting and maintaining large-maturing trees.

2.2.14
The parks and open spaces contain a high proportion of the borough’s forest scale trees which are difficult to establish elsewhere in the borough due to the lack of sufficient space being available. These forest-scale trees are immensely valuable in mitigating the effects of climate change and also in the wildlife, aesthetic and cultural value that they bring.

Policy POS3

The Council will carry out regular inspections of trees in parks and open spaces.

2.2.15
As trees mature, they bring an increase in risk and a rise in management costs. At present these are managed on an as needs basis with no regular programme of inspections. The Council recognises it has a duty of care to ensure that trees in parks and open spaces are maintained in a safe condition and it will urgently seek to secure funding to allow a programme of regular inspections.

2.2.16
As a minimum, the Council will carry out an initial assessment of all trees in public parks and open spaces in 2010/11 to assess any potential risks and identify any works required to maintain the trees in a safe condition. It will also identify all higher risk trees which will require regular inspections (primarily mature and over mature trees) and these will be inspected every 3-5 years.

Policy POS4

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

2.2.17
Parks and open spaces provide the opportunity for new planting with a variety of size and species of trees. Unlike many other parts of the borough, the air quality, ground conditions and space available provide conditions which are suitable for the planting of native species. The planting of native species will therefore be promoted due to the wildlife benefits and the cultural and historical associations of native species with the borough. However, ornamental species also bring potential benefits of diversity and visual interest and in some instances may be more appropriate to the park’s character and will therefore be planted in some locations. The implications of climate change will also need to be considered and species selected which can cope with changes in climate.

Policy POS5

Examples of trees with dead wood and holes including over-mature and declining trees will be retained in parks, gardens and woodlands to provide a habitat for wildlife (subject to appropriate health and safety inspections).
2.2.18
Over-mature and declining trees and trees with dead wood and holes provide valuable wildlife habitats particularly for bats, birds and invertebrates. Where possible, examples of these types of trees will be retained in parks and gardens if the tree can be maintained in a safe condition.

Trees in woodlands and nature conservation areas

2.2.19
A substantial proportion of the borough's woodlands are not owned or managed by the Council and are either within Epping Forest (under the responsibility of the City of London Corporation) or the Lea Valley (under the responsibility of the Lee Valley Regional Park Authority). The Council is keen to ensure that woodland management across the borough is consistent and that knowledge and examples of best practice are shared between the different organisations responsible for woodland. The Council will encourage close liaison between the different groups including the City of London Corporation and the Lee Valley Regional Park Authority tree sections to encourage knowledge sharing and ensure woodland management is carried out across the borough in a consistent and co-ordinated manner.

Policy W1

The Council will protect and enhance the borough’s woodland. Total woodland cover within the borough will be maintained at the existing level or increased.

2.2.20
The borough's woodlands have significant wildlife, amenity and historical value. They represent one of the borough’s most valuable wildlife habitats supporting a substantial number and diversity of species. They provide residents with areas to walk, relax, play and watch wildlife and have also played a major role in the history of the borough hence its naming as Waltham Forest in 1965. The protection and enhancement of woodland is therefore a key priority for the Council.

Policy W2

All planting in woodlands shall be of native species and, where possible, be of local provenance.

2.2.21
New planting in woodlands will use locally appropriate native species which are appropriate to the character of the existing woodlands and which will strengthen the existing wildlife habitats. New planting should use stock of local provenance as this is plant stock which has adapted over time to the growing conditions of the local area.

2.2.22
Every year, trees in the borough’s woodlands produce seed which can be collected and used to propagate trees of local provenance. This is a free source of seed and the propagation of native trees of local provenance for planting by schools, residents etc will be encouraged.

Woodland Management Plans

Policy W3

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

2.2.23
Effective management is important if the character and quality of the woodlands is to be both preserved and enhanced. To ensure that each woodland is managed effectively and appropriately all woodlands in the borough will need Woodland Management Plans. These will identify management objectives for each woodland and an appropriate management regime. Applications will be made to the Woodland Grants Scheme (administered by the Forestry Commission) for funding to assist with the management works set out in the management plans.
2.2.24
Woodlands are particularly important for containing a substantial number of old trees containing features such as dead wood, holes, crevices, fungal decay etc which supports large number of insects many of which are rare. Where these can be maintained in a safe condition, they will be retained (see policy POS5 above).

Trees on educational land

Policy E1

The number of trees and diversity of species and age structure will be maintained or increased on education land. New planting will be promoted, particularly of native species.

2.2.25
On educational land, trees are very important in providing shade and visual interest to sites that often otherwise comprise relatively bland expanses of tarmac, grass sports fields and all weather surfaces. Careful well maintained tree planting can provide a positive element to the character of a school site and can encourage children to develop a positive association and affection for trees, and enable a deeper understanding of the part larger, older trees play within a sustainable environment. Some trees may have been present across several generations and parents will remember playing under and in the same trees that their own children play in now. It is important that future generations of children can continue to enjoy these trees and that new trees are planted to provide continuity of tree cover over succeeding generations. This continuity can be helped by encouraging schools to collect seeds (eg acorns, conkers and ash keys) from trees within the school grounds and the immediate neighbourhood so new trees for the site are propagated from the school’s own and the local tree stock.

2.2.26
Trees also provide an educational resource for schools with the opportunity to teach children about different tree species and the wildlife associated with them. This is encouraged through both the Learning Through Landscape Trust and the Forest Schools Initiative. Native species are particularly important due to the large numbers of wildlife species they can support and because they are relatively easy to identify. Further planting of native species on educational land will therefore be encouraged.

2.2.27
New funding will be sought to allow a programme of new planting on existing schools and tree planting will be included as part of school refurbishment schemes as they come forward.

Policy E2

The Council will continue the management of trees on education land through an ongoing service level agreement with VT Education (or any other future organisation with responsibility for managing the Council’s education estate).

2.2.28
Trees on educational land are Council property but the responsibility for planting and managing trees lies with the individual school. However, the Council has a service level agreement with VT education to provide tree management services and will carry out treeworks as and when requested.
Policy E3

The Council will provide advice to educational establishments on the management of trees, planting of new trees and the use of trees as an educational resource.

2.2.29
The Council will seek to improve this service by providing a guidance note for schools on key tree issues for educational land with particular advice on planting of new trees. The Council will also provide advice to schools on an ad hoc basis for appropriate tree management works and recommendations for new planting.

Policy E4

Large maturing trees will be planted and maintained as a priority on education land wherever space permits.

2.2.30
Many of the educational sites, particularly in the north of the borough are large and provide suitable locations for the large maturing trees which bring particular benefits including mitigating climate change.

Policy E5

Schools will be required to comply with this strategy in the management of their tree stock and will be required to obtain consent from the Council Tree Services section before pruning, removing or planting any tree.

2.2.31
Trees on school sites are Council property and it is important that they are managed as an integral part of the Council’s tree stock. Decisions on future tree removal, planting and pruning need to be based on sound arboricultural advice and with consideration of the Council’s tree stock as a whole. This is best provided by the Council’s in-house tree section which employs professional arboriculturists with a good understanding of the borough’s tree stock. Where schools decide to opt out of local authority ownership or management the council will consider placing TPO’s on valuable trees.
2.3 Privately owned trees

Management of trees on private land

Policy PT1

The Council will encourage best practice in the management of trees on private land.

2.3.1 It is important that privately owned trees are well-managed so that their health and vigour are maintained and the benefits of the trees are maximised. In addition, trees need to be managed so that they do not present a risk to humans or public or private property. Trees on private land are the responsibility of the landowner and owners are responsible for ensuring that trees are maintained in a safe condition. Tree-owners can be required by law to cover the costs arising from personal injury or damage to property caused by a tree.

2.3.2 The Council recommends that tree-owners arrange for the regular inspection of their trees (every 2-5 years) by a qualified arboriculturist. The inspection should identify any works required to the tree to maintain in a safe and healthy condition and the recommended works should be undertaken by a suitably qualified tree contractor. The Arboricultural Association provides a list of approved contractors and consultants (www.trees.org.uk) who would be able to carry out this work.

Policy PT2

New tree planting on private land

The Council will encourage planting of new trees on private land particularly of native species.

2.3.3 Private gardens provide a significant opportunity to increase tree cover in the borough with new planting. This will both assist in mitigating the effects of climate change and also increasing the amenity and wildlife interest of the borough. A wide variety of species are suitable and can be planted in both front and rear gardens. Native species are particularly beneficial for wildlife and these should be planted where possible. However, this can be supplemented with some ornamental species to provide additional interest. The Council will encourage the planting of new trees in private gardens and on private land by providing advice on suitable species and planting methods and providing 1,000 free trees each year for planting on private land. In addition the Council will seek new planting on private land in association with any planning applications for new development.

2.3.4 Wherever possible, all new tree planting should be in unsurfaced areas to ensure water permeates quickly to the tree root and therefore aids its rapid establishment. Where trees are proposed in areas of hard surfacing, tree surrounds should be designed using permeable surfacing.

2.3.5 The Council will provide web-based advice for residents about tree planting on their property to encourage the selection of appropriate species and best-practice advice on the planting and establishment of new trees.
Tree Preservation Orders

Policy PT3

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.

2.3.6
Under the Town and Country Planning Act 1990, as amended, section 197-214 and the Town and Country Planning Act (Trees) as amended 1999 & 2008, the Council has the power to protect trees which are considered to be of particular amenity value by serving a Tree Preservation Order. This protects trees against removal or unnecessary or excessive pruning or damage to any part of the tree (including roots). TPOs can be used for the protection of any tree but are particularly used for trees on private land.

2.3.7
There are approximately 1,471 trees/tree groups covered by TPOs which is a relatively low number for a borough of the size and nature of Waltham Forest. There is a need to increase the number of TPOs in the borough to ensure that the high quality trees within the borough are adequately protected.

Policy PT4

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.

2.3.8
The borough's TPO records are old, incomplete and in need of updating. Some trees covered by TPOs have died and at the same time, other trees have matured and are now in need of protection. The orders are currently recorded using a paper system and there is a need to convert this to an electronic system which can be accessed by the public on-line.

Applications for works to trees protected by a TPO

Policy PT5

The Council will process all applications for works to a tree covered by a TPO within 8 weeks of registration. If sufficient information has not been included the application will not be registered.

2.3.9
Owners or agents wishing to remove or undertake works to a protected tree are required to make a formal application to the borough using application form (Form 31) which can be downloaded online or requested from the tree section. Applications are required for most works including: cutting down, uprooting, pruning and cutting of roots. Once the application has been assessed, a decision notice will be issued detailing the works permitted and any conditions attached to the permitted works.

Trees in Conservation Areas

2.3.10
The borough has 10 Conservation Areas (detailed in Appendix B) which are considered to have special architectural or historic interest and have been designated in order to preserve or enhance their special character or appearance. Trees in Conservation Areas provide an important contribution to the character of the area and are therefore given legal protection similar to that afforded to trees which are the subject of a TPO. Any owner or agent 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 (Form 31) which can be downloaded online or requested from the tree section.

Notifications for works to trees within a Conservation Area

Policy PT6

The Council will respond to all notifications of works to trees within Conservation Areas within 6 weeks of registration.
2.3.11 Under section 211 of the Town and Country Planning Act, local planning authorities have six weeks to respond to notifications of works to trees within Conservation Areas and decide whether a Tree Preservation Order should be made in respect of the tree. The Council has three options, agree with the notified work, negotiate an acceptable level of work or prevent the work by serving a Tree Preservation Order. The process must occur within six weeks of the notification. Once six weeks has elapsed and a TPO has not been served the notified work may be carried out without further reference to the Council.

Trees in new developments

Policy PT7

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.

2.3.12 New development requires formal approval through the borough’s Development Management (DM) process and is subject to the borough’s DM Policies which are set out in the Development Management Development Planning Document. This includes policies relating to the retention and protection of existing trees on site wherever possible and promoting new tree planting on development sites. These are important policies which recognise the important contribution that existing and new trees can make to future developments.

Dangerous trees on private land

Policy PT8

If a tree on private land is considered to be dangerous and causing a risk or hazard to the public, the Council reserve the right to serve notice on the owner to remove the tree or make it safe. If remedial work is not satisfactorily undertaken, the Council will make arrangements for the necessary work to be carried out and claim compensation from the owner for the costs incurred.

2.3.13 Management of trees on private land is the responsibility of the land owner. However, in some circumstances if a tree is causing a particular risk, the Council may intervene and request that works are undertaken to ensure that it is made safe.

Removal of trees on private land

Policy PT9

The Council will resist removal of trees on private land (unless being undertaken as a management operation for the benefit of overall tree cover).

2.3.14 Trees are immensely important in the borough and the Council is very keen to retain existing trees wherever possible. In particular, the Council wishes to see trees being retained for their full natural lifespan (which can be 200 years or more). Our urban areas are developed and re-developed at a frequency much higher than the full life-span of trees, and if our approach to trees is not to retain them within this cycle of development, the future will bring urban areas devoid of mature trees. Removal of trees on private land can be resisted through TPO and Conservation Area legislation and through the Development Management (planning) process. The retention of Council owned trees is equally important and is covered in Policy TM6. However, where trees are to be removed as part of a management operation for the benefit of long term tree cover, such as thinning, this will not be resisted.

2.3.15 The Council will generally refuse applications to fell trees covered by a TPO or within a Conservation Area unless it can be proven that the tree is dead, diseased or dying. A pre-application inspection by a qualified arboriculturist and/or photographic evidence of the tree is required to demonstrate that tree removal is necessary. If a tree is considered to be dangerous, there will be a preference for tree works to be carried out to make the tree safe rather than removal of the tree.
2.3.16
Where sites come forward for development the Council will generally look for existing trees to be retained whether or not they are covered by a TPO or within a Conservation Area.

Unauthorised removal or works to trees

Policy PT10

The Council will prosecute any tree owner who carries out or allows another to carry out on his/her behalf unauthorised works to a tree protected by a Tree Preservation Order or within a Conservation Area.

2.3.17
The Council values highly all its trees and particularly those covered by a Tree Preservation Order and within Conservation Areas and will strive to ensure the retention and good management of these trees. Legislation allows for the prosecution of land owners who carry out (or allow another to carry out on his/her behalf) unauthorised works to a tree protected by a Tree Preservation Order or within a Conservation Area. Unauthorised works are defined as works to a TPO’d tree which have been carried out without approval or works to a tree within a Conservation Area which the Council has not been given prior formal notification of. The law provides for a few exceptions to this for example if a tree is dead, dying or dangerous in which case formal authorisation may not be required. However, to avoid possible prosecution, land-owners with a tree which they consider to be dead, dying or dangerous are strongly recommended to request an inspection by the Council arboriculturist for this to be verified before it is removed.
2.4 Trees and the environment

Climate change and adaptation

2.4.1 Climate change is the single biggest threat to the presence of trees in urban areas in London. Our climate is changing and placing stress on our existing trees. An annual warming is predicted by the end of the century of between 1°C and 5°C (with greater warming in the Southeast than in the Northwest), together with an increase in the number of very hot days and a decrease in the number of very cold days. Winters are predicted to get wetter (by up to 30%) and summers substantially drier with a resultant increase in soil moisture in winter months and reduction in summer and autumn months. As a result of this, trees are likely to experience longer periods of drought-induced stress in the summer months and in this stressed condition, will be more susceptible to pests and diseases. Several of our native and semi-native species are already showing signs of struggling to cope with these changes (e.g. Beech and Horse Chestnut).

2.4.2 In addition, the greater variation in soil moisture content between summer and winter has resulted in a greater potential for seasonal shrinkage and expansion of soils (particularly the London Clay prevalent in Waltham Forest) and a resultant increase in concerns about tree-related subsidence of buildings and associated requests for the removal of trees. As a result of this, there has been a recent national trend of removal of large broadleaf trees and replacement with small ornamental trees. This may well bring advantages in terms of reduced risk of subsidence and reduced pruning costs but at the same time, it results in a substantial reduction in total tree cover and the associated potential benefits for mitigating climate change.

Policy CC1

The Council will seek to increase tree cover in the borough.

Policy CC2

Opportunities will be sought for planting additional trees within the borough with a preference for large-maturing species wherever space and ground conditions permit. Species selection for new planting will avoid species likely to be intolerant to climate change (e.g. Beech).

2.4.3 The role of trees is understood to be more important than ever in mitigating the effects of climate change. Trees limit the urban heat island effect; their shade can reduce the temperature of hard surfaces by several degrees and can act as a natural cooling system especially when planted by buildings. A recent study by the University of Manchester noted that a 10% increase in tree cover could contribute to reducing urban temperatures by 4°C.

2.4.4 In Waltham Forest, increasing tree cover is recognized as one of the principal methods currently available for mitigating and adapting to predicted climate change. Tree cover can be extended by both increasing the number of trees and the proportion of large-maturing trees.
Policy CC3

The Council will seek to increase the area of permeable surface within the borough especially in the vicinity of trees.

2.4.5
In urban areas, a large proportion of the ground is surfaced and impermeable with water draining to a piped collection system. This reduces the amount of water reaching the groundwater store and can increase the incidence of flash flooding. These problems have increased with climate change as increased winter rainfall has resulted in more flash flooding and in summer an increased incidence of drought conditions. The Council is generally promoting use of sustainable urban drainage systems (SUDS) to assist in increasing the area of permeable surfaces in the borough. This is particularly important in the vicinity of trees where the use of permeable paving or drainage to areas of soft landscape is advisable to increase the volume of water reaching trees and reducing the likelihood of drought stress.

Trees and biodiversity

2.4.6
Biodiversity is the term given to the variety of life on Earth, and the natural patterns formed as a result. Trees make a vital contribution to this both as a species in their own right but also as a habitat for other species particularly birds, bats and invertebrates. They are particularly important in urban boroughs like Waltham Forest where built development has resulted in the gradual loss of many other habitats and a large number of species.

2.4.7
The UK Biodiversity Action Plan was produced in 1994 and sets out action plans to identify, conserve and protect existing biological diversity in the UK, and identify opportunities for enhancement. Target habitats include Lowland Mixed Deciduous Woodland, Wet Woodlands and Grasslands. Target species include bat species and a wide range of birds.

2.4.8
London now has its own Biodiversity Action Plan (produced by the London Biodiversity Partnership) and Biodiversity Strategy (produced by the Greater London Authority in 2002) which set a framework for the protection and enhancement of the capital’s biodiversity. The London Action Plan includes a series of Species and Habitat Action Plans. This includes a Woodland Action Plan the aims of which are to:

- Conserve and enhance London’s woodland for the benefit of biodiversity and for both current and future generations of people
- Maintain, improve and promote the enjoyment and use of London’s woodlands
- Increase significantly the area of woodland in London, particularly in areas where there is little accessible woodland
- Increase the sustainable economic use of woodland in London

2.4.9
Waltham Forest has its own ‘Biodiversity Action Plan’ which includes a series of Habitat Action Plans including an action plan specifically for Woodland and Urban Forest Habitat in the borough. The following objectives are included for this habitat:

- To protect existing woodland habitat and tree coverage
- To secure appropriate management for all woodlands in the borough
- To expand the total woodland area by encouraging new planting and extension of existing woods
- To strengthen the ecological links between wooded areas
- To work with local people to encourage active community participation in improving enjoying and learning about woods and trees

Policy B1

The Council will seek to ensure that tree and woodland planting and management contributes to the overall biodiversity of the borough and will ensure that it is not detrimental to the aims and objectives of the borough’s Biodiversity Action Plan.
2.4.10
Tree and woodland planting provides a significant opportunity for increasing biodiversity in the borough. Native trees in particular support a wide range of species and Appendix E provides details of the number of insect species associated with different tree and shrub species.

**Policy B2**

The Council will seek to support Biodiversity Action Plan aims and objectives through tree and woodland planting and management. In particular, new planting will be used to create and strengthen east-west green links across the borough.

2.4.11
The creation of east-west green links across the borough are particularly important to provide connections between the Lee Valley Regional Park on the west side of the borough and Epping Forest on the east side.

**Landmark and veteran trees**

2.4.12
Veteran trees can be defined as: 'a tree that is of interest biologically, culturally or aesthetically because of its age, size or condition.' It is usually in the second or mature stage of its life and has important wildlife and habitat features.

2.4.13
Landmark trees are trees which give an immediate sense of place, that are recognizable features in the townscape and which often have significance to local communities. They may be veteran trees but are often younger. They may have been planted deliberately or may be survivors of a larger tree group or of a woodland. Some are privately owned trees and some are Council-owned.

**Policy LV1**

The Council will promote a programme of recording and interpreting landmark, and veteran trees in the Borough and identifying sites for planting of new future landmark trees.

2.4.14
The borough contains a number of veteran and ancient trees many of which are in woodlands. These are an important feature in the borough’s tree stock. However, they have not been formally recorded or mapped which makes it difficult to ensure their effective management and protection. The Council will initiate a project to record and map the borough’s veteran trees and will investigate the use of local volunteers to assist in this process. Tree Preservation Orders will be made to protect veteran and ancient trees once identified.

2.4.15
The Council also recognizes that there are many trees within the borough which although not veteran trees still form local landmarks and contribute to the identity of local areas. The Council will promote a programme of recording these trees and providing interpretation about their history and significance. Community groups will be encouraged to contribute to this record and identify sites where trees could be planted to form landmark trees of the future.
2.5  Tree management, maintenance and planting

Current tree management

2.5.1
The management works to Council owned trees across the borough vary considerably. At present, a large proportion of the tree budget is spent on reactive works as apposed to proactive management and the current system is inefficient in terms of officer time and budget. A three-year cyclical pruning programme is in place for the re pollarding of the Council's large, forest scale trees such as London Plane and Common Lime. This method of management is necessary as the trees are often too large for their location.

2.5.2
In addition to the above, the Council also carries out ad hoc tree inspections in response to requests/complaints from residents. Requests and complaints are logged using a paper-based system and any specified works are put out to tender to local tree surgery contractors on a job-by-job basis. This process is both time consuming and expensive. Strategies are set out below to improve both the quality and cost-effectiveness of the management of Council owned trees.

Tree management and maintenance programme

Procurement of arboricultural works

Policy TM1

The Council will employ a single term contractor to complete all arboricultural works in the borough including the recycling of all arisings.

2.5.3
The use of a single term contractor improves the efficiency of the tree team in dealing with requests/complaints from the public. A schedule of rates will be agreed at the tender stage and applied throughout the term of the contract. The recycling of waste produced from works to Council owned trees will be written into the contract along with the need for vehicles bearing the Council's logo to assure members of the public that the works are being carried out to a pre-agreed specification.

Use of tree management software

Policy TM2

The Council will seek to use tree management software, to map all Council owned trees and record all individual tree attributes. A database of the boroughs tree stock will be monitored to inform the management of the trees.

2.5.4
Many London Boroughs currently have (or are working towards) a computerised map-based record of all the borough’s trees with details of age size, species, management history and cyclical management requirements. This provides a comprehensive record of the borough’s street trees and allows for quick and cost-effective management through the generation of annual work schedules for cyclical works. Waltham Forest has an incomplete database of its street trees and it is recognised that considerable efficiencies could be achieved by completing this database.

2.5.5
Tree management systems can be used in conjunction with a Geographical Information System. Job sheets can be produced using the software which can be sent directly to the term contractor, using a pre-agreed schedule of rates. A database of the entire borough’s tree stock can then be produced from the software which is essential for management purposes.
Pruning and maintenance works

Policy TM3

Street trees will be inspected on a three year cycle in the three zones identified on Figure 6 and maintained as necessary.

2.5.6
A three year inspection cycle is considered to provide the necessary frequency of management works to ensure trees are maintained in a safe and healthy condition. Trees will be pruned for the reasons set out in policy TM4 below.

2.5.7
The adoption of a regular maintenance regime is beneficial both in cost terms and in providing clarity for residents and the general public. By providing clear information on when tree works will be undertaken the number of enquiries to the tree services section will be reduced and the amount of work undertaken in response to ad hoc requests will also be reduced.

2.5.8
In 2008 a three year cycle of inspection and management works to street trees was established and the borough was divided into three zones based on need for tree maintenance works at that time. The areas in greatest need of pruning were included in year one of the cycle, the areas of secondary need in year two and the areas of lowest need (at that time) in year three. Maintenance works are currently in year two of this cycle and this pruning cycle will continue.

The pruning cycle for street trees will be reviewed every three years (starting in 2011) and the zones or cycle amended if considered necessary.

2.5.9
The proposed pruning cycle is based on the cycle and zones established in 2008 and already in operation. It is important that the balance of work across the three years is even and it may be necessary to modify the zones slightly after the full cycle has been completed for the first time in 2011.

Policy TM5

The Council will prune trees for the following reasons only:

- To keep the highways infrastructure (e.g. street lights and road signs) clear of obstructions and maintain sightlines for vehicles and pedestrians;
- To abate an actionable nuisance, such as branches damaging windows and gutters;
- When reduction work has been specified in order to remediate a subsidence claim;
- When an inspection has identified visible decay, fungal brackets or other structural defects;
- When previous maintenance regimes have determined that future works are of the same specification for that specimen, e.g. pollarding, crown reduction; and
- When the tree has been identified as dead or dying.
2.5.10 Under the Highways Act, 1980 the Council has a duty to maintain a safe highway which includes the pruning of trees that may be causing an obstruction, the removal of trees that have been damaged by vehicles such that their structural integrity has been compromised or trees that have become unsafe due to storm damage or fungal decay.

2.5.11 The pruning works identified above will ensure that the health and vigour of street trees is maintained.

2.5.12 Many requests from residents to prune or remove Council owned trees are received for a variety of reasons that do not relate well to maintaining the Council's tree stock. Some examples of the scenarios in which the London Borough of Waltham Forest will not normally prune trees are as follows:

- **To improve reception for satellite television** - There is no legal right to television reception and the Council (or any other tree owner) has no legal obligation to remove or prune trees to improve reception. As a general policy the Council will not undertake the topping, thinning or felling of trees simply to improve television or satellite reception, where the trees in question would not otherwise require any surgery. When planning the siting of a new satellite receiver, residents are recommended to carefully consider existing trees and their potential for growth to avoid problems in the future.

- **To increase the amount of sunlight reaching properties or gardens** - There is no ‘right-to-light’ in relation to trees and the Council (and any other tree owner) is not legally required to prune a tree for the purpose of increasing light reaching a property or garden. However, the Council recognises that in some instances the canopy of street trees can grow close to properties and result in loss of light which is undesirable. Therefore, wherever possible this will therefore be managed as part of the three year pruning cycle for street trees.

- **To reduce ‘sap’ (honeydew) falling on vehicles or property** - Some trees particularly varieties of Lime (Tilia) and Maple (Acer) trees, are frequently infested with aphids that feed on the leaves of trees and produce a sticky substance (a form of ‘tree sugar’) which falls to the ground or any vehicle or object directly beneath it. This is a seasonal nuisance normally lasting two-three months in early summer. The Council is not required to, and will not, prune or remove affected trees or provide a cleansing service for this problem. However, the Council recognises that honeydew is a nuisance to some residents and will plant no further varieties of the following trees which are particularly prone to aphids, in locations where a nuisance could be caused: Small leaved lime (Tilia cordata), Common lime (Tilia x vulgaris), Caucasian lime (Tilia x euchlora) and Large-leaved lime (Tilia platyphyllos) and Sycamore (Acer pseudoplatanus). Residents are also recommended to make their own arrangements to minimise the effect of the nuisance (eg regular car washing, covering the car or parking cars in an alternative location where the problem is not present)

- **To alleviate seasonal or naturally occurring problems** - Falling leaves, fruit, seeds or berries, birdsong, bird droppings and pollen are natural processes and are not considered a justifiable reason for trees to be pruned or removed. If pavements become soiled or dangerous with debris from the tree this should be reported to the Council’s street cleansing service.

- To allow for vehicle crossovers, or facilitate car parking, except in extenuating circumstances.

2.5.13 The Council will also not normally permit pruning works to trees covered by a TPO for the reasons cited above.
Figure 6: Pruning cycle for borough street trees
Tree felling

Policy TM6

Council-owned trees will not be felled other than in exceptional circumstances such as where the tree is:

- dead, dying or dangerous
- seriously infected with a fungus or a disease or fungus which threatens to spread to other trees
- proven to be causing significant structural damage
- a species identified in Council or Government policy with a planned programme of phased removal and replacement
- part of an area with a planned management programme or an improvement project where removal of the tree is required

2.5.14
Council owned trees form an important part of the borough’s urban forest and the Council is committed to maintaining or increasing the current level of tree cover in the borough. In a few situations, removal of trees is necessary for health and safety reasons or for improving the quality of the borough’s tree stock.

2.5.15
It will not be Council policy to remove trees solely on the grounds that they are causing disruption to pavements, kerbs, garden paths and walls. In these cases engineering or other solutions will be sought.

Notification of tree removals

Policy TM7

Where practical the Council will place a notice on any tree which is scheduled to be removed ten working days in advance of tree removal and will inform residents adjacent to the tree by letter, unless:

- The tree has become dangerous and needs to be removed as a matter of urgency;
- The tree is obviously dead;
- The tree has failed to establish; or
- The tree is part of a wider management scheme that has been publicised elsewhere or placing of a notice is impractical.

2.5.16
The purpose of the notice is to inform residents of the intention to remove a tree. The Council recognises the level of public interest regarding the removal of established trees.

Notification of tree works generally

Policy TM8

The Council will publicise its programme for planned tree works on its website and will display street notices to inform residents one week in advance of programmed works setting out the type of work to be undertaken and why it is required. The Council will also notify the Highways Authority in advance of carrying out any tree works or excavations within the highway or footway.

2.5.17
The Council recognises that the public likes to know when tree works are planned in their local area and the reason why the work is to be undertaken. However in some instances it will not be possible to give advance notice of tree pruning/felling because of urgency of the required works. The Council also has a legal requirement to notify the Highways Authority in advance of carrying out the works to ensure that highways works are carried out in a co-ordinated manner.
Tree replacements

**Policy TM9**

When street trees are removed, the Council will seek to plant a suitable replacement in the first available planting season after its removal. Residents that live adjacent and opposite to where a tree is to be planted will be consulted and informed of the programme for replacement.

2.5.18
The Council aims to maintain or if possible increase the number of street trees in the borough. A regular programme of tree planting to replace those removed will contribute to this objective. The planting season for new street trees is normally mid November – beginning of March.

2.5.19
It is recognised that residents will be interested in their local street environment and will want to be informed about proposed tree planting in the vicinity of their homes.

**Policy TM10**

The Council will develop a programme for the replacement of street trees which have been removed in the past but not replaced.

2.5.20
The Council currently has a backlog of approximately 600 trees which have been removed in the past but have not been replaced. It is recognised that this is a significant number and replacement planting is necessary to ensure that tree cover in the borough is at least maintained. An adequate budget is not currently available for the replanting of all of these at once. However, a five year programme is proposed during which approximately 120 replacement trees will be planted each year.

**Species-specific re-planting programme**

**Policy TM11**

The Council will seek to replace the borough’s stock of Raywood Ash, where these are planted as street trees, with appropriate species and through a phased programme.

Further tree species to be considered for removal and replacement will be identified by a qualified arboriculturist and may include:

- London Planes planted within narrow streets;
- Over-mature cherries with large root stock causing severe damage to pavements;
- Common Limes planted in narrow streets; and
- Pillar apples planted in pavements.

2.5.21
In the past there has been some inappropriate tree planting on a number of the borough’s streets and these are currently causing management issues. In some cases the trees are too large for their situation and a large proportions of the Council’s tree budget is spent on their continued maintenance. In others the species used is considered inappropriate for use as street trees and present their own management issues. In most cases the trees have been planted in the wrong situation which has caused the problems to arise.

2.5.22
Raywood Ash (*Fraxinus angustifolia*) develop weak branch unions and large branches are often shed as they mature. The management response to this is to reduce the branches in length before they fail but the species does not respond well to this form of management and die back occurs from the pruning points. The new growth that follows the pruning is often poor and structurally weak, further exacerbating the problem.
2.5.23
Pillar Apples (*Malus tschonoskii*) produce large pulpy fruit in the autumn. This is not a problem when the trees are young, due to the small numbers of fruit produced, but when the trees reach maturity large numbers of fruit can be produced and fall in autumn months. This does not cause a significant nuisance when the trees are planted in grass verges however, in pavements the fruit is quickly squashed and can become a slip hazard.

**Quality of arboricultural work**

**Policy TM12**

All works to Council owned trees and trees covered by a TPO will be carried out best practice (eg in accordance with BS3998 Recommendations for Tree Work) and in the appropriate season (except when emergency work is required).

2.5.24
BS3998 1989 Recommendations for Tree Work (and subsequent revisions) sets out best practice for undertaking arboricultural works. Adherence to these recommendations during tree works will ensure that the potentially adverse effects to the health, vigour and aesthetic qualities of trees resulting from pruning work are minimised.

2.5.25
Due regard will also be given to the Wildlife and Countryside Act 1981 in respect of the protection of wildlife and habitat, particularly nesting birds or bat roosts when carrying our maintenance to Council owned trees.

**Tree planting programme and opportunities**

**Policy TP1**

The Council will seek to increase the number of trees on public land throughout the borough and particularly within areas identified as ‘Strategic priority areas for tree planting’ (Figure 7).

2.5.26
The Council is committed, wherever possible, to increasing the number of trees under its ownership. New planting opportunities will be sought in streets, public open spaces, housing sites and on educational land.

2.5.27
Target areas for new planting are based on those identified in the Tree and Woodland Framework for London and comprise:

- Appropriate sites in deprived areas
- Key transport corridors and gateways identified in the borough’s highways capital programme and with tree planting identified in the relevant public realm strategies for the routes (particularly along the Olympic Approach routes)
- Large areas of open space with little existing natural value (including school sites)
- Derelict sites
- Public realm within new developments

Priority will be given in particular, to sites which contribute to the creation of east-west green links across the borough. Figure 7 below illustrates strategic priority areas for tree planting in the borough for the next ten years.
2.5.28 The Council will look to fund tree planting projects by utilising funding streams such as the Forestry Commission Woodland Grants Scheme (for woodland planting), Transport for London (TFL), local government initiatives and through Highways funded projects such as junction improvements. Private sponsorship will also be sought from local residents and businesses through an ‘Adopt a tree’ scheme. Section 106 agreements will continue to be used to secure funding for tree planting in the public realm through planning agreements.

Policy TP2

Where highways schemes are programmed, the Council will develop supporting tree planting programmes for the routes.

2.5.29 Highways improvement schemes are planned for key routes and corridors within the borough including the Olympic Approach routes and the “High Street Life” Waltham Forest Project. These are priority areas for tree planting and it is important that tree planting programmes are considered as an integral part of these schemes and implemented at the same time as the highways works. In highways schemes, opportunities for new tree planting should be sought in particular in the following locations and circumstances:

- At gateway locations along key routes in the borough (particularly along the Olympic approach routes as set out in the Olympic Gateway Initiative , Urban Initiatives, 2009)
- In central reservations and along dual carriageways routes
- As landmark features using large forest-scale trees or distinctive ornamental species to punctuate the townscape and assist wayfinding
- As an alternative to street furniture to add character to an area and reduce street clutter

Responses to requests for new tree planting

Policy TP3

The Council will seek to respond to requests from the public for new planting where the proposed location is within strategic priority areas for tree planting.

2.5.30 The Council receives many requests from the public for new tree planting and welcomes suggestions for appropriate locations for new trees. However, due to the limited budget available for new planting there is a need to prioritise areas. New planting will normally only be carried out in areas that have been identified as strategic priority areas for tree planting. Requests for planting in other areas will not normally be met although the Council will consider requests for planting in these areas if residents wish to provide sponsorship for the tree planting.

Community involvement in planting

Policy TP4

The Council will seek to consult and involve local communities in new planting initiatives.

2.5.31 The Council will explore the possibility of community led tree planting initiatives such as community orchards on housing land. The Council will also explore the possibility of a ‘tree giveaway day’ where the Council donate small trees to the public for planting in their gardens along with a simple fact sheet on tree planting and aftercare.

2.5.32 The Council will ensure consultation is undertaken with residents regarding tree planting projects providing details of possible alternatives. Methods of consultation include letter drops, discussions with Tree Wardens and ‘Friends of’ groups and notification of residents associations and Councillors will take place before any works are carried out.
Figure 7: Strategic priority areas for tree planting

- Borough boundary
- Priority areas for tree planting
- Key East-West corridors
- "High Street Life" public realm project
- Other key transport corridors
- Schools
- London Mayor’s Office Tree Planting Priority Zone 1
- London Mayor’s Office Tree Planting Priority Zone 2
- Open space
Policy TP5

The Council supports ‘The Big Tree Plant’ campaign and welcomes applications for community-led tree planting initiatives on council-owned land (subject to suitability of the site)

2.5.33
‘The Big Tree Plant’ campaign was launched by the government in December 2010 and aims to encourage tree planting and tree care initiatives in England’s towns, cities and neighbourhoods. From April 2011, funding will be available for community led tree planting initiatives. The council supports this campaign and welcomes proposals from local communities for tree planting projects on council-owned land. These proposals will be reviewed and if the tree planting is considered to be appropriate to the site, the application will be supported.

Policy TP6

The Council will seek to provide training to borough residents (including Tree Wardens, Streetwatchers and Friends Groups) interested in being involved with tree monitoring and planting initiatives.

2.5.34
The Council recognises that training is necessary to provide volunteers with the necessary knowledge and expertise to assist them in developing a role in the monitoring of trees. Tree Wardens and local ‘Streetwatchers’ can play an important role in monitoring Council owned trees and can provide an important link between residents and Council officers. The Council currently run a young tree warden scheme in conjunction with London Wildlife Trust. The aim of the scheme is to improve community involvement in tree related matters and to provide a forum in which to educate young people about trees and their benefits and requirements.

Policy TP7

The Council will encourage sponsorship of trees by residents, businesses and community groups with its adopt-a-tree initiative.

2.5.35
The adopt-a-tree scheme provides the opportunity for businesses, community groups or individuals to sponsor new tree planting in the borough’s parks and open spaces. It is a great way to give something back to the community and can be used by businesses wanting to highlight their green credentials, or an individual wanting to give a special gift or dedication. Interested groups or individuals can identify locations for new tree planting, select an appropriate species (in consultation with the Council arboriculturist) and sponsor the cost of the planting and maintenance works as it establishes. Further details on the adopt a tree scheme are provided on the Council website or by calling/emailing Waltham Forest Direct.

Policy TP8

The Council will establish an annual dedicated tree planting budget.

2.5.36
By ring-fencing an annual budget for tree planting this will ensure that funding is available each year for new tree planting. This will ensure that replacement planting is carried out for any trees that are removed.
Species selection and planting principles

Species selection

Policy TP9

When planting trees, the London Borough of Waltham Forest will select species based on the principles of ‘right tree, right place’. Where space permits, there will be a presumption in favour of large shade-producing forest-scale trees with maximum opportunities for mitigating the effects of climate change.

2.5.37
The principal objective of the Mayor of London’s Tree and Woodland Framework for London and the Government’s Strategy for Trees, Woods and Forests is ‘right tree, right place’. The careful selection of appropriate tree species is essential to minimise future nuisance issues and maintenance costs. However, the Council recognise that larger trees play an important role in terms of environmental benefits and will look to plant such species where they have room to develop without the need for regular pruning for example in parks and open spaces.

2.5.38
Appendix C provides a list of suggested species for tree planting in the borough which meet the principles of ‘right tree, right place’ for street trees, private gardens and parks and open spaces. However, it is difficult to be prescriptive about the selection of tree species as every site for tree planting has its own unique conditions which must influence the choice of species. Species selection will need to consider:

- The space available and the potential size of a tree as it matures
- Ground conditions (in particular soil type and drainage)
- Urban form and the opportunity for trees to contribute to this
- Urban character and the opportunity for trees to strengthen areas of weak character or reinforce areas of strong character
- Aesthetic considerations and the form of tree most appropriate to suit this
- Historic associations and the opportunity for new tree planting to reflect historic planting patterns
- Ecological considerations and the opportunity for contributing to local biodiversity

Policy TP10

The Council will ensure that the location, species selection and planting specification of all new tree planting by the Council is approved by an arboriculturist prior to implementation.

Policy TP11

The Council will ensure that all services, departments and organisations managing Council land obtain consent from the Council Tree Service section before pruning, removing or planting any tree.

2.5.39
As noted above, the selection of tree species is a complex decision requiring consideration of many different issues. Inappropriate choice of species can result in failure of the tree to survive or significant associated costs as regular management works are required to minimise potential problems. Arboricultural advice is essential to ensure that tree planting and tree works are appropriate and will not bring problems in the future.

Policy TP12

The Council will seek to ensure that all new tree planting is specified in a suitable location with appropriate tree pit, ground preparation, staking, irrigation drainage (if necessary) and protection details to ensure its healthy establishment and the pavement around tree pits reinstated.
2.5.40
Successful establishment of trees in urban situations is dependent on the location, size and make up of the tree pit, good ground preparation and appropriate staking, irrigation and protection details. Roots need to explore the subsoil beneath paving in order to absorb sufficient water and nutrients to survive dry periods in the summer so the bottom and sides of tree pits should be in contact with the subsoil. Where the subsoil has been removed and replaced with aggregate or has been over compacted, tree roots are likely to explore the sand layer beneath paving causing the slabs to lift and create trip hazards.

2.5.41
When new sites for tree planting are identified, trial pits need to be excavated and inspected by a qualified arboriculturist. If the sides and bottom of the proposed tree pit are not in contact with the subsoil then the size of the tree pit should be increased by incorporating root cells beneath the paving to allow for the future growth of the tree.

2.5.42
The specification of tree pits will vary depending on the nature of the site for the proposed tree. For example, a new tree in a paved town centre precinct will require a different specification to a new tree within an existing tarmac pavement. Tree pit location and specification will need to consider:

- The type of surfacing around the tree (grass, tarmac, slabs etc)
- Ground conditions (in particular soil type, pH and drainage)
- The vulnerability of the site to vandalism
- Presence of street lighting
- Space available for the tree pit
- The species of tree proposed (including ultimate size of the tree at maturity)
- The presence of any services or utilities
- The proximity of properties
- The shape of the tree pit (on clay soils tree pits should be square or oblong)

2.5.43
Where possible new trees should be aligned with property boundaries to reduce shading of properties and so they do not exist or proposed vehicle crossovers.

Emergency procedures

2.5.44
Emergency procedures are required to deal with issues that need an unexpected immediate response. This is likely to be either as a result of:

Storm damage - when a tree or group of trees have fallen or dropped limbs injuring people or property, disconnecting or disrupting services, obstructing routes or creating a serious risk of any of these; or

Unlawful removal or works to trees - when a tree protected by a Tree Preservation Orders or within a Conservation Area is felled or pruned without approval from the local planning authority.

Policy TP13
The Council will provide a 24 hour arboricultural service to respond to emergency situations.
2.5.45
In cases of storm damage and unlawful removal or works to trees, the advice of a Council arboriculturist or Council arboricultural contractor is required at short notice to identify works required to make trees safe and ensure any unlawful works are recorded and stopped at the earliest possible moment. The Council will also carry out emergency inspections of trees during and after storms if requested by a member of the public due to concerns about the safety of a tree.
Figure 8: Typical detail for planting pit in hard paving

Figure 9: Typical detail for tree pit in planted area
2.6 Trees and subsidence

Subsidence in Waltham Forest

Policy S1

The Council will manage its tree stock to minimise the risk of tree-related subsidence. Location and species for new tree planting will be selected to minimise the risk of tree-related subsidence.

2.6.1 Waltham Forest, in common with many London Boroughs has large areas of London Clay. The clay is susceptible to the development of a soil moisture deficit, causing it to shrink during and following spells of dry weather and swelling following periods of wet weather as the clay rewets. This periodic shrinking and swelling of the subsoil can cause built structures to move with the subsoil. Where movement is limited it often goes unnoticed. However, the presence of trees and other vegetation in close proximity to built structures can exacerbate the soil shrinkage by causing a persistent soil moisture deficit to develop. This may result in further incremental shrinkage, resulting in differential movement in the building and the formation of cracks. Subsidence cracks generally open in late summer as the ground becomes dryer and moisture uptake by vegetation reaches a peak, closing in the winter as the ground becomes wetter, vegetation becomes dormant and moisture uptake by roots reduces. However, the subsoil beneath a built structure may not regain sufficient moisture during winter months causing the cracks to stay open.

2.6.2 The Council recognises that trees under its ownership may be implicated in causing subsidence damage to nearby built structures but is also aware that this is not always the case and that nearby trees often get blamed for damage before a thorough investigation is carried out. The Council’s insurance section currently works with an independent arboricultural consultancy in dealing with a backlog of claims whereby the implicated tree is assigned a monetary value using the London Tree Officers Association (LTOA) CAVAT (Capital Asset Value for Amenity Trees) system (see para 1.1.6). The value of the tree determines the level of information required from the claimant and the Council’s response to the management of the tree. For example a tree with a low monetary value that has been implicated as causing subsidence will be removed whereas an implicated tree with a high monetary value is more likely to be entered into a cyclical pruning regime in order to reduce its water demand.

Policy S2

The Council will manage and process claims in accordance with the LTOA’s Risk Limitation Strategy and the Joint Mitigation Protocol.

2.6.3 All new subsidence claims against Council owned trees will follow the LTOA’s third edition of the Risk Limitation Strategy and the Joint Mitigation Protocol as outlined below and will require the following information as a minimum:

- An engineer’s report detailing damage to building (location, nature, BRE category, crack monitoring, drainage survey).
- Plan and profile of foundations.
- Site plan indicating location of structure in relation to trees and other vegetation in the vicinity.
- Arboricultural report.
- Results of soil investigation tests confirming profile, moisture content, plasticity index, soil moisture deficit and tree root identification.

LTOA - Risk limitation strategy for tree roots claims

2.6.4 The London Tree Officer’s Association (LTOA)’s Risk Limitation Strategy for Tree Roots Claims is widely considered current industry best practice for dealing with tree related subsidence claims. The LTOA recommends that all London Boroughs adopt the following strategy into their own Tree Strategy:
Publicly owned trees:

- 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.

Privately owned trees:

- 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.

All trees:

- Local authorities challenge unwarranted claims based on poorly investigated or inaccurate evidence.


2.6.5
The Council supports the LTOA approach and will work towards implementing effective tree management regimes and promoting appropriate future planting to minimise the risk of tree subsidence now and in the future. It also recognises that in some cases management regimes will not be sufficient to reduce the risk of subsidence and it may be necessary for certain trees to be removed and replaced with a more suitable species.

2.6.6
The LTOA document also recommends assigning a monetary value to all street trees using CAVAT, which presents trees as an asset as opposed to a liability. The level of information required can then be specified by the Council. This forms the basis of the Joint Mitigation Protocol which was produced with input from insurers, local authority tree and risk managers, loss adjusters, engineers and arboricultural consultants. The aim of the document is to standardise the management of claims relating to trees whilst also recognising the value of the trees to the borough. A copy of the Submission of Evidence form from the Joint Mitigation Protocol can be found in Appendix D.
PART THREE – Delivery

God has cared for these trees, saved them from drought, disease, avalanches, and a thousand tempests and floods. But he cannot save them from fools.

- John Muir
3.1 Action Plan for delivering the tree strategy

3.1.1 An Action Plan to support the implementation of the Tree Strategy for 2010 – 2020 is set out below. This takes each of the key objectives of the tree strategy and identifies the actions necessary to fulfil these objectives. It identifies a timeframe for each of the actions together with the organization/individual responsible for leading implementation of the action together with any other partners which should be involved.

3.1.2 The Action Plan is ambitious and will require a substantial input of time and resources to ensure its implementation. However the long term results of implementing these actions will result in a significant improvement to the character and quality of the borough as a whole. Implementation of the actions will raise the quality of the borough’s tree stock and the quality and profile of the borough’s tree services. To ensure its successful implementation, it is essential that the Tree Strategy has the full political, public and cross-departmental officer support.

<table>
<thead>
<tr>
<th>Action</th>
<th>Timeframe</th>
<th>Lead</th>
<th>Other partners</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.1</td>
<td>Carry out review of all TPOs within the borough</td>
<td>March 2012 LBWF TPO officer</td>
<td></td>
</tr>
<tr>
<td>1.2</td>
<td>Identify opportunities for new TPOs within the borough</td>
<td>March 2012 LBWF TPO officer</td>
<td></td>
</tr>
<tr>
<td>1.3</td>
<td>Incorporate detailed tree policies within the Development Management Policies DPD (LDF)</td>
<td>March 2011 Development management team</td>
<td></td>
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<tr>
<td>2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.1</td>
<td>Plan and implement a replanting programme for the 600 street trees recently removed and not replaced</td>
<td>March 2011 LBWF Service Development Manager</td>
<td>New arboricultural contractor</td>
</tr>
<tr>
<td>2.2</td>
<td>Programme and Monitor number of replacement trees planted each year</td>
<td>Annually in March LBWF Service Development Manager</td>
<td>New arboricultural contractor</td>
</tr>
<tr>
<td>2.3</td>
<td>Prepare leaflet and web page promoting tree planting in private gardens</td>
<td>March 2012 LBWF TPO/ Nature Conservation officer</td>
<td>New arboricultural contractor</td>
</tr>
<tr>
<td>2.4</td>
<td>Investigate opportunity for securing funding to promote tree planting in private gardens</td>
<td>October 2011 LBWF Service Development Manager</td>
<td>New arboricultural contractor</td>
</tr>
<tr>
<td>2.5</td>
<td>Annual Monitoring of total number of new trees planted and successfully established each year</td>
<td>Annually in March New arboricultural contractor</td>
<td></td>
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<tr>
<td>3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.1</td>
<td>Introduce programme of inspection of Council owned trees in public open spaces, cemeteries and woodlands</td>
<td>July 2011 LBWF Service Development Manager</td>
<td>New arboricultural contractor</td>
</tr>
<tr>
<td>3.2</td>
<td>Establish liaison and annual meeting with Epping Forest and Lee Valley Regional Park Authority to ensure management of the borough’s tree stock is co-ordinated and best-practice is shared.</td>
<td>September 2011 LBWF Service Development Manager</td>
<td>City of London Corporation Lee Valley Regional Park Authority</td>
</tr>
<tr>
<td>Action</td>
<td>Timeframe</td>
<td>Lead</td>
<td>Other partners</td>
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</tr>
<tr>
<td>3.3</td>
<td>2011</td>
<td>LBWF Service Development Manager</td>
<td>New arboricultural contractor</td>
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<tr>
<td>3.4</td>
<td>October 2011</td>
<td>LBWF TPO &amp; Nature Conservation Officer</td>
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</table>

4 **Objective: Raise profile and understanding of trees and tree issues within the borough**

<table>
<thead>
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<th>Action</th>
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<th>Lead</th>
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<tr>
<td>4.1</td>
<td>April 2011</td>
<td>LBWF Service Development Manager</td>
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<td>4.2</td>
<td>September 2011</td>
<td>LBWF Community Project Co-ordinator (Green Space)</td>
<td>New arboricultural contractor Cemeteries Service</td>
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<td>4.3</td>
<td>July 2011</td>
<td>Public Realm Business Unit</td>
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<tr>
<td>4.4</td>
<td>Sept 2011</td>
<td>LBWF Service Development Manager</td>
<td></td>
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<tr>
<td>4.5</td>
<td>Annual</td>
<td>LBWF Service Development Manager</td>
<td>New arboricultural contractor</td>
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<td>4.6</td>
<td>Annual</td>
<td>LBWF Service Development Manager</td>
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</table>

5 **Objective: Increase efficiency and cost-effectiveness of tree services section and procurement of tree management and maintenance works**

<table>
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<th>Action</th>
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<th>Other partners</th>
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<td>April 2011</td>
<td>LBWF Service Development Manager</td>
<td></td>
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<td>5.2</td>
<td>2015</td>
<td>LBWF Public Realm Business Unit</td>
<td></td>
</tr>
<tr>
<td>5.3</td>
<td>July 2011</td>
<td>New arboricultural contractor</td>
<td></td>
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</tbody>
</table>

6 **Objective: Support the creation of east-west green corridors across the borough**

<table>
<thead>
<tr>
<th>Action</th>
<th>Timeframe</th>
<th>Lead</th>
<th>Other partners</th>
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<tbody>
<tr>
<td>6.1</td>
<td>2015</td>
<td>Public Realm Business Unit</td>
<td>London Green Grid</td>
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</tbody>
</table>

7 **Objective: Reduce the number of claims for tree-related subsidence**

<table>
<thead>
<tr>
<th>Action</th>
<th>Timeframe</th>
<th>Lead</th>
<th>Other partners</th>
</tr>
</thead>
<tbody>
<tr>
<td>7.1</td>
<td>2011</td>
<td>LBWF Service Development Manager</td>
<td>New arboricultural contractor</td>
</tr>
</tbody>
</table>
3.2 Monitoring and review

3.2.1
It will be necessary for monitoring to be carried out to allow the success of the tree strategy to be assessed and to assist in identifying areas where new or amended tree policy is necessary. A series of performance indicators have been identified to facilitate this monitoring and are detailed below:

- No. of new trees successfully established each year
- No. of vacant tree pits planted with replacement trees
- No. of street trees removed that were replaced within three weeks
- No. of management plans produced and successfully implemented for woodland sites
- No. of trained Tree Wardens actively taking part in community events
- No. of street trees maintained on a three year cycle
- No. of parks and open space sites in which trees have been inspected and database updated
- No. of Insurance claims successfully defended and amount spent on insurance claims
- No. of trees removed or permitted to be removed by the Council

3.2.2
This tree strategy will need to be reviewed and updated on a regular basis. It should be a dynamic document which can respond to changes in the borough, new legislation and emerging industry best practice. As a minimum it is recommended that the tree strategy is reviewed every five years. The review should include:

- A detailed analysis of the monitoring information
- Identification of any obstacles or barriers to implementation and delivery of the policy contained within the strategy
- Recommendations for amendments to the strategy to respond to findings from the above
3.3 Consultation and community involvement

Consultation and community involvement in preparation of the draft Tree Strategy

3.3.1
A stakeholder consultation exercise was undertaken at the start of the project to both inform key stakeholders that a tree strategy was being produced and to assist in identifying the key issues that the tree strategy should address. An initial stakeholder meeting was held at the start of the project with a range of Council officers whose remit in the borough included some involvement with trees. Officers were provided with an introduction to the project and the scope of the work to be undertaken. This was followed by a discussion about the key tree issues that the officers came across in their work. Common problems were identified together with issues lacking clarity and opportunities for improvements within the borough.

3.3.2
All other stakeholders were notified by email of the project, its purpose and the key themes that it was intended that the strategy would cover. Stakeholders were invited to respond and identify what they considered to be tree issues that needed to be addressed within the strategy. A list of consultees for the project is provided in Appendix A. The emails were followed up with telephone interviews and/or meetings with key stakeholders to discuss the issues in more detail.

3.3.3
In addition to the above a tree focus group meeting was held with representatives from the Streetwatchers group and Park Friends groups on April 21st at Waltham Forest Town Hall. The meeting was used to outline the purpose of the tree strategy and to discuss three main topics: a) the value and importance of trees in the borough, b) key tree issues in the borough and c) opportunities for community involvement in managing local trees.

Consultation on the draft Tree Strategy

3.3.4
The draft tree strategy was published on the council website during August 2010 and an on-line questionnaire was provided. Two-hundred-and-thirty-three on-line questionnaires and four written responses were received. This was high compared with other similar consultations (for example the Open Spaces Strategy had 29 questionnaires completed and one written response).

3.3.5
The majority of comments received were in support of the strategy or elements of it, and as a result did not lead to substantial changes to the strategy. However, amendments were made to the text to reflect some minor inaccuracies and consultees’ priorities. In particular, the order in which Objectives were presented has been changed to reflect the respondent’s views about which of these are more important. In response to comments made, a policy has been added in relation to: the recording and identification of landmark trees; and a commitment made to producing a document to advise residents on tree planting on their own property. Similarly, the potential impact that street trees can have on the visually impaired and those using wheelchairs or buggies where pavements are narrow, has been added as a Key Tree Issue in the strategy. In addition to these changes, and in response to “The Big Tree Plant” campaign launched by the Government in December 2010, a policy for community-led tree planting has also been added to the strategy.
3.3.6
A number of other comments were made at a level of detail that ought not be accommodated in a borough-wide strategy but nevertheless can be reflected in the way that the strategy or other actions taken by the Council are applied.

Community involvement in the delivery of the Tree Strategy

3.3.7
The success of the Tree Strategy will be greatest if it has the support of the borough’s community and the involvement of the community in its implementation. The following measures are proposed to promote community support and involvement in the Tree Strategy:

- Public consultation on the draft Tree Strategy
- High profile launch of the final Tree Strategy with press and web releases and possible borough Tree Day
- Re-launch and increased promotion of the Tree Warden and Young Tree Warden Scheme
- Increased involvement of the borough’s Streetwatchers in monitoring street trees
- Organisation of a veteran tree hunt for the borough
- Re-launch the Council’s tree sponsorship scheme
- Launch of initiatives to encourage new tree planting in private gardens
Appendix A – List of consultees

- Ascham Homes
- Epping Forest
- Lee Valley Regional Park Authority
- Waltham Forest Streetwatchers
- VT Education
- Design for London
- Forestry Commission (London)
- East Architects (Leyton Links project)
- Police crime prevention officer

**LB Waltham Forest Officers**
- 2012 Project manager
- Arboriculture
- Climate Change
- Environment Group
- Green Spaces
- Highways
- Planning Development Management
- Planning Policy
- Public Realm
- Safer Neighbourhood team
- Special Projects (customer services)

**LB Waltham Forest Councillors, cabinet members**
- Cllr Bob Belam (Environment)
- Cllr Geraldine Reardon (Leisure, Arts and Culture)

**Friends Groups**
- Friends of Abbotts Park
- Friends of Ainslie and Larks Woods
- Friends of Friendship Garden
- Friends of Henry Reynolds Park
- Friends of Hawkwood Nature Reserve
- Friends of Lloyd Park
- Friends of Stoneydown Park
- Friends of Brooks Farm and Skeltons Lane Park
- Friends of St Mary’s Nature Reserve (Leyton E10)
- Bushwood Area Residents association
## Appendix B

### CONSERVATION AREAS IN WALTHAM FOREST

<table>
<thead>
<tr>
<th>CONSERVATION AREA</th>
<th>PROPERTIES/LAND INCLUDED</th>
<th>UDP MAP REF.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>The Green, Chingford</strong></td>
<td>The Green Walk; 1-10 (all), Mornington Hall; 1-4 Jubilee Villas; Creswick Cottage; Carbis Cottage: Queen's Walk; 1-4 (all); King's Head Hill; 1-7 (odd), 4, 2a (King's Head Public House), 2 (Police Station): The Ridgeway; 1a, 1b, 1c: The Green; Courtlands, Highcroft, Beechcroft, The Lodge, Kilgreana Tudor Lodge, Summerdown: Elmdene; 1-6 (all); Crown Buildings, Crown Garage: Bull and Crown Public House; St.Peter's and St.Paul's Church; North Chingford Library, Chingford Assembly Hall; Station Road; 1-47 (odd), 2 (Electric House), St.Mary's R.C. Junior School, St.Mary's Roman Catholic Church, Chingford Methodist Church: Kings Road; 1 (Presbytery): Woodberry Way; 73 and 74: Carbis Close; 1: Open land, (Chingford Green) bounded by Green Walk; The Green; Station Road and Parkhill Road, forming Chingford Green</td>
<td>C1</td>
</tr>
<tr>
<td><strong>Ropers Avenue/Inks Green, Highams Park</strong></td>
<td>Ropers Avenue; 1-83 (odd), 2-82 (even), Inks Green Bowling Green/Pavilion: Inks Green; 1-9 (odd), 2-68 (even): Underwood Road; 75-107 (odd), 38-42 (even): Larkshall Road; 315-321 (odd).</td>
<td>C2</td>
</tr>
<tr>
<td><strong>Woodford Green</strong></td>
<td>Chingford Lane; 72 (Village Heights 1-49): Churchill Mews; 1-5 (all); High Elms; Woodford Green United Free Church, 1-3 (all), and 1-3 (all) Elm Terrace: High Road; Woodford County High School for Girls, including school buildings, sports ground and pavilion, and tennis courts: Mill Lane; 39: Sunset Avenue; Woodford Green Primary School: The Charter Road; 2: The Square; 10, 20 and 22: Epping Forest Land bounded by Lodge Villas (highway); Woodford New Road, St. Margarets Church, &amp; 1-5 Churchills Mews, White House building and grounds; including North and South Lodge and horse ride: Epping Forest Land between Woodford Green Primary School and Village Heights and Woodford Green United Free Church, and bounded on the east side by the Borough boundary. Note: Land on the east side of the Borough boundary adjoining this Conservation Area has been designated as a Conservation Area by the London Borough of Redbridge.</td>
<td>C3</td>
</tr>
<tr>
<td><strong>Leucha Road, Walthamstow</strong></td>
<td>Leucha Road; 1-175, 185-231 (odd), 2-184 (even)</td>
<td>C4</td>
</tr>
<tr>
<td><strong>Walthamstow St. James</strong></td>
<td>Main building - Mission Grove primary school, land south of Mission Grove; including car park, former Buxton Road Bingo Hall, car park and service area of 43-49 High</td>
<td>C4A</td>
</tr>
<tr>
<td>CONSERVATION AREA</td>
<td>PROPERTIES/LAND INCLUDED</td>
<td>UDP MAP REF.</td>
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<tr>
<td><strong>St Mary's Church (Walthamstow Village)</strong></td>
<td>Street,1-9 Clockhouse, 13 Pretoria Avenue, Car park at 12 Mission Grove, High Street; 7-107 (odd) and 2-96 (even), St James street; 7-23 (odd) and St James Street station buildings, St James Street; 2– 20 (even).</td>
<td>C5</td>
</tr>
<tr>
<td><strong>Forest School</strong></td>
<td>Church Hill; Walthamstow Girls' School including School Lodge 115,117 (Vicarage), Monoux Almshouses 1-14 (all): Woodbury Road; Church Hill Nursery School: Church End; St.Mary's Church (including graveyard and ancillary land); 2-7 (all), 8 (St.Mary's Welcome Centre), 9 &amp; 10, Squires Almshouses 1-6 (all): Church Path;1-21 (odd): Vestry Road; National Spiritualist Church, Vestry House Museum and adjoining land: Church Lane; 2-12 (even): Bishops Close;19-21 (all): Orford Road;2-12 (even),1a-11 (odd), 13 (St.Mary's Church House 1-31 all): St.Mary's Road; 2,2a: Railway cutting between Vestry Road and Orford Road.</td>
<td>C6</td>
</tr>
<tr>
<td><strong>Orford Road/Eden Road/ Grosvenor Park Road, Walthamstow</strong></td>
<td>Oakhurst Gardens;1-13 (odd): Oakhurst Close; 1-13 (all): College Place;1-17 (odd), Forest School (all buildings and land including sports ground): Forest Court;1-63 (all): Buxton Drive; Buxton Lodge; 1-6 (all): Buxton House;1-40 (all): The Forest; Oxley House (1-2), Evesden (1-2), Gwydr Lodge, Ivy Cottages (1-2), Wistaria Cottage, Clyptos, Marryatt's Lodge: Epping Forest land bounded by Oakhurst Gardens, Forest School Epping Horse Ride, Snaresbrook Road and Woodford New Road.</td>
<td>C7</td>
</tr>
<tr>
<td><strong>Whipps Cross Road/Forest</strong></td>
<td>Grosvenor Park Road;2-78 (even), 17-25 (odd): Park Court;1-44 (all), Employment Service Offices,59-73 (odd): Grosvenor Rise East;1-13 (odd), 15 (Public House), 2-32 (even), 34-42 (even), 44 (Flats 1-6): Pembroke Road;1-21 (all), and 21a, 1a (Hastingwood Court, Flats 1-21), 23 (Windmill Public House), 2-36 (even): East Avenue;1-27 (odd), 2-8 (even): Wingfield Road; 1-47 (odd), 2-26 (even), 1a (Arden Court, Flats 1-8): Orford Road;17-71 (odd), 73 (Orford House) including bowling green, 14 (Homecroft House Flats 1-50), 14a,14b (Old Town Hall), 16-18 (even), 18a (Asian Centre), 20-42: Eden Road;1-23,25 (1-22 Cherry Close), 27-45 (odd), 2-60 (even): Beulah Road; 9-103 (odd), 2-118 (even): Grove Road;123: Vestry Road;1-5 (odd), 7 (Post Office Depot), 11, Hillside Children's Playground (Formerly Church Common): Berryfield Close;1 (Flats 1-6), 3-15 (odd): Ravenswood Road; 46 Comely Bank Clinic &amp; Toy Library and adjacent site: Randolph Road;1-21 (all): Eden Grove; 9-18 (all): Shirley Close;1-19 (all), 20 (Tom Thumb Nursery): Addison Road;1a (Clinic), 1b (Toy Library)</td>
<td>C8</td>
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</table>
### CONSERVATION AREA

<table>
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<tr>
<th>AREA</th>
<th>PROPERTIES/LAND INCLUDED</th>
<th>UDP MAP REF.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glade, Leytonstone</td>
<td>Colworth Road; 122-128 (even); Hainault Road; 224, 329; Forest Glade; 1-24 (all); Whipps Cross Road; 107-157 (odd); Hindu Mandir (Temple): Epping Forest land bounded by James Lane, Whipps Cross Road and Forest Glade, St Andrew's Church and Hall, and Leytonstone School</td>
<td></td>
</tr>
<tr>
<td>Browning Road, Leytonstone</td>
<td>Browning Road; 1-51 (odd); 2-14, 18-26, 26A, 28-32 (even); 52-58 (consecutive); Beacontree Road; 7</td>
<td>C9</td>
</tr>
<tr>
<td>Thornhill Road, Leyton</td>
<td>Thornhill Road; 35-41 (odd); 57-75 (odds), and 18-70 (even); Rosedene Terrace; 25-27 (all).</td>
<td>C10</td>
</tr>
</tbody>
</table>

### AREA OF SPECIAL CHARACTER

<table>
<thead>
<tr>
<th>AREA OF SPECIAL CHARACTER</th>
<th>PROPERTIES/LAND INCLUDED</th>
<th>UDP MAP REF.</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Higham's Estate, Chingford E4</td>
<td>Keynsham Avenue 1 to 44 (all); Mason Road 1 to 7 (all); Lichfield Road 1 to 29 (all); Wood Lane (NOT INCLUDED); Marion Grove 1 to 12 (all); Montalt Road 15 to 93 (odd); 64 to 82 (even); Henrys Avenue 1 to 51 (odd); 2 to 42 (even); The Charter Road 2 to 84 (even); 11 to 55 (odd); Tamworth Avenue 1 to 9 (all); Nesta Road 1 to 41 (odd); 4 to 26 (even); Crealock Grove 1 to 19 (odd); 2 to 28 (even)</td>
<td>SC</td>
</tr>
</tbody>
</table>
The choice of tree species will need to take into consideration local conditions including the space available, soil type, street character, presence of services etc. The following list provides a selection of species that may be suitable for planting in the borough subject to appropriate conditions. It is recommended that the advice of an arboriculturist or landscape architect is obtained prior to selection and planting of new trees.

### Street trees

<table>
<thead>
<tr>
<th>Latin name</th>
<th>Common name</th>
<th>Height at maturity (m)</th>
<th>Minimum space required (radius m)</th>
<th>Comment</th>
</tr>
</thead>
</table>
| Acer campestre 'Queen Elizabeth' | Field Maple | 10-15 | 3-4 | Autumn colour
| | | | | No berries |
| Amelanchier arborea 'Robin Hill' | Serviceberry | 5-10 | 2-3 | Autumn colour |
| Betula ermanii | Erman Birch | 15-20 | 3-4 | Autumn colour
| | | | | Bark interest |
| Betula pubescens | Downy Birch | 15-20 | 3-4 | Proven in the borough |
| Betula utilis | Himalayan Birch | 15-20 | 4-5 | Autumn colour
| | | | | Bark interest |
| Betula pendula "fastigiata" | Fastigate Birch | 15-20 | 3-4 | |
| Carpinus betulus | Hornbeam | 15-20 | 5-6 | |
| Cercis canadensis | North American "Redbud" | 5-6 | 2-3 | |
| Cercis siliquastrum | Judas tree | 5-6 | 2-3 | |
| Corylus colurna | Turkish Hazel | 20+ | 4-5 | Autumn Colour
| | | | | Primidal habit |
| Crataegus laevigata 'Paul's Scarlet' | Midland Thorn | 5-10 | 2-3 | Profuse flowering
| | | | | Small fruits |
| Crataegus x lavallei | Hybrid Cockspur Thorn | 5-10 | 2-3 | Autumn colour |
| Crataegus x prunifolia | Broad-leaved Cockspur Thorn | 5-10 | 2-3 | Autumn colour
| | | | | Pollution tolerant |
| Fraxinus excelsior 'Altena' | Ash | 15-20 | 5-6 | Tolerates exposure amd pollution |
| Fraxinus ornus | Flowering Ash | 10-15 | 3-4 | Late spring flowering
| | | | | Autumn colour |
| Ginkgo biloba | Maidenhair tree (male clone) | 15-20 | 3-4 | Autumn colour
| | | | | Pollution and reflected heat tolerant |
| Ginkgo biloba 'Nanum' | Dwarf Maidenhair tree | 4-6 | 2-3 | Autumn colour
<p>| | | | | Pollution and reflected heat tolerant |
| Ligustrum japonicum | Japanese Tree Privet | 5-7 | 2-3 | Suitable for shrinkable clay near buildings |
| Ligustrum lucidum | Chinese Privet | 5-7 | 2-3 | Semi-evergreen |
| Liquidambar styraciflua | Sweet Gum | 20+ | 4-5 | Autumn colour |</p>
<table>
<thead>
<tr>
<th>Latin name</th>
<th>Common name</th>
<th>Height at maturity (m)</th>
<th>Minimum space required (radius m)</th>
<th>Additional notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Metasequoia glyptostroboides</td>
<td>Dawn redwood</td>
<td>20+</td>
<td>3-4</td>
<td>Autumn Colour</td>
</tr>
<tr>
<td>Platanus × hispanic</td>
<td>London Plane</td>
<td>20+</td>
<td>5-6</td>
<td>Pollution tolerant</td>
</tr>
<tr>
<td>Platanus orientalis 'Digitata'</td>
<td>Chennar Tree</td>
<td>20+</td>
<td>5-6</td>
<td>Pollution tolerant</td>
</tr>
<tr>
<td>Prunus accolade</td>
<td>Flowering Cherry</td>
<td>5-10</td>
<td>2-3</td>
<td>Spring Flowering</td>
</tr>
<tr>
<td>Prunus incisa 'Louisa Leo'</td>
<td>Flowering Cherry</td>
<td>5-10</td>
<td>2-3</td>
<td>Spring Flowering</td>
</tr>
<tr>
<td>Prunus umineko</td>
<td>Flowering Cherry</td>
<td>5-10</td>
<td>2-3</td>
<td>Spring Flowering</td>
</tr>
<tr>
<td>Pyrus calleryana 'Chanticleer'</td>
<td>Ornamental Pear</td>
<td>10-15</td>
<td>3-4</td>
<td>Spring Flowering/Autumn colour</td>
</tr>
<tr>
<td>Quercus robur</td>
<td>Common Oak</td>
<td>15-20</td>
<td>5-6</td>
<td>High water demand</td>
</tr>
<tr>
<td>Sorbus aria 'Lutescens'</td>
<td>Whitebeam</td>
<td>7-10</td>
<td>2-3</td>
<td>Small berries in Autumn</td>
</tr>
<tr>
<td>Sorbus aucuparia 'Sheerwater Seedling'</td>
<td>Mountain Ash</td>
<td>10-15</td>
<td>2-3</td>
<td>Bird friendly berries in Autumn</td>
</tr>
<tr>
<td>Sorbus × thuringiaca Fastigiata</td>
<td>Hybrid Sorbus</td>
<td>7-10</td>
<td>2-3</td>
<td>Autumn colour</td>
</tr>
<tr>
<td>Tilia tormentosa</td>
<td>Silver Lime</td>
<td>20+</td>
<td>5-6</td>
<td>Aphid resistant</td>
</tr>
</tbody>
</table>

**Trees for small confined areas**

<table>
<thead>
<tr>
<th>Latin name</th>
<th>Common name</th>
<th>Height at maturity (m)</th>
<th>Minimum space required (radius m)</th>
<th>Additional notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amelanchier arborea 'Robin Hill'</td>
<td>Serviceberry</td>
<td>5-10</td>
<td>2-3</td>
<td></td>
</tr>
<tr>
<td>Crataegus laevigata 'Paul's Scarlet'</td>
<td>Midland Thorn</td>
<td>5-10</td>
<td>2-3</td>
<td></td>
</tr>
<tr>
<td>Crataegus × lavalleei</td>
<td>Hybrid Cockspur Thorn</td>
<td>5-10</td>
<td>2-3</td>
<td></td>
</tr>
<tr>
<td>Crataegus × prunifolia</td>
<td>Broad-leaved Cockspur Thorn</td>
<td>5-10</td>
<td>2-3</td>
<td></td>
</tr>
<tr>
<td>Ginko biloba 'Nanum'</td>
<td>Dwarf Maidenhair tree</td>
<td>4-6</td>
<td>2-3</td>
<td></td>
</tr>
<tr>
<td>Ligustrum japonicum</td>
<td>Japanese Tree Privet</td>
<td>5-7</td>
<td>2-3</td>
<td></td>
</tr>
<tr>
<td>Ligustrum lucidum</td>
<td>Chinese Privet</td>
<td>5-7</td>
<td>2-3</td>
<td></td>
</tr>
<tr>
<td>Prunus incisa 'Louisa Leo'</td>
<td>Flowering Cherry</td>
<td>5-10</td>
<td>2-3</td>
<td></td>
</tr>
<tr>
<td>Prunus umineko</td>
<td>Flowering Cherry</td>
<td>5-10</td>
<td>2-3</td>
<td></td>
</tr>
<tr>
<td>Sorbus aria 'Lutescens'</td>
<td>Whitebeam</td>
<td>7-10</td>
<td>2-3</td>
<td></td>
</tr>
<tr>
<td>Sorbus aucuparia 'Sheerwater Seedling'</td>
<td>Mountain Ash</td>
<td>10-15</td>
<td>2-3</td>
<td></td>
</tr>
<tr>
<td>Sorbus × thuringiaca Fastigiata</td>
<td>Hybrid Sorbus</td>
<td>7-10</td>
<td>2-3</td>
<td></td>
</tr>
</tbody>
</table>
### Native and other trees suitable for parks and open spaces

<table>
<thead>
<tr>
<th>Tree Name</th>
<th>Common Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carpinus betulus</td>
<td>Hornbeam</td>
</tr>
<tr>
<td>Quercus robur</td>
<td>Common Oak</td>
</tr>
<tr>
<td>Fagus sylvatica</td>
<td>Beech</td>
</tr>
<tr>
<td>Aesculus hippocastanum*</td>
<td>Horse Chestnut</td>
</tr>
<tr>
<td>Castania sativa*</td>
<td>Sweet Chestnut</td>
</tr>
<tr>
<td>Acer platanoides*</td>
<td>Norway Maple</td>
</tr>
<tr>
<td>Prunus cerasifera*</td>
<td>Cherry Plum</td>
</tr>
<tr>
<td>Sorbus aucuparia</td>
<td>Rowan</td>
</tr>
<tr>
<td>Crataegus monogyna</td>
<td>Hawthorn</td>
</tr>
<tr>
<td>Acer campestre</td>
<td>Field Maple</td>
</tr>
<tr>
<td>Tilia cordata</td>
<td>Small-leaved Lime</td>
</tr>
<tr>
<td>Tilia platyphyllos</td>
<td>Large-leaved Lime</td>
</tr>
<tr>
<td>Corylus avellana</td>
<td>Hazel</td>
</tr>
<tr>
<td>Prunus padus</td>
<td>Bird Cherry</td>
</tr>
<tr>
<td>Prunus avium</td>
<td>Wild Cherry</td>
</tr>
<tr>
<td>Ilex aquifolium</td>
<td>Holly</td>
</tr>
</tbody>
</table>

Species marked * indicate an introduced species of tree or shrub, others are native.

### Small native and other trees suitable for gardens

<table>
<thead>
<tr>
<th>Tree Name</th>
<th>Common Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sorbus aucuparia</td>
<td>Rowan</td>
</tr>
<tr>
<td>Ilex aquifolium</td>
<td>Holly</td>
</tr>
<tr>
<td>Prunus cerasifera*</td>
<td>Cherry Plum</td>
</tr>
<tr>
<td>Corylus avellana</td>
<td>Hazel</td>
</tr>
<tr>
<td>Betula pendula 'Youngii'*</td>
<td>Dwarf weeping Birch</td>
</tr>
<tr>
<td>Crataegus monogyna</td>
<td>Hawthorn</td>
</tr>
</tbody>
</table>

Species marked * indicate an introduced species of tree or shrub, others are native.
## Appendix D - Submission of Evidence form from the Joint Mitigation Protocol

<table>
<thead>
<tr>
<th>Date of Submission</th>
<th>Interim</th>
<th>Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Statutory Authority</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Property Owner</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Damage Address</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Area of Damage</td>
<td></td>
<td>Category per BRE 251</td>
</tr>
<tr>
<td>Site Plan</td>
<td></td>
<td></td>
</tr>
<tr>
<td>To include all relevant vegetation and significant drain layout. Plan to indicate position of rooms</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Photographs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>These are indicative and are not a complete record of the full extent of the damage</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Arboricultural report</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Details of Statutory Authority Third Party Vegetation</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Details of Policyholder Vegetation</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Details of Other Third Party Vegetation</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Root Analysis</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Foundation depth</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Subsoil</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Factors indicating clay shrinkage</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Date damage discovered</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Monitoring Drains</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Estimated cost of repairs</td>
<td>Protocol Mitigation</td>
<td>Delayed / Rejected Mitigation</td>
</tr>
<tr>
<td>Investigation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Substructure</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Superstructure</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alt Accn</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fees &amp; Expenses</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mitigation Request</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Comments (use this box to add further engineering comments if required or advise if engineering report attached)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Appendix E - The value of trees for insects

The table below lists the number of insect species associated with common trees and shrubs. Species marked * indicate an introduced species of tree or shrub, others are native.

<table>
<thead>
<tr>
<th>Tree or shrub</th>
<th>Number of insect species</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oak, pedunculate and sessile</td>
<td>284</td>
</tr>
<tr>
<td>Willow spp.</td>
<td>266</td>
</tr>
<tr>
<td>Birch</td>
<td>229</td>
</tr>
<tr>
<td>Hawthorn</td>
<td>149</td>
</tr>
<tr>
<td>Blackthorn</td>
<td>109</td>
</tr>
<tr>
<td>Poplar spp. (incl. Aspen)</td>
<td>97</td>
</tr>
<tr>
<td>Crab apple</td>
<td>93</td>
</tr>
<tr>
<td>Pine, scots</td>
<td>91</td>
</tr>
<tr>
<td>Alder</td>
<td>90</td>
</tr>
<tr>
<td>Elm</td>
<td>82</td>
</tr>
<tr>
<td>Hazel</td>
<td>73</td>
</tr>
<tr>
<td>Beech</td>
<td>64</td>
</tr>
<tr>
<td>Ash</td>
<td>41</td>
</tr>
<tr>
<td>*Spruce</td>
<td>37</td>
</tr>
<tr>
<td>Lime</td>
<td>31</td>
</tr>
<tr>
<td>Hornbeam</td>
<td>28</td>
</tr>
<tr>
<td>Rowan</td>
<td>28</td>
</tr>
<tr>
<td>Maple</td>
<td>26</td>
</tr>
<tr>
<td>Juniper</td>
<td>20</td>
</tr>
<tr>
<td>*Larch</td>
<td>17</td>
</tr>
<tr>
<td>*Fir</td>
<td>16</td>
</tr>
<tr>
<td>*Sycamore</td>
<td>15</td>
</tr>
<tr>
<td>Holly</td>
<td>7</td>
</tr>
<tr>
<td>*Chestnut, sweet</td>
<td>5</td>
</tr>
<tr>
<td>*Chestnut, horse</td>
<td>4</td>
</tr>
<tr>
<td>Yew</td>
<td>4</td>
</tr>
<tr>
<td>*Walnut</td>
<td>4</td>
</tr>
<tr>
<td>*Oak, holm</td>
<td>2</td>
</tr>
<tr>
<td>*Plane</td>
<td>1</td>
</tr>
</tbody>
</table>
Appendix F - Core Strategy and Development Management DPD policy recommendations in relation to trees

1.1 The saved policy ENV22 from the Waltham Forest Unitary Development Plan (First Review 2006) is the current adopted planning policy for trees in the Borough. The policy states that in order to protect and improve the amenity and biodiversity value of trees, the London Borough of Waltham Forest will:

a) where appropriate, make tree preservation orders on trees or groups of trees;

b) aim to ensure that other trees of lesser public amenity value and those of value to nature conservation are retained wherever possible;

c) ensure that, whenever appropriate, in granting planning permission for any development, adequate provision is made for the protection of existing trees and the planting of new trees which should be of locally indigenous species wherever possible;

d) encourage other public authorities and private landowners to implement new tree planting which should be of locally native species wherever possible;

e) encourage proper beneficial management of woodland areas;

f) seek the use of planning obligations with developers to plant appropriate species of trees wherever services allow, in public streets and where appropriate, in open spaces.

1.2 The Local Development Framework will provide a spatial interpretation of ‘Our Place in London – the Sustainable Community Strategy for Waltham Forest’. When it is adopted the Local Development Framework will replace the saved policies within the Unitary Development Plan. The Waltham Forest Core Strategy preferred options consultation ended on the 19th February 2010 and the comments received have informed the submission document for public examination. The Core Strategy includes policy CS6 – Green Infrastructure and Biodiversity – which covers the strategic policy need for trees. The Development Management policies – DM13, DM35 and DM36 – go into greater detail. The Council will be consulting on the proposed submission for six weeks starting on 17th January 2011. Policy CS15 aims to transform the design and quality of public space and recognises the local distinctiveness and spatial context within the neighbourhoods of Chingford, Walthamstow, Leyton and Leytonstone and the unique characteristics they present defined by a combination of common elements, including street trees. The policy within the Tree Strategy for the maintenance, management and planting of trees will support the delivery of Policy CS15.

1.3 The Development Management policies document includes more detailed policy to protect and enhance biodiversity, local distinctiveness, new development and the historic environment. Issues and Options consultation on this closed on the 30th April 2010 and the Preferred Options consultation will commence on 17th January 2011. As part of this consultation, it will be recommended that the Development Management policy should include, or continue to include, detailed guidance for developers on:

- Retaining existing trees wherever possible
- Planting new trees
- Measures for mitigation when trees on vehicle crossovers are removed in exceptional circumstances
- The provision of trees in open space within development proposals
- Street tree planting, particularly in large residential schemes
- Replacing trees which are felled, including appropriate replacement species and planting principles
- Tree Preservation Orders and Conservation Areas

1.4 It is also recommended that, in the longer-term, a Supplementary Planning Document on ‘Trees and Development Sites’ is prepared to provide detailed guidance to developers on trees in relation to:

a) The development process
   The British Standards Institute British Standard 5837: 2005 Trees in Relation to construction
   Pre-application process
   Planning application process
   Determination of planning applications
   Implementation of planning permission and monitoring

b) Survey and application process
   Site surveys
   Tree survey
   Tree constraints plan
   Tree protection plan
   Arboricultural method statement
   Arboricultural implications assessment
   Protection of trees during construction
   Management of trees during construction
   New planting proposals
   Street tree planting
produced for the London Borough of Waltham Forest by

the landscape partnership