DRAFT

APPENDIX B

# Peterborough

# Tree and Woodland Strategy



PETERBOROUGH CITY COUNCIL

# THIRD DRAFT

**Preface**

**How to make comments on this Strategy**

This is a consultation draft version of a proposed Tree and Woodland Strategy. The Council has an adopted Strategy of 2012, but we think now is the time to update and refresh it. Before we do, we are seeking your views as to whether this consultation draft is a suitable Strategy. The consultation starts at XXXXX on XXXX XXXXXXXXX 2018 and closes at XXXXX pm on XXXX XXXXXXX 2018.

The Strategy can be viewed at www.peterborough.gov.uk/LocalPlan.There are several ways that you can comment on the Strategy. Comments can be made by email to::

planningpolicy@peterborough.gov.uk

or by post to:

Peterborough Tree and Woodland Strategy Consultation
Sustainable Growth Strategy
Peterborough City Council
Town Hall
Bridge Street
Peterborough
PE1 12HF

All responses must be received by **XXXX pm** on **XXXXXXXX 2018**.

Please note that all comments will be uploaded to our online consultation portal and will not be confidential.

All comments received will be taken into consideration by the council before a final Strategy is approved later in 2018.

# THIRD DRAFT

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**Appendices**

## 1. Introduction

1.1 This new strategy will aim to build on the achievements and progress made during the life of the 2012 document. However, many of the old policies will remain unchanged. The City's trees and woodlands have the capacity to both improve the quality of life for Peterborough residents and make a significant contribution towards the Council's environmental targets and aspirations.

1.2 The new strategy will seek to consolidate the Council owned tree stocks and woodland and manage them in a sustainable way. This particularly applies to the extensive legacy woodlands planted by the Peterborough Development Corporation (PDC) in the 1970's. The strategy seeks to make the woodlands more resilient in the face of threats from introduced pests and diseases and the impact of climate change.

1.3 A key aim will be to increase tree canopy cover in the City by both planting new trees and ensuring proper development of newly established trees to maximise the benefits they can provide. Also to support and contribute to the Forest of Peterborough Project target to plant 183,000 trees in and around the city and surrounding countryside by 2030. The extension of canopy cover will focus on the urban areas and try to redress the balance between Wards with low numbers of trees and those with extensive tree and woodland cover. However, tree and woodland planting will be encouraged throughout the whole of the unitary area.

1.4 The strategy seeks to strike a balance between maximising benefits provided by trees and recognising that trees can cause significant problems for home owners when in close proximity to dwellings and gardens. Where possible, long term solutions will be applied to reduce the level of conflict between trees and residents.

1.5 The preservation and improvement of wildlife habitats and the conservation value of the City's trees and woodlands is at the heart of the strategy. The strategy will mesh with both National policies and the Council's Ecological and Green Space Plans.

## 2. Background

2.1 The Unitary Peterborough extends to 34,000 ha. The current (2016) population is approximately 200,000 which is expected to increase by a further 41,500 between 2016 and 2036.

2.2 The City is set in eastern England, where the Fens meet the lowlands of the Midlands. This junction of landscapes provides a rich and diverse range of contrasting and distinctive landscapes including fenlands, clay lands, river valleys, gravels and limestone.

2.3 The eastern half of the unitary area is reclaimed high quality agricultural land on the flat fens. Originally the margins would have consisted of wet woods and carrs of alder, birch, ash and oak, edging onto vast tracts of brackish marsh, river plains and reeds.

2.4 To the west of the City the land becomes more undulating and forms the eastern extent of the Rockingham Forest character area. There are numerous ancient woodlands in this area, many of which are of high nature-conservation interest and are attractive landscape features in their

own right. Fields and roads are bounded by trees and hedgerows which link a patchwork of woods. These woods, the remnants of the Rockingham Forest, survive in western Peterborough.

2.5 Early settlements such as those found at Flag Fen and Barnack led to the clearance of the forest. Later as sea levels dropped, and man drained the Fens, so his impact on the tree cover of the area became even greater.

2.6 There has been continuous settlement at Peterborough since 45 AD. Early settlement was based around the great abbey of St Peter. The City grew beyond its medieval boundaries during the nineteenth century and the City's industrial heritage evolved with the great rail workshops. At the same time the brick industry, so closely linked to the City until the 1980's, was developing. The older parts of the City, which accommodated the industrial growth of Peterborough from Victorian times to the 1950s, have a structured layout with tree lined roads, formal promenading parks and open spaces.

2.7 In 1967 Peterborough was designated as a New Town and during the 1970s and 1980s the population increased significantly with three new townships constructed around the core of the old city. The PDC ceased to exist in 1988. However, the process of housing growth and township creation continues with the latest development; the privately funded Hamptons, built on former brickfields to the south of the City.

2.8 The PDC undertook extensive tree planting throughout the new townships using a naturalistic planting scheme including woodland belts tree groups and individual tree planting in close association with residential and commercial development. This planting style was partially influenced by the garden city concept. The main road network, created as part of the new town construction, was edged by tree belts, the main design influence here was the American parkway movement. Many of the roadside tree belts are also in close proximity to residential properties. The PDC tree and woodland planting is now coming to maturity providing a valuable legacy for today's residents of the City but is in need of ongoing management and renewal.

## 3. Aims of the Strategy

3.1 Sustainability is at the heart of the Council's long term aims and is encapsulated in the Environment Action Plan. This tree and woodland strategy seeks to provide:

***"A sustainable tree and woodland resource for a growing city"***

3.2 The strategy sets out how the benefits provided by trees and woodland will be maintained and enhanced. This will include positive steps to consolidate tree stocks and address some of the recurring problems associated with the Council's trees.

3.3 The primary aims are summarised as follows:

- **To maintain and enhance the tree population of the City.**
- **To increase the tree canopy cover across the City with particular reference to areas with low canopy cover.**
- **To protect, consolidate and, where necessary, restructure the legacy of trees and woodland established by the PDC.**
- **To maintain and maximise the ecosystem services provided by the Council's trees.**
- **To ensure, as far possible, that the Council's tree stocks are resilient in the light of threats from introduced tree pests and diseases and climate change.**
- **To promote biodiversity and conserve tree and woodland eco-systems.**
- **To conserve and protect ancient woodland and ancient trees with significant ecological, historical and amenity value.**
- **To work with partners to expand the woodland cover through sustainable external funding.**
- **To fulfil the Council's duty of care in respect of its tree stocks. The systems of health and safety checks on trees that have been developed will be maintained. The aim will be to keep risks presented by trees as low as it is reasonably practical to do so.**

3.4 This document highlights the importance of the tree resource under the stewardship of the Council and sets a standard for its management, which ensures its long term conservation and development for the benefit of the people of Peterborough and future generations.

3.5 Many of the issues affecting tree and woodlands have strong links with other Council initiatives in urban design and land use. Tree and Woodland protection and care is concerned with managing the risks and benefits to ensure the best and most sustainable outcome.

3.6 The Council will act to conserve and enhance the quality, value, role and diversity of the trees and woodlands in the City. The focus will be on consolidation and, where necessary, rationalisation.

3.7 The Council will respond to the concerns and actions of residents. However, the removal of trees shall be resisted and, when it is necessary to do so, replacement planting will be required.

3.8 The Council are a lead partner in the Forest for Peterborough project led by Peterborough Environment City Trust (PECT), The projects target is to plant 183, 000 trees by the year 2030. Since the project started in 2010 a total of 93,600 native trees have been planted. Over the remaining 13 years of this project the Council will continue to review its land management practices and, where possible, provide areas for new trees and woodlands to be planted.

## 4. Achievements since the Last Strategy was Produced in 2012

4.1 There has been considerable progress since the last tree and woodland strategy was produced.

4.2 Management of the Council's tree stocks was contracted out in 2013, as part of a 23 year infrastructure support service contract currently managed by Amey plc.

4.3 The focus of the work during the period has been the completion of extensive tree surveys to, as far as is reasonably practicable, reduce the risk of tree failures. A Tree Risk Management Plan was produced in 2012 setting out the procedures to be followed to fulfil the Council's duty of care. As a result of the adoption of the Tree Risk Management Plan proprietary tree management software was installed. Approximately 50,000 street trees have now been surveyed and logged into the tree database. This will greatly facilitate the day to day and future management of the Council's tree stocks and has led to management of tree stocks becoming pro-active rather than reactive.

4.4 A canopy cover survey was commissioned in 2014 which gives the percentage canopy cover over the City by Ward. Canopy cover is defined as the area occupied by the crowns of the trees as a percentage of the land area. The figure is used to assess the tree cover of the City and also allows comparison with other urban areas in the UK and across the world.

4.5 The legacy woodlands planted by PDC are extensive and extend to 280 ha. These have all had basic level health and safety surveys around the woodland edges and footpaths which included noting details of the woodland composition. Any trees presenting a risk of failure or highway obstructions have been dealt with by either remedial tree work or removal.

4.6 The Bretton Woodlands, including Grimshaw Wood, Pocock's Wood and Highlees Spinney are the only Ancient woodlands in the Council ownership. In 2013 after consultation with stakeholders a Management Plan for the woods was produced to ensure their long term sustainability. The plan took full account of the importance of the sites for heritage, wildlife, recreation and impact on the local landscape. Aided by a Heritage Lottery Fund grant and EWGS grant from the Forestry Commission the Peterborough Environmental City Trust restored coppice working to some of the areas of the woods providing opportunities for community involvement in traditional woodland crafts. New access paths and pedestrian bridges were constructed in Grimshaw and Pocock's wood and some non-native invasive species removed.

4.7 Some management work has been completed in the woodland belts including thinning, and removal of edge trees causing a nuisance. This was completed on a trial basis to gauge the response of residents. The trial in Werrington was completed with a largely positive reaction from local residents.

4.8 All this represents a considerable improvement to the position at the beginning of the last plan. However, now the systems are in place, a similar effort and focus is now needed to secure the Council's tree stock for the future.

## 5. Other Council Policies which Impact on the Tree and Woodland Strategy

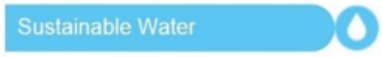
### The Environmental Action Plan

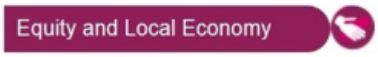
5.1.1 In 2017 PCC adopted an updated an Environment Action Plan (EAP) the key elements of which are shown in Table 1. The EAP sets out the Council's overarching strategy to make the city fully sustainable by 2050. The aim is to achieve 'One Planet Living' (at present we use the resources of three planets. One planet living would reduce this to utilising our planets resources in a fully sustainable way).

5.1.2 Trees and woodland feature directly in selected aims of the EAP, however, the urban forest has the potential to provide a significant contribution to the broad range of Council's targets.

5.1.3 Trees are the largest and oldest living organisms in our environment. Trees and woodlands are dominant features of the landscape and environment of Peterborough. Collectively they form one of its finest and most important features. However, they are not simply embellishments, but provide a range of important ecosystem services and contribute towards the sustainable future of the City. The following examples illustrate the importance of some of the ecosystem services provided and how trees can help to deliver its EAP targets.

**Table 1 – The Contribution of the City's Urban Forest to EAP Targets**

| EAP Aims | The Ways in which Trees and Woodland Contribute to a Sustainable Future for Peterborough through the broad range of ecosystem services provided |
|---|---|
|  | • Carbon is stored and locked in timber.<br>• Around 6% of the carbon emissions of the City are sequestered by trees each year.<br>• Fuel wood produced from sustainable woodland management is a source of carbon neutral fuel.<br>• Help alleviate the effects of climate change |
|  | • Trees reduce surface water runoff and help prevent flooding. All parts of the City are susceptible to flooding due to surface water runoff (Environment Agency, 2016). Additional tree planting particularly in conjunction with Sustainable Urban Drainage Schemes (SUDS) has the potential to intercept and slow down runoff reducing damage caused.<br>• Trees in catchment areas delay and reduce run off into water courses.<br>• Trees are important components of sustainable drainage schemes.<br>• Trees help to improve the quality of polluted sites.<br>• Help to reduce the impact of climate change. |
|  | • Providing a range of wildlife habitats.<br>• Ancient trees and ancient woodlands provide habitat for many rare species.<br>• Woods provide wildlife corridors throughout the City.<br>• Provide landscape benefits |
|  | • Timber produced in the city's urban forest is sustainably managed.<br>• All timber products used in tree and woodland management will be from Forestry Stewardship Council (FSC) registered sources. |

| | |
|---|---|
|  | • Fruit trees and orchards throughout the city produce locally sourced food.<br>• Old orchards provide important wildlife habitats. |
|  | • Waste from tree works is recycled for fuel wood or composted for mulch.<br>• Re-cycled green waste can be used for mulching of trees and shrubs and surfacing informal footpaths within the woods. |
|  | • Paths through woodland and greenspace provide for safe walking and cycling routes across the city.<br>• Road edge tree belts screen traffic, lower noise levels.<br>• Trees trap atmospheric pollutants and particulates created by traffic. |
|  | • Trees and woods provide an educational resource.<br>• Provide a link with past lives and landscapes<br>• Woods preserve archeological remains and features. |
|  | • Provides local jobs.<br>• A recreational resource open to all.<br>• Provides opportunities for community involvement.<br>• The proximity of trees and woodland can increase property values. |
|  | • Provides Recreational opportunities.<br>• the UK it has been estimated only one third of the ıpulation does the recommended level of exercise. The estimated cost Ill health due to obesity is £1 billion per year. The City's woodlands encourages outdoor recreation and a healthy life style<br>• Air pollution from vehicles and industrial processes produces minute particles known as particulate matter as well as gasses such as ozone, nitrogen dioxide and sulphur dioxide. These present a risk to health, it has been estimated around 30,000 deaths in the UK are attributable to air pollution. Trees trap particulates on the leaves and take in gasses through the pores lowering the risk to health.<br>• Gives a feeling of wellbeing and relieves stress.<br>• Reduce air temperatures and provide shading.<br>• Produces improvements in both physical and mental health. |

**Peterborough Local Plan 2016 to 2036**

5.1.4 This plan is being revised to reflect latent housing, job and infrastructure needs, as well as latest National Policy. It is also strongly aligned with the EAP aims. It includes; polices designed to extend open space and green infrastructure (LP22), maintain green wedges between areas of development (LP26) and protect ancient woodland and ancient trees from development. (LP28).

The plan refers to the tree and woodland strategy on questions of tree management hence the need to revise this document to give clear and up to date guidance.

5.1.5 When considering planning applications, the Council will ensure that suitable trees are retained on development sites and that they are properly protected during the construction phase. Any tree losses will need to be replaced with new planting.

5.1.6 This revised strategy has been prepared with due consideration to current international, regional and corporate policies, and to provide a structure for compliance with the Council's legal responsibilities. The strategy will contribute to the delivery of the broad range of Council aims, objectives and priorities on the environment, communities, health, and land use planning.

5.1.7 The structure of this strategy is to ensure that key Council and National policies are considered and are at the core of the policies and priorities herein. This document will contribute to delivering the broad range of Council aims in conjunction with priorities on community and land use planning issues. In addition, the strategy also takes account of the latest Government Forestry and Woodlands Policy Statement issued by DEFRA in January 2013 and the UK Forestry Standard.

5.1.8 In recognition of the change that population growth will mean to communities and infrastructure, we need to ensure that stability and social cohesion continue and that growth will lead to a cleaner and greener city. The urban forest has an important role in this process.

**The Biodiversity, Green Infrastructure and Open Space Strategies**

5.1.9 These documents provide a strategic plan to deliver a network of high quality green spaces. They set out to ensure green space will be designed and managed as a multi-functional resource, delivering a wide range of environmental and quality of life benefits. Trees and woodlands are a very important part of this and play a vital role in defining Peterborough as an Environment City.

5.1.10 Woodlands, especially old trees and ancient woodlands, are amongst our richest habitats. The highest levels of biodiversity are often found in woodlands that are actively and sensitively managed. Their diversity is even greater when they form part of a mixed landscape in close proximity to other features such as ponds, grasslands and even residential gardens. Hedgerows linking woodlands act as wildlife corridors and so greatly promote the extent and range of wildlife. In order to protect this ecological asset an evaluation will be given to the sensitivity of the species and habitats identified to ensure public access remains appropriate, without harming the biodiversity interest.

5.1.11 The challenge in the future will be to maintain and enhance diversity. Planning and management needs to be aimed at providing a natural environment which is resilient to climate change. Climate change will impact on the range of native wild plants and animals and hence the character of our woods.

5.1.12 The presence of some invasive non-native species such as Japanese knotweed (*Fallopia japonica*) will need to be addressed.

5.1.13 Woodlands protect ground water from pollution and lessen the likelihood of flooding by intercepting rain before it reaches watercourses. Strategically planted shelterbelts intercept air pollutants. To realise integrated and multifunctional landscape management the Council will work closely with external partners and a variety of landowners.

5.1.14 The Trees and Woodland Strategy is mutually compatible with these overlapping strategic documents and thus provides a clear direction for the management of the City's Green space and natural environment assets.

## 6. The Resource (an Analysis of the Council's Tree stocks)

6.1 As a result of the progress made in surveying and entering the Council's tree stocks on to a database, the survey work carried out in the PDC legacy woodlands and the canopy cover survey carried out in 2014, it is possible to get a good overview of the state of the Council's trees.

6.2 To draw conclusions from the data taken from the database it is necessary to separate the 280 ha of woodland planted by PDC from other tree stocks in streets and public open space which are defined as 'Specimen trees" .

### Specimen Tree Stock-Age

6.3 In certain circumstances some species of tree can live to 200 to 300 years and beyond. However in dynamic urban conditions with poor soils and growing conditions life expectancy can be considerably shorter, in some cases as low as 20 to 30 years. Figure 1 shows the age structure of trees on the data base (excluding the PDC woods).

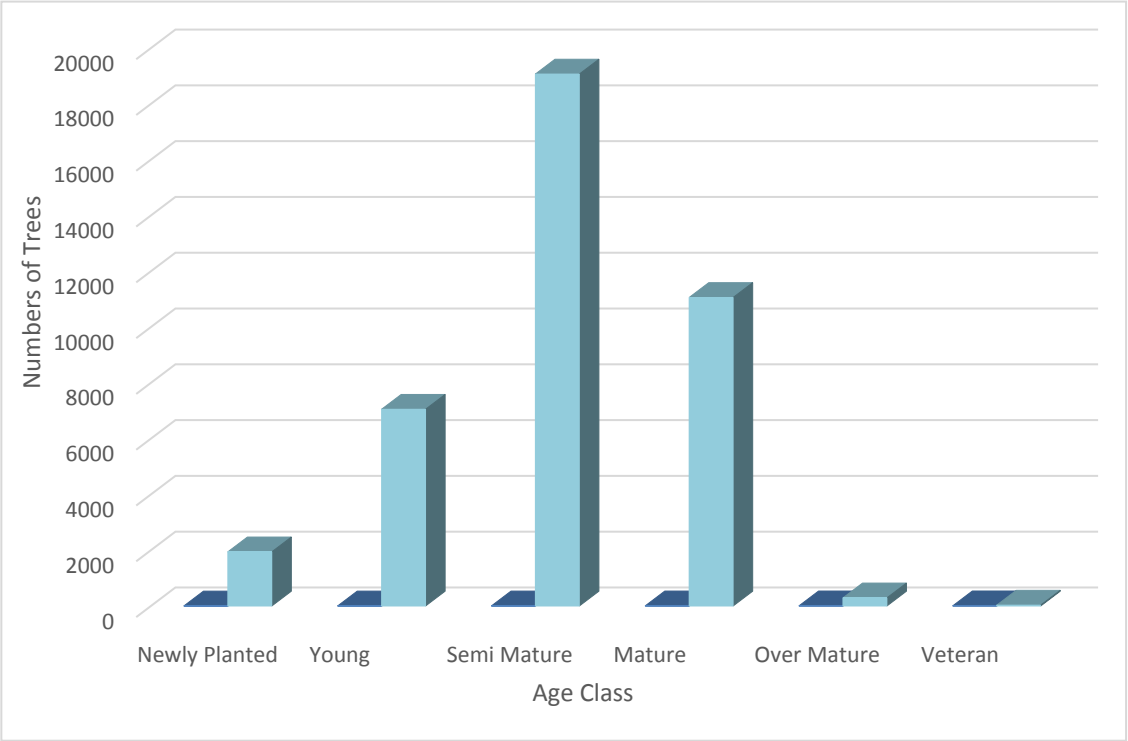



Fig 1: Bar chart showing the age distribution of the trees on City's tree data base

6.1 It can be seen from Figure 1 that the vast majority of the Council's urban trees are in the semi mature category. The semi-mature trees are defined as trees in the first third of their, expected safe, useful life and have reached the point where they will need increasing amounts of management. As the trees grow into maturity there will be increased encroachment of roots and crowns into adjoining properties and a higher incidence of tree failures and fungal infection.

6.2 It should be noted that are a very small number of over mature and veteran/ancient trees present in the City. The industrialisation of the nineteenth and twentieth centuries coupled with the sweeping landscape changes wrought by the new town development generally left few old trees. The veteran and ancient trees and woodlands that do exist are therefore of particular historic and conservation value.

**Woodland Tree-Age**

6.3 The demographics of the City's tree stocks are heavily influenced by the planting carried out by the PDC between 1970 and 1986. For example, 63% of these woods were planted in a four year period between 1975 and 1979 and are now between 40 and 50 years old. The Pie chart Figure 2 shows the age structure in the PDC woods. It can be seen that 93% of these woodlands are between 30 and 50 years old.

6.4 In the first third of their lifecycle trees in the PDC Legacy woodlands have been relatively trouble free and the trees have required minimal maintenance. However, they are growing inexorably towards neighbouring buildings and carriageways, obscuring road signs and blocking visibility splays.

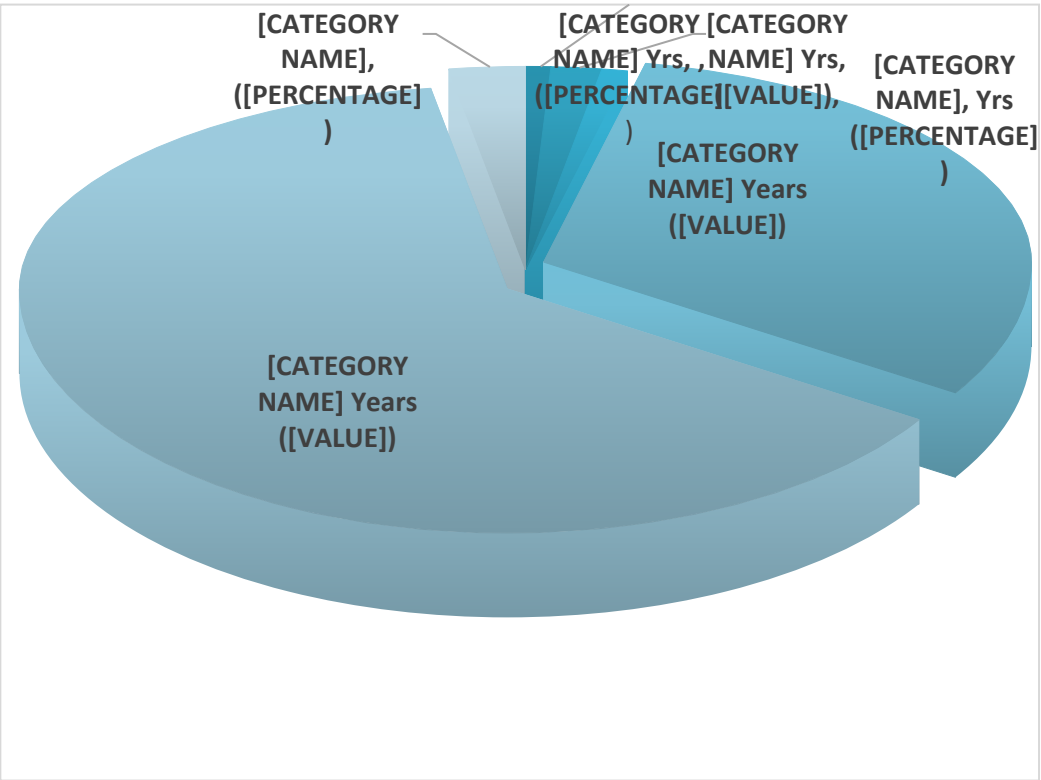



Fig 2: Pie Chart showing the age structure of the PDC Legacy woodlands

**Canopy Cover**

6.5 Peterborough's trees are not evenly distributed. The density of canopy cover in the City varies greatly, with densest tree cover in the new townships created by PDC. In 2014 a canopy cover survey was commissioned which involved analysing aerial photography and measuring the area occupied by tree crowns. This found that the average canopy cover in the City is 9.43%. However, there was a wide discrepancy between canopy cover in different Wards. For example, Bretton South, in the west, has 33.87% canopy cover compared with only 4.2% in Stanground East. The table showing the canopy cover survey by Ward forms Appendix 2 (Please note: some Ward boundaries have been changed since the survey was produced).

Fig 3: Stanground East Canopy Cover 4.2%

Fig 4: Bretton South Canopy cover 33.87%

6.6 Although the combined canopy cover, for both privately owned and council owned land is important, it was considered necessary to analyse this data for canopy cover on council owned land alone. This data, shown below show that overall the council has 26% canopy cover on land within its direct control (i.e. not leased out). The council's canopy cover forms 21% of the unitary areas total canopy cover. It can be clearly seen that many wards offer little land for further tree planting, without compromising other land uses.

**Table 2 PCC Canopy Cover (Excluding Leased Land)**

| Ward | PCC Canopy Cover Excluding Leased Land (ha) | PCC Land by Ward (ha) | % PCC Land Covered |
|---|---|---|---|
| Stanground East | 2.57 | 2.65 | 97.0 |
| Glinton and Wittering | 34.05 | 35.46 | 96.0 |
| Orton with Hampton | 36.3 | 38 | 95.5 |
| Bretton North | 68.45 | 83.2 | 82.3 |
| Bretton South | 12.88 | 18.39 | 70.0 |
| Orton Waterville | 59.13 | 84.95 | 69.6 |
| Werrington South | 19.97 | 33.69 | 59.3 |
| **Ward** | **PCC Canopy Cover Excluding Leased Land (ha)** | **PCC Land by Ward (ha)** | **% PCC Land Covered** |
| Werrington North | 35.6 | 66.26 | 53.7 |
| Park | 8.48 | 17.25 | 49.2 |
| Paston | 19.31 | 44.58 | 43.3 |
| West | 56.2 | 150.7 | 37.3 |
| North | 7.24 | 19.67 | 36.8 |
| Orton Longueville | 51.47 | 153.52 | 33.5 |
| Ravensthorpe | 21.19 | 69.98 | 30.3 |
| Walton | 6.57 | 24.73 | 26.6 |
| East | 32.62 | 142.87 | 22.8 |
| Central | 10.02 | 45.24 | 22.1 |
| Fletton & Woodston | 12.3 | 60.04 | 20.5 |
| Barnack | 15.03 | 78.61 | 19.1 |
| Dogsthorpe | 17.55 | 97.71 | 18.0 |
| Eye Thorney | 18.95 | 129.8 | 14.6 |
| Stanground Central | 9.45 | 68.62 | 13.8 |
| Northborough | 6.81 | 51.4 | 13.2 |

| | | | |
|---|---|---|---|
| Newborough | 9.72 | 103.58 | 9.4 |

### Specimen Tree Stock- Species Mix

6.7 As protection against pests and diseases and the possible impact of climate change it is important to have a wide range of tree species and plant families making up the urban forest. Again there is a marked difference in the distribution of species between the street and park trees included on the database and in the PDC legacy woodlands. The database lists 269 different species and cultivars drawn from 76 genera. No single species exceeds 8% of the total. This is a healthy mixture that should provide a useful degree of resilience. However, where there are concentrations of a single species within an area there is, obviously, a greater vulnerability. Appendix 3 gives the full species list and percentages. The top ten species from the database are shown in Table 3.

**Table 3 – Top Ten Species from the Database.**

| Species | Number of trees | % of Total | Origin |
|---|---|---|---|
| Norway maple | *3243* | 8.0% | Introduced |
| Ash | *3133* | 7.7% | Native |
| Common lime | *2566* | 6.3% | Introduced clone |
| Wild cherry | *1946* | 4.8% | Native |
| Hawthorn | *1788* | 4.4% | Native |
| London plane | *1734* | 4.3% | Hybrid Origin |
| Sycamore | *1714* | 4.2% | Introduced |
| Silver birch | *1680* | 4.2% | Native |
| Field maple | *1509* | 3.7% | Native |
| Horse chestnut | *1157* | 2.9% | Introduced |
| All other species | | 49.5 | Mixed Origin |

6.8 It can be seen that at the top of the list is Norway maple (*Acer platanoides*). This tree thrives in the City and regenerates freely often at the expense of native species. A close second is ash (*Fraxinus excelsior*) currently under threat from ash dieback (see Section 9 below).

### Woodland- species mix

6.9 The species mix in the PDC legacy woodlands is less varied. Figure 5 shows a pie chart with the estimated species mix derived from the 2013 survey of the belts. 309 sections of belt were inspected and the percentage of each tree species visually estimated. From these figures it was possible to obtain an estimate of the average species mix shown in Figure 3.

6.10 It can be seen in Figure 5 that 21% of the woodland trees are from the genus *Acer* (the maples) and 18.5% from the genus *Fraxinus* (ash). As almost 40% of the woodland tree stock comes from just two genera it is therefore considered vulnerable to pests and diseases.

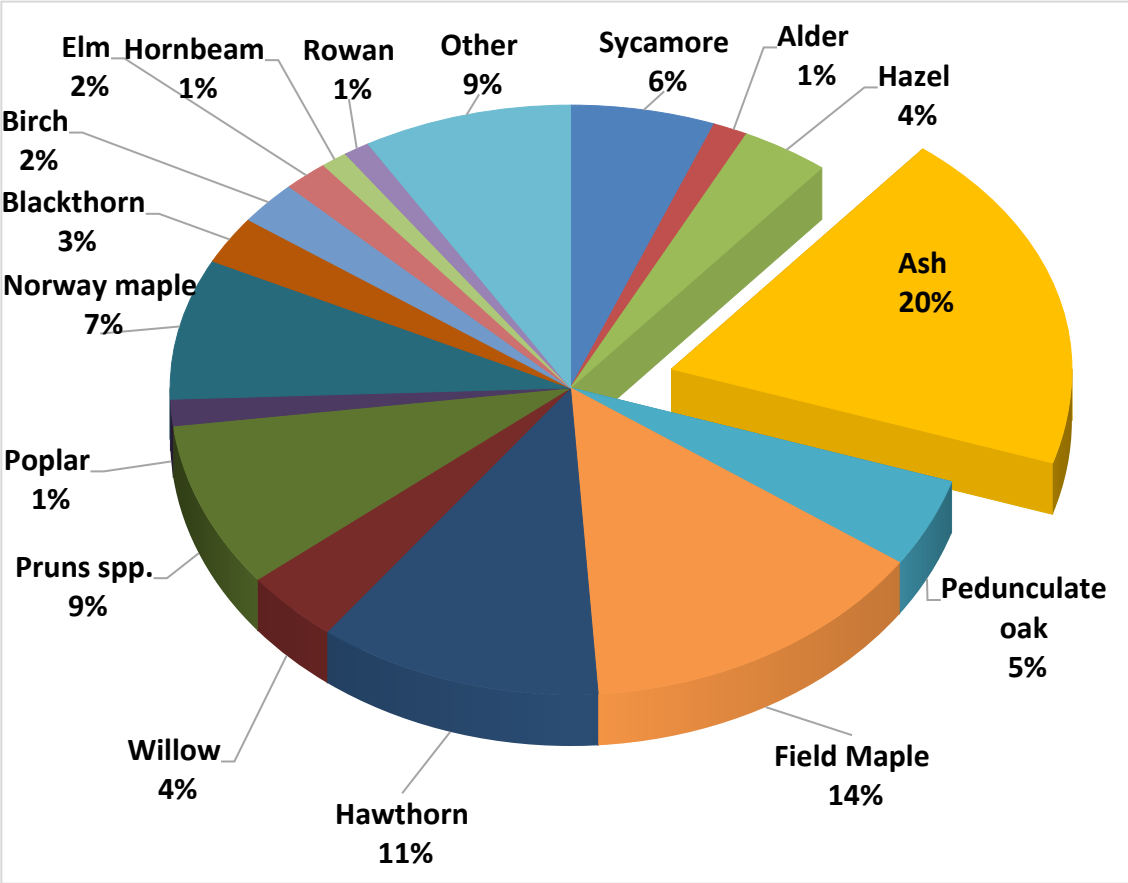



Fig 5: Estimated species mix in PDC Tree Belts - "Other" includes all species that form less than 1% of the total

6.11 With regard to ash 18.5% is the average proportion and some of the blocks sampled did not have any ash present. Of the belts that do have an ash component, it forms an average 25% of the trees present.

## 7. Problems Caused by the Council's Trees

### Analysis of tree based enquires 2016

7.1 It must be recognised that trees can be responsible for ecosystem disservices. For example they cause problems for residents where they are growing close to private property and gardens. In 2015 Amey staff dealt with 1288 enquires on behalf of the Council this increased slightly in 2016 to 1332. Figure 3 shows a bar graph of the number of enquires in 2016 by ward. It can be seen that by far the largest number of enquiries (48%) emanate from the former PDC townships.

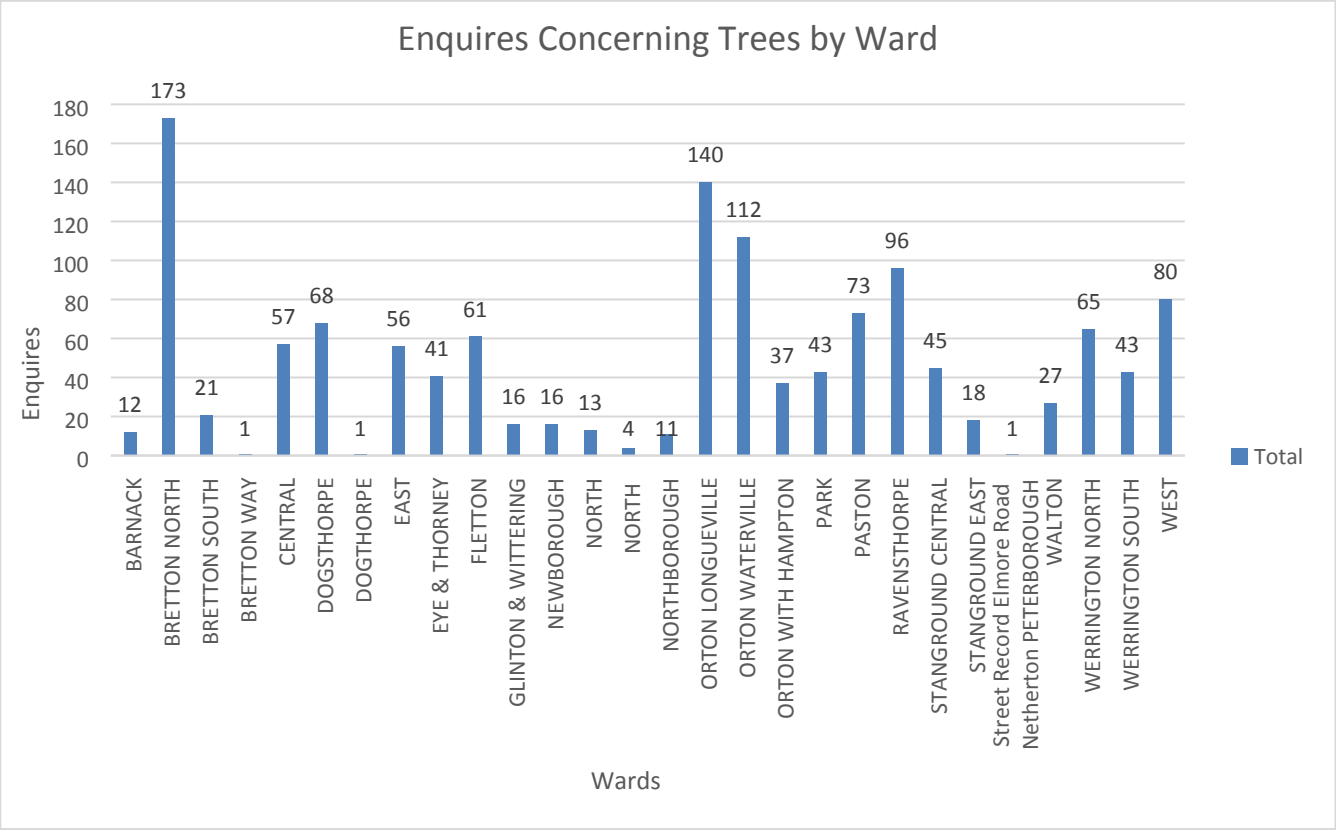



Fig 6: Tree enquiries concerning trees in 2016 by ward

7.2 The nature of the enquiries are varied; the top ten problems are listed in Table 4 below. It can be seen that by far the highest percentage of enquiries are related to overhanging and encroaching branches.

**Table 4 – Showing the Most Frequent Types of Enquiries Regarding Trees.**

| Nature of Enquiry | Total per problem | % of Total |
|---|---|---|
| Overhanging Trees and Branches | 495 | 39% |
| Branch Failure | 74 | 6% |
| Trees blocking light | 70 | 5% |
| Root encroachment | 66 | 5% |
| Tree proximity | 54 | 4% |
| Fallen tree needing emergency clearance | 41 | 3% |
| Trees causing damage to property | 74 | 6% |
| Dying Trees | 40 | 3% |
| Leaning Trees | 19 | 1% |
| All other enquiries | 151 | 11% |

### Damage to Property Caused by Tree Roots

7.3 In Peterborough the potential for property damage due to volume change in clay soils is a significant limiting factor to maintenance of the existing tree cover and restricting the extent of new planting.

7.4 Clay soils predominate in the Peterborough area. Most of these are classed as shrinkable and are subject to volume change. When moisture is drawn out of shrinkable clay soils by vegetation, particularly trees, the clay shrinks which can lead, in some circumstances, to property damage. Most volume change is seasonal and as soils rehydrate in the winter months and levels are restored. Modern buildings are designed to cope with some seasonal movement. Since 1976 the National House Building Council (NHBC) Chapter 4.2 recommendations for foundation depth when building near trees has reduced the incidence of damage.

7.5 When soils no longer rehydrate a permanent water deficit is formed. If large trees are removed, where they have created a permanent water deficit, water uptake stops and the soils can rehydrate lifting any building that has been built on the dehydrated ground. This type of property damage known as heave is rare and mainly found on very plastic clay soils such as London clay. Local soil types are not normally associated with heave and the damage it can cause.

7.6 In the NHBC guidance tree species are classed depending on their water demand. It is often high water demand species such as poplar and willow that are linked with subsidence damage to properties. However, in some circumstances, tree species listed in the NHBC guidance as moderate or low water demand can be implicated in structural damage to buildings.

7.7 Any cases of property damage resulting from encroachment of the roots of Council owned trees on to private land will be investigated by the Council on a case by case basis. It is not reasonable to remove all trees that could conceivably damage property when no damage has occurred, this would involve a huge loss of amenity and ecosystem services. However, the potential of Council owned trees for root encroachment will be considered in the management of the existing woodland belts and street trees and when new trees are being planted. Where, in the past, trees

and woodlands have been planted with unsuitable species in unsuitable positions in relation to buildings there will be a policy of restructuring and management to enable trees and buildings to co-exist.

7.8 Trees in close proximity to light structures such as free standing walls, patios and paved areas can cause damage by direct pressure of the stems and roots as they grow and expand. Stem and root expansion can cause cracks in free standing walls. Surface roots can lift pavements and other hard surfaces. The Council will seek to minimise the impact of roots of council owned trees particularly where these present a risk to the public safety. BS 5837:2012 gives guidance on the clearance needed to avoid direct damage and trees need to be very close, normally under 1 m from a structure, for this class of damage to occur.

7.9 Tree roots can proliferate in drains, which offer ideal rooting conditions, sometimes blocking them. However, tree roots have little capacity to enter well maintained and intact drainage systems. In the case of drainage problems linked to tree roots a drainage expert is the best source of advice.

## 8. Service Delivery, Policies and Priorities

### Standards of service delivery

8.1 Trees are complex organisms with a long natural lifecycle, in order to manage them sustainably, a strategic operational approach is essential. As understanding of the way pruning affects trees has evolved, the basic premise has not changed: all tree surgery is not for the benefit of the tree, other than to enable it to continue to co-exist in an artificial human environment.

8.2 The management and maintenance of trees is therefore a complex and skilled task, often requiring different services and organisations to work closely together in order that trees are appropriately managed to minimise the risk they may pose and may be posed to them.

8.3 An important part of delivering an effective risk management system is ensuring that the tree managers have the pre-requisite skills, with suitable qualifications and experience to meet the challenges.

8.4 The complexity of tree stock within Peterborough requires well trained Arboriculturists as an integral part of a defensible tree and woodland management service. This has been substantiated by industry best practice, peer review and confirmed in common law precedence.

8.5 The breadth of arboricultural knowledge and skill is not only needed by those who undertake the works, pruning, planting and removing trees, but in this highly regulated industry, also those inspecting the trees, responding to service requests and specifying works must be appropriately qualified.

8.6 The analysis of enquiries received over the last five years of the contract has enabled the Council to monitor customer concerns, prioritise work and the way that it is undertaken. Improved levels of consultation and communication have been developed, which are detailed below. Equally,

firmer policies have been developed that inform residents of the Council's actions in respect to common concerns. These policies are integral to a more pro-active level of service delivered within financial constraints (See Appendix 8 for the Consultation Protocol).

**Legal Considerations (meeting the Council's Duty of care)**

8.7 The risk presented by trees is low. For example the Health and Safety Executive estimate the risk of death caused by a failing tree or branch is 1 in 10,000,000 which is much lower than the risks accepted by people on a day to day basis such as using the roads where the risk of death is 1 in 16,800. These low risks must also be balanced with the benefits trees provide.

8.8 The Council has a duty of care to employees and members of the public in respect of safety of the trees in its ownership. This does not mean that the Council must maintain all its trees in a safe condition. Trees are dynamic organisms, subject to the forces of nature, which can fail without showing warning symptoms and can never be classed as entirely safe. However, the Council must try to keep risks presented by trees as low as is reasonably practicable.

8.9 The most recent guidance in the Tree Health and Safety Group's "Common Sense Guide to the Management of Tree Safety" published by the Forestry Commission in 2011 sets how out a Local Authority should approach tree safety. This involves zoning areas based on the usage of the ground around the trees, working out a level of tree inspection needed, employing trained and competent staff to complete various levels of survey and recording and storing all findings on a database.

8.10 In 2012 Council produced a Tree Risk Management Plan (Appendix 4) which includes all the measures recommended in current guidance. The strategy has been fully implemented with all streets trees checked and their details entered on the data base. Basic level inspections have been completed for the PDC legacy woodlands.

8.11 The instigation of the database and a system of inspections has led to a pro-active system of management complimented by structured systems to respond to service requests. These have delivered greater efficiency and economy savings over the position before the system was in place.

**Stakeholder Involvement**

8.12 It is very important that stakeholders and residents within the City understand the principles set out in this strategy particularly that cyclical renewal and management of trees is necessary to ensure their long term sustainably. The strategy will be widely distributed and available on line on the Peterborough City Council web site. It is hoped residents will be assured that the City's trees are being sensitively and professionally managed to achieve long term sustainability. The Council would like residents to feel a sense of involvement and communal ownership and take pride in the City's extensive tree cover, woods and greenspaces.

8.13 Before adopting this strategy the Council will have consulted with a range of local organisations who were invited to comment. These included;

- The Local Conservation Bodies

- Peterborough Environmental City Trust
- Town and Parish Councils
- The Nene Park Trust
- The Woodland Trust

8.14 The Council will seek to support community based projects regarding trees, in particular to encourage schools and youth groups to become involved in the City's trees and woodland.

8.15 Trees and woodlands offer a variety of outdoor opportunities for recreation and learning. The priority will be to provide high quality access near to where people live and work. To ensure woodlands remain valued as a lifelong resource, appropriate information needs to be freely available. This should include recognition of their historic, archaeological and cultural significance.

8.16 Partnership working promotes community involvement and so links to existing partners should be strengthened and new ones established by providing advice and support to communities with plans to create and maintain their own woodland or become involved in managing existing blocks of woodland in their neighbourhood. Partnerships can help support funding applications and could qualify for funding from organisations such as The Woodland Trust under the 'Morewoods' scheme. The proposed tree planting campaign to create the Forest Of Peterborough is another example of a productive partnership helping deliver the objectives of this Trees and Woodland Strategy.

8.17 All queries on tree matters will be promptly responded to and residents views given due consideration. When making management decisions, it may not always be possible to comply with resident's wishes in respect of neighbouring trees.

8.18 The Council are committed to ensuring that, when undertaking tree work, local residents are kept informed. Notice of major tree works will be published on the Council Website as detailed within the consultation protocol detailed that forms Appendix 7.

## General policies

***TP 1: The Council will maintain its trees and woodlands in accordance with its obligations to observe duty of care and the safety of both people and property.***

**Priorities:**

TP 1.1: The regime of periodic tree inspections and data recording as set out in the Tree Risk Management Plan will be continued.

TP 1.2: Staff employed to deliver the contract will maintain a high level of training and continued professional development to ensure that tree management decisions are well founded and in line with current industry practice.

TP 1.3: To undertake tree works in line with the risk based prioritisation.

***TP 2: The Council will encourage a better understanding of tree and woodland management and in so doing promote community involvement.***

**Priorities:**

TP 2.1: The Council will seek to disseminate information on its tree and woodland activities as widely as possible.

TP 2.2: The aim will be to support and maximise community involvement in the City's trees and woodlands.

***TP3: The removal of trees and woodlands shall be resisted, unless there are sound Health and Safety or arboricultural reasons supported within this strategy.***

**Priorities:**

TP 3.1: The removal of healthy trees in response to complaints shall be resisted unless the complaint has an overriding justification and no alternative management practice can be implemented.

***TP4: The Council will maintain its trees and woodlands in a way that demonstrates best practice, providing worthy examples of management for others to follow.***

**Priorities:**

TP 4.1: To provide plans for long term management and development of trees and woodlands as essential components within the landscape.

TP 4.2: To ensure the best use of resources is made during the planning of operations.

TP 4.3: To supplement the Council's spending by seeking additional funding from external sources where ever possible.

TP 4.4: To realise any economic potential of trees, and woodlands, or materials generated from them, where this does not conflict with the other policies and priorities of the Strategy.

## Operational Policies

### Bird Droppings

***TP5: Policy: Council trees will not be prune or removed to stop or reduce bird droppings from trees, nor will the council remove bird droppings from private land.***

Bird droppings may be a nuisance, but the problem is not considered a sufficient reason to prune or remove a tree. Nesting birds are protected under the Wildlife and Countryside Act (and other related wildlife law).

**Priority:**

TP5.1Residents will be advised of their powers to exercise your Common Law right to remove the nuisance associated with encroaching trees or alternatively that warm soapy water is usually sufficient in removing bird droppings.

### Blossom

***TP6: Policy: Council trees will not be removed to stop or reduce blossom from trees and fallen blossom will not be removed from private land.***

Blossom is a natural occurrence, which cannot be avoided by pruning.

**Priorities:**

TP 6.1 Roads, streets, foot or cycle paths swept of excessive blossom as part of normal cleaning cycles.

TP 6.2 Residents will be informed of their entitlement to exercise their Common Law right to remove (abate) the nuisance associated with encroaching trees.

### Low Tree Branches; Road, Cycle or Footpath

***TP 7: Policy: The council will carry out work to a council owned tree with the aim to maintain a minimum of:***

- Road – 5.5 metre height clearance
- Cycle path next to a road or highway – 3 metres height clearance
- Footpath next to a road or highway – 2.5 metres height clearance

**Priority:**

TP 7.1 These works will be identified and actioned in routine pro-active surveying and as a result of reported breaches of these standards.

### Trees Overhanging Property

***TP 8: Policy: Council owned trees will not be pruned or removed to stop the nuisance of overhanging branches.***

Priority:

TP8.1 All trees (excluding woodland areas) will be inspected every three to five years, depending on how much the area surrounding them is used. Maintenance will be carried out, if the tree is considered likely to touch property structures prior to re-inspection.

TP8.2 Residents will be informed of their entitlement to exercise their Common Law right to remove (abate) the nuisance associated with encroaching trees.

### Drains

***TP9:Policy: The roots of Council owned trees will not be pruned, removed or cut to prevent roots entering a drain that is already broken or damaged.***

**Priorities;**

TP 9.1Residents will be advised that tree roots typically invade drains that are already broken or damaged.

TP 9.2 Trees themselves very rarely break or damage a drain. Tree roots found in drains are usually due to an underlying problem with a broken pipe.

TP 9.2 If residents are concerned about the condition of their drains they are advised to contact their water and Sewerage Company or a drainage expert.

### Fruit, Berries, Nuts and Seeds

***TP10:Policy: Council owned trees will not be pruned or removed to stop or reduce the nuisance of fruit, berries, nuts or seeds, nor will the council remove fallen fruit, seeds or seedlings from private land including gutters.***

**Priorities:**

TP 10.1 Should fallen fruit lead to a significant anti-social problem residents will be advised to contact the police.

TP 10.2 Residents will be advised that the maintenance of gutters is the responsibility of the landowner and that the council is not obliged to remove fruit/berries/nuts/seeds or seedlings that may have fallen from council owned trees.

TP 10.3 Residents or the council's tree team will report a road, street or highway that needs to be cleaned, under the cleansing contract.

### Poisonous Berries

***TP11:Policy: There is no general policy to remove trees bearing poisonous fruit / foliage (such as yew trees). However, where it is claimed or known that unsupervised young children or livestock are likely to be exposed to poisonous berries or foliage, such cases will be investigated and appropriate action considered.***

**Priority:**

TP11.1 All reported concerns over a tree with poisonous berries that unsupervised young children are exposed to will be investigated promptly.

### Leaves

***TP12: Policy: Council owned trees will not be pruned or removed to stop or reduce leaf fall nor will the council remove fallen leaves from private property.***

**Priorities:**

TP12.1 Residents will be advised that the loss of leaves from trees in the autumn is part of the natural cycle and cannot be avoided by pruning.

TP 12.2 Residents will be advised that the maintenance of gutters is the responsibility of the landowner and the council is not obliged to remove leaves that may have fallen from council owned trees.

TP 12.3 Where leaves have been reported to have accumulated on council owned roads, footpaths these will be reported to the street cleansing team.

### Light

***TP13: Policy: A Council owned tree will not be pruned or removed to improve natural light in or to a property. This includes properties with (or planned to be installed) solar panels.***

**Priority:**

TP13.1 Residents will be advised that in law there is no general right to light.

### Suckers from Tree Roots

***TP14: Policy: Council owned trees will not be pruned or removed to stop or reduce the nuisance of sucker growth on private land.***

**Priority:**

TP 14.1 Residents will be advised of their rights to remove suckers on their land.

### Personal Medical Condition – Complaint

***TP15: There is no policy regarding personal medical conditions that may be specifically affected by nearby Council owned trees. Such cases will be investigated, and appropriate action considered.***

**Priority:**

TP 15.1 Residents will be informed of their entitlement to exercise their Common Law right to remove (abate) the nuisance associated with encroaching trees.

### Pollen

***TP16:Policy: Council owned trees will not be pruned or removed to stop or reduce the release of pollen***

TP16.1Residents will be advised that pollen is a natural and seasonal problem.

***Trees Affecting Street Lights, Signs and Traffic View***

***TP17: Work on a council owned trees will be undertaken to maintain clear sight lines (where feasible) at junctions, access points (associated with a street, road or highway), traffic signals and street signs.***

**Priority:**

TP 17.1 These works will be identified and actioned in routine pro-active surveying and as a result of reported, breach of these standards.

### Sap and Honeydew

***TP18: Policy: Council owned trees will not be pruned or removed to reduce honeydew or other sticky residue from trees.***

**Priority:**

TP18.1 Residents will be advised that honeydew is a natural and seasonal problem. When new trees are planted we try to choose trees less likely to cause this problem.

### Subsidence Damage to Property (Tree-related)

***TP19: The council has in place active tree management systems to minimise risk of damage being caused to buildings and other structures because of the action of council owned trees.***

**Priorities:**

TP19.1 Residents will be advised that if they have concerns about tree related subsidence damage to property, that they should contact their insurance provider for advice.

TP19.2 If a residents wishes to make a formal claim for damage they will be advised to contact the Council Insurance Team Direct. Alternatively the case will be investigated by the Council's Tree Team, once reported.

### Trip Hazard

***TP20: The council will make safe an unacceptable trip hazard caused by the growth of council owned trees.***

**Priority:**

TP 20.1 All reported cases will be investigated and actioned accordingly.

### Tree Touching Building

***TP21: Policy: If a council owned tree is touching a property (house, boundary wall, garage etc.) action will be taken to remove the problem.***

**Priority:**

TP21.1 All reported cases will be investigated and actioned accordingly.

### Tree Too Big / Too Tall

***TP22: Policy: Council owned trees will not be pruned or removed because they are considered to be too big or tall.***

**Priorities:**

TP22.1 Residents will be advised that a tree may seem too big for where it is, but this doesn't make it dangerous.

TP22.2 All trees (excluding woodland areas) will be inspected for safety. We inspect them every three to five years, depending on how much the area surround them is used. Maintenance will be carried out, if necessary.

### Tree and TV / Satellite Reception

***TP23: Policy: Council owned trees will not be pruned or removed to prevent interference with TV / satellite installation / reception.***

**Priority:**

TP23.1 Residents will be advised that their satellite or TV provider may be able to suggest an alternative solution to the problem.

### View

***TP24: Policy: Council owned trees will not be pruned or removed to improve the view from a private property.***

**Priority:**

TP 24.1The Council will promote the amenity value offered by trees in their own right.

### Wild Animal / Insect Pest

***TP25: Policy:*** Council owned trees will not be pruned or removed to stop or reduce incidents of perceived pests such as bees, wasps, or wild animals, unless it is in the national or public safety interest to do so due to a harmful invasive species.

**Priorities:**

TP25.1 Residents will be advised that Bees are protected species and advice should be taken before considering their removal.

TP25.2 On private land residents will be advised that external companies provide a chargeable service for removing certain pest species.

## 9. Policies and Priorities for the Management of Council Owned Trees

9.1 The Council's tree stocks can be divided into seven main categories as follows:

- Street Trees and Trees in Residential Areas: Street trees are planted in pavements or road verges. These help to filter traffic pollution, provide shade for car parking and improve the overall appearance of the street scene. Trees in residential areas are trees growing within and around housing estates and planted by the original Parks Department or the Peterborough Development Corporation to enhance the local environment.
- Avenues and other arboricultural features were little utilised by PDC that favoured more naturalistic design layouts. The avenues that exist in the City are in the older parks or lining some of the streets (mostly planted since 1988).
- Parks and Open Spaces: These are frequently the trees of greatest local significance and provide maximum visual amenity for both residents and visitors.
- Woodlands: These are some of the remaining pockets of the original Rockingham Forest that once covered the area. Grimshaw Wood, an ancient woodland site and Local Nature Reserve in Bretton, is one such woodland which is an unusually valuable wildlife and amenity resource within the urban fringe.
- PDC Legacy Woods: Formerly classed as shelterbelts, they were mostly planted alongside the parkways and in areas that separated the new townships. They provide visual amenity and habitat for wildlife.
- Village and Rural Trees: The villages have a unique character, much of which is achieved by their content of historic trees, as well as those growing within the surrounding countryside.
- New and Replacement Planting: polices and priorities in respect of new and replacement planting are a key element of the strategy and decisions made now will have a bearing on the future resilience and sustainability of the City's tree cover.

9.2 Each category of tree cover is assessed below and the specific policies and priorities that relate to them are detailed.

### Street Trees and trees in Residential Areas

9.2.1 The City has approximately 50,000 street trees and trees in residential areas which have to survive in difficult environments. Utilities demand space, as do road signs and streetlights. The limited space is made all the more challenging because of polluting car emissions, road salt, oil and other contaminants. Against the odds, trees can and do survive but often with a limited life expectancy.

9.2.2 The character of Peterborough's street trees varies considerably, from the older Victorian planting in roads like Broadway, the inter-war developments such as Dogsthorpe, to the newer developments built by the PDC. The Victorian areas contain large old trees, many of which are

managed as pollards. Today there is access to a wider range of smaller ornamental trees that are suitable for restricted sites.

9.2.3 Many of Peterborough's streets have tree populations that are over-mature. Such trees are vulnerable to climatic change, disease and damage. As time progresses this over-mature population of street trees will be removed as individual trees deteriorate. In these areas new trees will be introduced between the mature specimens to ensure that there will be continuous future tree cover.

9.2.4 A large proportion of public sector housing in the City was built by the PDC. The PDC tree and shrub planting areas include individual trees and tree groups interspersed with shrub planting. These enhance the environment and are very important to the quality of life for the residents. However, as the trees mature, design faults such as planting trees too close to buildings and each other and selecting inappropriate species for a given situation become evident. Problems of encroachment of branches and in some cases property damage are therefore becoming more common and make up a high proportion of enquires to the Council.

***Policy TP26: To endeavour to protect street trees from threats such as loss of verges and damage to same.***

**Priorities:**

TP26.1: Work with and monitor the activities of utility companies in order to minimise accidental operational damage to trees.

***Policy TP27: To place a priority on the replacement of ageing street trees; particularly where these adjoin major traffic routes. Planting will ensure the selection of the most appropriate species for the location.***

**Priorities:**

TP27.1: To plant new and replacement street trees in appropriate sites, giving priority to streets where trees are currently standing or have been in the past.

TP27.2: To consider alternative planting positions and methods of establishment where maintenance of street trees in the same positions of the trees to be replaced will be either unduly difficult or expensive to maintain.

***Policy TP28: To renew and restructure tree stocks planted by the Peterborough Development Corporation within residential areas;***

**Priorities:**

TP28.1 To introduce a phased removal of trees growing too close to buildings and replace with new planting more appropriate to the situation or relocate planting areas to more suitable sites in the neighbourhood. Replanting will be, as far as is practicable, carried out using a combination of standard trees, whips and bare root transplants.

TP28.2: To thin dense groups of trees to allow full crown development where there is sufficient space.

TP28.3: To ensure that replacement planting is sufficient to retain the existing level of canopy cover in the area.

**Avenues and other Arboricultural Features**

9.2.5 Avenues are found in some parks and in some cases street trees have been planted to form avenues such the example shown in Figure 7.

9.2.6 As avenue trees decline due to old age or due to the impact of pests and diseases, decisions on management and renewal are needed to perpetuate the formal landscape effect.

9.2.7 In some cases appropriate avenue species have been planted but in inappropriate situations. Figure 7 shows an avenue of fast growing London plane. These require careful management to maintain the landscape impact while avoiding issues caused by the proximity to buildings. Figure 8 shows the position of avenue tree in relation to a dwelling.

Fig 7: An avenue of semi mature London plane at Werrington.

Fig 8: The same avenue as shown in figure 7 showing the proximity to nearby buildings.

***Policy TP29: To maintain formal arboricultural features in the urban landscape by careful management and timely renewal as required.***

**Priorities:**

TP29.1 To consider the long term development and safe life expectancy of mature avenues and instigate a policy of gradual renewal and replacement in advance of them becoming untenable. Measures could include pruning, total removal and replacement, partial removal and replacement

***Policy TP30: To take action to restructure avenue trees planted with inappropriate species too close to neighbouring properties.***

**Priorities:**

TP30.1: In areas where avenue trees pose a potential threat to adjoining buildings, the council will manage or restructure the avenues to minimise the impact on the properties. Options will include but not be limited to:

- Removing avenue trees and replacing with low water demand species.
- Removing avenue trees adjoining buildings and filling the gaps with smaller low water demand species. As far as possible maintaining regular spacing and the avenue effect.
- For suitable species such as lime and London plane reduce the crown or pollard to reduce water uptake. This will only reduce water demand if the trees are pruned on short and regular cycle of no more than three years.

### Legacy Woodlands Established by PDC

9.2.8 280 ha of new woodland was planted by the PDC as part of the landscape masterplan. The woods extend for 117 kilometres. The woodland was planted with a limited number of core species predominantly ash, sycamore and Norway maple. However, a wide range of other native and ornamental species occur sporadically. The woods were designed to have good structure with larger trees at the centres grading to smaller trees and ground cover shrubs at the edges. Unfortunately the designs were not always adhered to and trees planted in random mixture sometimes putting large trees on the woodland boundaries.

Fig 9: An example of a well-structured belt with woody shrubs on the edge grading to ground cover shrubs on the roadside

Fig 10: A roadside of a belt with little structure and dense shallow crowned trees reducing the value of screening for residential properties to the rear.

9.2.9 Despite those localised issues, these woods provide considerable benefits in terms of ecosystem services, biodiversity and landscape amenity and represent an example of a far-seeing and impressive investment in the future by the PDC that is only now coming to fruition. However, the design of these woods has a flaw which is that many trees, including some unsuitable fast growing species, were planted too close to residential properties as illustrated in figures 11 and 12. It has been identified that the issue of proximity, particularly encroaching branches, accounts for around 40% of enquires received by the Council.

Fig 11: Trees encroaching towards a residential property.

Fig 12: The close proximity of trees to the rear of properties cause a range of problems for residents which will become worse as the trees grow to maturity.

***Policy TP31: The Council will seek to reduce impact of woodland trees on adjoining properties.***

**Priorities:**

TP31.1: Starting on a trial basis, and only where necessary, the woodland belts will be restructured cutting trees back from the edge of property boundaries by up to 7m. Following the tree removal new native small trees and woody shrubs will be planted to form a woodland fringe. The replanting will both replace the lost biomass and provide improved wildlife habitat. In addition to the edge clearance some light selective thinning will be carried out in the belts to ensure some of the best trees have room for proper crown development. The aim of the thinning is to slowly reduce the number of trees in some of the belts to achieve the effect of groves of full crowned trees rather than dense woodland conditions. However this process will be done in stages, to maintain stability and to spread the significant financial impact.

TP31.2: High water demand trees within influencing distance of adjoining properties will be progressively removed in thinning.

TP31.3: As part of the Tree health and safety strategy basic level checks will be periodically carried out on boundary trees, looking for obvious defects that present a risk of failure.

***Policy TP32: The woods will be managed in a fully sustainable manner which will include periodic thinning to allow proper crown development and light to reach the woodland floor.***

**Priorities:**

TP32.1: In suitable woods selective thinning will be carried out removing no more than 10% of the trees by number. Where appropriate these thinnings will be sold.

TP32.2: Mechanisation such as a tractor mounted tree shear shown in Figure 14 will be used where it is practicable to reduce the cost of management. Economical mechanised working will help address the problems of proximity to buildings and high water demand trees in a cost efficient way. However, not all areas are suitable for this approach. The tree belt survey completed in 2013 found that 40% of the tree belts were suitable for mechanised working and in a further 15% some mechanised working was considered possible.

TP32.3: Those woodland belts that are unsuitable for either thinning or re-structuring with a dense low cover of species such as hawthorn and blackthorn will be managed as non-intervention areas.

Fig 13: Sustainably produced woodland produce; a source of carbon neutral fuel wood


Fig 14: A tree shear mounted on an excavator or tractor can delicately extract trees from dense broadleaved woodlands

***Policy TP33: The woods will not be clear felled and management will be on a continuous cover basis.***

**Priorities:**

TP33.1: Natural re-generation within the woodland belts will be managed and encouraged.

TP33.2: Management will endeavour to increase the range of age classes within the woods.

***Policy TP34:The Council will encourage community involvement and advise residents when work is proposed.***

**Priorities:**

TP33.1: The council will try to address the problems of anti-social behaviour in woodlands.

TP33.2: The Council will encourage community involvement in the woods and support projects such as Nene Coppicing and Craft.

### Parks and Open Spaces

9.2.10 Trees are fundamental to the structure of parks and very important contributors to the environment of the area. The nature of different parks and green spaces is very variable. For example, Central Park has a declining tree population displaying over maturity in comparison to Bretton Park with younger but neglected stock all planted by the PDC which is now in great need of management by selective thinning. The latter is now urgently required to prevent very high losses over the next ten years. For this reason management has to be planned on a site by site basis.

9.2.11 Certain newer areas of Peterborough contain large open spaces of short grass and minimal structural planting. These areas are ideal for enhancement. Research within The Woodland Trust's "Trees or Turf" report aims to demonstrate that management of woodlands could be markedly cheaper than maintaining some types of grassland. By creating small woodlands on such amenity grassland opportunities for wildlife can be promoted in addition to landscape enhancement and providing a contribution to the forest for Peterborough targets.

***Policy TP35: To maintain tree cover within all the City's parks by renewing the tree stocks and increasing the range of age classes present***

**Priorities:**

TP35.1: To commence a replacement programme that incorporates a diverse range of tree species and, where appropriate, to re-establish historic landscapes.

TP35.2: To ensure that management work takes into consideration the sensitivities of the residents who use and care about the parks. In particular, to ensure that the reasons for particular operations are explained to the public before commencement.

TP35.3: To carry out tree removal and replanting in a phased way rather than causing large amounts of disturbance and change to the landscape of the park in one operation.

TP35.4: To carry out replacement tree planting in anticipation of the need to replace older tree stocks in the future. Planting of low maintenance bare rooted whips with appropriate guards will be favoured over larger planting stock.

### Woodland

9.2.12 Cambridgeshire and Peterborough are amongst the least wooded areas in the UK. The total area of woodland, of 0.1 ha and over, is 12,325 ha. This represents 3.6% of the county land area. A considerable proportion of this is ancient semi-natural woodland which represents a valuable wildlife and landscape resource.

9.2.13 The City Council own six ancient woodlands. It manages The Bretton Woodlands (including Grimshaw Wood and Pocock's Wood) and leases the others to Nene Park Trust and the Woodland Trust. These areas amount to approximately 27 hectares and have attracted the designation of Local Nature Reserves. The Bretton Woodlands include Highlees Spinney which is not an Ancient Woodland but is a former coppice and standards wood with the same species mix and general condition. Bretton woodlands contain a high proportion of ash and were formerly managed as oak and ash standards with mainly ash and some hazel coppice.

9.2.14 In 2013 a 20 year management plan was produced for the Bretton Woodlands which has now been implemented with the aid of Forestry Commission and Heritage Lottery fund grants. Improved access and signage has facilitated better access to the woods with some coppicing having been completed. However, coppicing of the ash stools in the wood has been suspended due to the risk of ash dieback.

9.2.15 Peterborough contains 78 hectares of wet woodland habitat across 73 sites. Of these, the majority are less than 1 hectare in size. Wet woodland is nationally and locally rare. It is a priority habitat within the Cambridgeshire and Peterborough Biodiversity Action Plan owing to a rich diversity of habitat. Opportunities to create new wet woodlands will be sought in accordance with the wet woodland audit completed in 2004 by a partnership of organisations including the Forestry Commission and the City Council.

***Policy TP36: The Council will aim to achieve sustainable management of its ancient woodlands and to protect and preserve wet woodland habitats.***

### Priorities:

TP36.1: The Council will, as far as possible in the light of the threat from ash dieback, fully implement the Bretton Woodland Management Plan (Ash is a major component of the Bretton Woodlands).

TP36.2: The Council will monitor the impact of impact of ash dieback on its ancient woodlands and take all necessary measures to maintain the integrity and conservation value of the areas.

TP36.3: The Council will seek to protect and extend the areas of wet woodland.

### Village and Rural Trees

9.2.16 Many of the trees in the villages and rural areas are privately owned. In spite of this the Council still has responsibility for a significant proportion which total approximately 5000. These trees include trees up to 200 years old and are amongst the oldest managed by the Authority.

9.2.17 Locally, elm was once one of the most important trees. When Dutch EIm Disease (DED) struck this dominant hedgerow tree was lost. Considerable areas of relatively denuded landscape have not been replaced, particularly within areas of more intensive farming. While most of the common elm has gone, there remains elm regeneration that exists within a continual state of growth followed by disease related decline. Some mature DED resistant elms are found to the west of the City particularly Huntingdon elm (*Ulmus x hollandica* 'Vegeta') and wych elm (*Ulmus glabra*). While these species are resistant they are not totally immune from the disease.

9.2.18 Distinctive village scenes can be maintained and enhanced by planting tree species that originally generated such landscapes. The use of native species will be prioritised within locations where appropriate i.e. rural verges. In certain village locations the use of non-native stock may be considered where site restrictions or the surrounding landscape dictates. For the foreseeable future planting of ash will not be supported.

9.2.19 Many trees have been planted on verges by village communities. Where possible, the Council has helped facilitate these requests by offering suitable planting locations and the commitment to manage those trees planted on Council owned land.

9.2.20 The Council will fulfil its duty of care in respect of Council owned trees in villages which will be surveyed in line with the Tree Risk Management Plan.

***Policy TP37: The Council will preserve and enhance the distinctiveness of village and rural trees in its ownership.***

**Priorities:**

TP37.1: To ensure that all Council owned trees in Villages are logged on to the Tree data base and receive periodic inspection in line with the Tree Risk Management Plan.

TP37.2: To replace all trees which are removed in these areas and attempt to expand tree cover if appropriate.

TP37.3: To re-plant using suitable native trees except where this would result in loss of familiar vernacular.

### New and Replacement Planting Plan

9.2.21 A key aim of this strategy is to increase the numbers of trees within the City by both new and replacement planting. Opportunities to improve wildlife habitats and connectivity between woods and tree groups will be a major consideration in setting out new planting areas.

9.2.22 Trees as living organisms have a finite life expectancy. Whilst relatively long-lived, the stress and strain of the urban environment significantly shortens their life span. Tree surveys and inspections in the City have revealed a large number which are not suitable for their location in the medium to long term.

9.2.23 The expansion of tree cover will be on a planned basis. To build in resilience to pests and diseases, planting stock will be selected from a wide range of genera and species. The guiding principle for new planting will be using no more than 10% of the same species, no more than 20% of the same genus and no more than 30% from the same plant family. However, this principle must be balanced with other factors such as site conditions and design criteria. There is a limited range of native tree species (approximately 35 species excluding micro species drawn from 21 genera and 11 plant families) therefore where ecological considerations dictate that native species are used it will be more difficult to achieve the desired variation.

9.2.24 While the aim is to produce a more even spread of canopy cover over Council Owned land it is important that we set targets to achieve this through a combination of Council tree planting budgets and the allocation of land for the "Forest for Peterborough" scheme. As detailed earlier within the strategy, the council has very high levels of canopy cover on land within its ownership. The aim will be to retain and expand this cover in the following ways:

- Council owned street trees that are removed will be replaced on a one for one basis, using established nursery grown standard trees.

- Trees felled owing to them being inappropriate for their location will replanted on a one for one basis, typically elsewhere within the ward. The size of nursery stock used within these location will vary to the planting location.

- Trees felled within groups, avenues or woodlands will not be replaced, where it is considered appropriate arboricultural or woodland management, to reduce competition between species.

- Wards where the % of city land covered by tree canopy falls below 25% will be the focus for additional tree planting. Simplistic modelling based on an average tree canopy of 0.012 ha (the average canopy spread from the canopy cover data) would indicate that a further **5164** trees would need to be planted on council owned land. The size and nature of planting will be dependent on the planting locations available. Delivery of these targets will be dependent on constraints within the land ownership.

- **Table 4 – Tree requirements to meet target by Ward**

| Ward | %PCC Land Covered | Difference 25% Target | Land Required Ha | Trees required |
|---|---|---|---|---|
| East | 22.84 | 2.16 | 3.09 | 257 |
| Central | 22.17 | 2.83 | 1.28 | 107 |
| Fletton and Woodston | 20.49 | 4.51 | 2.71 | 226 |
| Barnack | 19.13 | 5.84 | 6.62 | 385 |
| Dogsthorpe | 17.97 | 7.03 | 6.87 | 573 |
| Eye Thorney | 14.60 | 10.40 | 13.49 | 1124 |
| Stanground Central | 13.78 | 11.22 | 7.70 | 641 |
| Northborough | 13.26 | 11.74 | 6.04 | 503 |
| Newborough | 9.39 | 15.61 | 16.17 | 1348 |
| | | | **Total** | 5164 |

9.2.25 Many of the problems encountered during the daily management of trees can be directly attributed to the inappropriate choice of species at the time of planting. Greatest long term economic savings in tree management can be achieved by ensuring the philosophy of “Right Tree in the Right Place” is followed every time a new or replacement tree is selected and planted.

9.2.26 Deciding which tree species to plant will take account of a range of factors beyond purely ornamental or conservation values. Trees must be selected in the light of the need for resilience to changes caused by climate change in particular drought resistance. Some diseases such as Ash Dieback will be a major limiting factor for the use of certain species or genera.

9.2.27 Planting is only the first stage in the process of planted trees achieving independence in the landscape. Well drafted planting specifications will ensure healthy trees are established, failures minimised, and defects, which could affect the mature condition of the tree, removed at the time which is most cost effective.

9.2.28 A tree requires space in which to grow, if it is to thrive and provide its many positive benefits. To achieve this any proposed site should provide adequate space for both the tree and, most importantly, its root system to develop in the long-term. Species selection must be with consideration to the tree's likely ultimate size.

9.2.29 The constraints of the urban environment can make the enlargement of woodland and other habitats impractical. With fore-planning and management of open spaces and gardens that border these sites, effective buffers and extensions can be created.

9.2.30 Peterborough’s most limiting resource is space. This needs to be used appropriately, and to greatest sustainable benefit. The application of "Right Tree in the Right Place" framework will ensure new planting and natural regeneration are appropriately located and designed, and that woodland expansion is not to the detriment of protecting and restoring existing woodlands. The framework for tree and location selection is set out briefly in Appendix 5.

9.2.31 In some parts of the City the constraint of sufficient public space means a low number of trees. Often in these areas there are prominent privately owned sites.

***Policy TP38: The Council will encourage an increase in tree cover by new and replacement planting, placing great emphasis on use of appropriate tree species.***

**Priorities:**

TP38.1: To implement the planting plan that sustains the tree population, with emphasis on the long term replacement of mature and over mature trees.

TP38.2: Allocate a percentage of the total tree budget to fund the replacement and new tree planting targets set.CTNP 1.3: As and when the prospect arises, to work with other organisations to secure additional funding streams for the establishment and management of tree stocks.

TP38.3: To pay careful attention to the site conditions in particular providing sufficient space for root development.

TP38.4: To ensure that all planting stock used, of whatever type, is healthy and has a well formed root structure. Imported plants must have spent at least one growing season in the UK and be free from pests and diseases.

TP38.5: To ensure all newly planted trees achieve independence in the landscape by virtue of a sustained programme of maintenance.

TP38.6: As far as is practicable, reduce the tree maintenance commitment by the use of smaller planting stock that will establish quickly and require less attention.

## 10. Threats and Challenges

### Tree Pests and Diseases

10.1.1 In the last 20 years there has been a steady rise in the number of introduced tree pests and diseases some of which have the potential to cause significant loss of tree cover and the benefits they provide. The reasons for this include increasing levels of world trade particularly in plant material, world travel and changes in the climate making it suitable for pests from warmer environments to establish in the UK.

10.1.2 To illustrate the destructive potential of tree diseases the virulent strain of Dutch elm disease, which was imported into the country in the late 1960's on elm logs, killed around 23 million trees changing landscapes and reducing tree cover over large areas the UK countryside.

10.1.3 Among the recent introduction or occurrences of pests and diseases the following two examples pose a particular threat to Peterborough's trees and landscape:

### Ash Dieback (*Hymenoscyphus fraxineus*)

10.1.4 This fungal disease has caused extensive tree losses in continental Europe, for example killing over 90% of the ash population in Sweden. It was first found in the UK in 2012 and has rapidly spread from east to west across the country.

10.1.5 Ash forms 7.7% of the street and park trees in the City and, an estimated, 18.5% of the woodland tree population. The level of infection is currently low but expected to rise significantly in the next few years. The symptoms are initially browning and dead leaves and diamond shaped stem lesions as illustrated in Figure 15. This is followed by a fairly rapid dieback in the crown on larger trees. Typically, an infected tree will have tufts of re-growth that eventually succumb to the disease and illustrated in Figure 16. The progress of the disease can be quite rapid with large trees killed in a single growing season in East Anglia where the disease has become well established.

Fig 15: Dead leaves and diamond shape stem lesions are symptomatic of the disease.

**Forestry Commission Picture Library**

Fig 16: Typical crown dieback with tufts of regrowth

**Forestry Commission Picture Library**

10.1.6 There is, currently, no proven cure or treatment that can be applied. However, there has been extensive research to try to isolate resistant individuals and indeed, in areas of high infection, some trees appear to remain free from infection.

10.1.7 It is not clear how the disease will progress in the area so, at this stage, ash should not be pre-emptively removed.

10.1.8 Ash should be excluded from new tree planting schemes and alternative species planted. However, in woodland conditions, natural re-generation of ash should, as far as possible, be retained as it may contain resistant individuals.

**Oak Processionary Moth (*Thaumetopoea processionea*)**

10.1.9 The caterpillars of this moth feed on oak trees and defoliate the tree by eating the foliage. However, perhaps a more serious problem is the effect of the caterpillars urticating hairs, which detach from caterpillars bodies, causing serious allergic reactions and respiratory difficulties in humans and their animals.

10.1.10 This pest was introduced on imported trees into the London area in 2005. It was hoped to contain or eradicate the species by volume spraying foliage with insecticide and destroying the communal silken nests which have an accumulation of toxic hairs. Unfortunately, this policy has not been successful and the pest is spreading outside the London area. The current most northerly sighting is at Watford some 80 miles south of Peterborough.

10.1.11 The hairy caterpillars are shown on Figure 17. Perhaps their most distinguishing feature is that they cluster near food and follow each other in a nose to tail line when moving to and from feeding areas. They make silken nests on the stems and branches of oak trees as shown in Figure 18.

Fig 17: A cluster of caterpillars on an oak leaf clearly showing their urticating hairs

**Forestry Commission Picture Library**

Fig 18: A communal nest on an oak tree full of toxic hairs

**Forestry Commission Picture Library**

10.1.12 High populations of this insect will lead to repeated defoliation of oak trees which could seriously weaken them. However, trees are generally resistant to browsing insect damage and their lost leaves will generally grow back even after complete defoliation. This pest is more of a public health problem than a tree issue.

10.1.13 Oak trees form only 2% of the tree stock listed on the data base and around 4% of the PDC woodland belts but they are widely distributed around the City.

10.1.14 Given the public health risk the Council will take prompt action to try to eradicate populations of this insect as they are discovered on their land and offer help to private landowners to deal with the problem. The Council will also periodically review its policy on controlling this insect.

10.1.15 Both the Oak Processionary Moth and Ash Dieback present a serious threat and, if they become established, are likely to require a large amount of staff time and expenditure to deal with. Therefore they will both be added to the Council's risk register.

### Brown-tail Moth (*Euproctis chrysorrhoea)*

10.1.16 Another defoliating moth species is the Brown-tail Moth (*Euproctis chrysorrhoea).* This insect has already been found the City in 2013, 2015 and 2016. The infestations were limited in scale and contained by prompt action of Amey staff. The caterpillars also have hairs that cause an allergic reaction and they make silken winter nests normally strung between branches. They are often found in association with hedgerow trees. These insects should be avoided and will be subject to the same control policy as Oak Processionary Moth.

### Other Pests and Diseases

10.1.17 Other recently introduced diseases that have the potential to impact on the tree cover in the City are detailed in Table 4.

**Table 5 – Two other serious tree pests and diseases.**

| Species | Images of Infected trees | Details |
|---|---|---|
| Ramorum Disease (*Phytophthora ramorum*) |  Crown dieback in larch caused by Ramorum Disease **Forestry Commission Picture Library** | Initially known as "sudden oak death" this disease is currently mainly affecting larch but could affects a wide species range. It can kill larch trees within 12 months. The only control for Ramorum disease is to remove both the infected trees and a buffer of heathy trees to prevent the spread. There are few larch at risk in the urban area where they make up 1% of the population. However, they are likely to form a more significant component of farm and estate woods in the west of the unitary area. |
| Sweet Chestnut Blight (*Cryphonectria parasitica)* |  Stem lesions caused by the disease and a sweet chestnut stem **Forestry Commission Picture Library** | Recently found in the UK, this disease of sweet chestnut wiped out the entire population of American sweet chestnut on the eastern seaboard of the USA; killing an estimated 3.5 billion trees. Symptoms appear as cankers on the stem fungal mycelium under the bark. Sweet chestnut makes up around 1% of the tree stock in the urban area but are likely to be a more significant component of woods and parkland to the west. |

**Pests and diseases not yet established in the UK**

10.1.18 There are a number of very serious pests and diseases that have either not yet been found in the UK or have been found, and eradicated. Three examples are shown in Table 5. If they become established in the country, all have the potential to seriously denude the City's tree population:

**Table 6 – Potentially Damaging Pests yet to become established in the UK**

| Species | Images of Pests and Damage | Details |
|---|---|---|
| The Asian Longhorn Beetle, (*Anoplophora glabripennis*) |  An adult beetle with distinctive white markings and long antenna **Forestry Commission Picture Library** | Introduced into the USA from Asia the larva of this wood boring insect has killed large areas of urban trees. It is transported around the world in packing timber and by the international plant trade. A small population found in Kent has been eradicated by plant health officials. Any sighting of the large (25 to 30 mm) distinctive beetle must be reported to DEFRA and the Council without delay. It has a large host range encompassing many of the broadleaved species found in the City including maples that make up a high proportion of the tree stock. |
| Emerald Ash Borer (*Agrilus planipennis)* |  The adult beetle **Forestry Commission Picture Library** | This wood boring insect was introduced into the USA where it has devastated ash populations killing millions of trees. It is now present in Europe with a rapidly expanding population centred on Moscow. The larva of the insect bore into the stems of trees weakening and killing them. Wood boring insects are particularly attracted to trees in a weakened condition and, if it reaches the UK, trees infected with ash dieback would facilitate its rapid spread. |
| Plane Wilt (*Ceratocystis platani)* |  Extensive dieback on one side of the crown of London plane **Forestry Commission Picture Library** | This fungal wilt disease is related to Elm disease and works in the same way blocking water carrying vessels in the tree causing rapid decline. It is currently killing large numbers of London plane trees in France and throughout Europe. London plane are important street and amenity trees in the City only forming 4% of the tree stock but occupying prominent positions in the street scene. |

***Policy TP39: To maintain a high level of training and awareness of tree pests diseases and take prompt action, in accordance with best practice guidance, to, as far as is practicable, alleviate the impact when they are discovered.***

**Priorities:**

TP39.1 The condition of Council owned trees will be monitored as part of the normal health and safety inspections policy and promptly dealt with if they present a significant risk to the public. This does not mean that all infected or dead trees will be removed. The Council's policy on tree pests will be reviewed on an annual basis.

TP39.2 Where appropriate and advised, simple biosecurity measures such as cleaning boots, shoes and tyres after visiting woodlands will be implemented.

TP39.3 With regard to protected trees, the Council will not grant permission to fell infected ash trees unless the disease has caused the tree to become dangerous or to present a significant health and safety risk.

### Climate Change

10.2 The likely effects of climate change, caused by anthropogenic carbon emissions which are enhancing the greenhouse effect of the upper atmosphere include summer drought and more frequent storm events. Measures to both mitigate and adapt to these predicted effects of climate change will be incorporated into the strategy wherever possible, taking full account of the "Climate Change Strategy for Peterborough".

## 11. Privately Owned Trees and Woodland Policies and Priorities

### Trees and Development

11.1 The significance of the London–Stansted–Cambridge-Peterborough (M11) Growth Corridor means there will be major investment in housing, community facilities and infrastructure. This brings with it opportunities for innovative and strategically planned tree and woodland enhancement. It is essential that trees and woodlands are recognised as an essential part of the design and fabric of growth.

11.2 Accommodating the predicted growth in Peterborough's population and economy provides significant opportunities for a strategic approach to tree and woodland planting. There are a number of initiatives to enhance the natural environment. They all offer opportunities to increase the tree and woodland cover of Peterborough as part of the mosaic of green space and habitats. However, as each has its own agenda and priorities, efforts should be made to ensure that they are coordinated and complimentary.

11.3 The scale of development which will need to take place in coming decades will facilitate significant funding for the creation of attractive and green residential and business environments. Developers have a valuable role as the key player in the majority of land use changes. They need to respect the existing trees and where appropriate incorporate tree planting within new developments. There is extensive research showing that retained trees and newly planted trees increase the sale value of new properties providing firm financial reasons for developers to consider trees as integral part of their projects.

***Policy TP40: The Council will respond to tree issues within planning applications, in accordance with Local Plan Policies, in such a way that ensures the retention of good quality trees and woodland coverage or ensures its creation. Development will not be supported that would directly or indirectly damage existing ancient woodland or ancient trees.***

**Priorities:**

TP40.1: To be guided by best practice and local policies for a consistent approach to assessing planning applications.

TP40.2: Trees and woodlands are to be given significant consideration within planning applications, requiring submission of Arboricultural Impact Assessment (AIA) surveys in accordance with British Standard 5837:2012 "*Trees in relation to demolition, design and construction – Recommendations*". Where trees are on or within influencing distance of a potential development (within 15m of the development area), an AIA must be prepared and submitted as part of the planning application.

TP40.3: The British Standard sets out a process to protect trees at every stage of a development. The Council will, normally, condition the tree protection measures set out in the AIA. This will include proper provision for arboricultural supervision by a qualified arboriculturist and a timetable for inspection visits and the method of reporting findings to all parties including Council Tree Officers.

TP40.4: Producing an AIA is only the first stage in protecting trees during construction. The tree protection measures set out in the AIA are often either disregarded or are poorly implemented once planning permission has been granted. The Council will seek to enforce conditions relating to tree protection and to consider prosecution when planning conditions are breached or there are breaches of Tree Preservation Orders (TPO) or the requirements of Conservation Area regulations.

TP40.5: It is extremely important that plans for remedial tree planting and green infrastructure submitted as part of planning applications come to fruition. When granting planning permissions the Council will set conditions for the protection, planting and proper maintenance of trees and periodically check on compliance.

TP40.6: Where appropriate, the Council will allocate funds produced from the Community Infrastructure levy for community tree planting projects.

TP40.7: The Council will utilise planning powers to retain and protect good quality existing trees threatened by new development including changes to existing properties and enforce the tree protection measures put in place.

***Policy TP41: The Council will require that new and replacement tree and woodland planting to be included in new development proposals wherever it is practicable to do so***.

**Priorities:**

TP41.1: To require developers to submit details of tree species, size of planting stock to be used and numbers to be planted as part of their proposals. Planting should aim to replace any loss of biomass and, where practicable, retain or increase the canopy cover on the site. Where it is difficult to achieve the Council will consider offering alternative planting sites on its own land.

TP41.2: To ensure that provision made for tree planning takes account of industry best practice, in particular, BS 8545:2014 "Trees from nursery to independence in the landscape-Recommendations". Further guidance is available from the publications of the Trees and Design Action Group (TDAG).

TP41.3: The Council will encourage planting of healthy plant material. In the light of the threat from imported pests and diseases all planting stock used in the City should be healthy and sourced from reliable sources with appropriate documentation such as plant passports where required. While British grown stock is preferable, if imported stock is used it should have spent at least one year in a UK nursery under observation.

### Tree Protection

11.4 Statutory protection is afforded to trees under the Forestry Act 1967 (as amended) and permission from the Forestry Commission (FC) to fell growing trees is often required. There are certain exemptions which include trees in gardens, orchards, Churchyards and designated public open spaces. This permission is granted by the FC via a Felling Licence. Typically an application would be required where trees above 8 cm stem diameter at 1.3 m diameter above ground level need to be felled. If the felling is for thinning a plantation the minimum diameter rises to 10 cm and in the case of coppicing the minimum is 15 cm. A licence is not needed to fell up to 5 $m^3$ of timber within a given calendar quarter. However, this drops to 2 $m^3$ if the timber is sold. Any felling approved as part of a planning permission will not need a felling licence. Felling trees within the scope of the regulations without a felling licence is illegal and subject to prosecution and fines.

11.5 In conjunction with its duty, as set out in the Town and Country Planning Act, the Council will incorporate policies relating to Trees and Woodlands within its Local Development Framework. Policies protecting trees exist within the Core Strategy and Planning Policies Development Plan documents.

11.6 There are over 350 TPOs and 29 Local Authority Conservation Areas in the City. The pressure for development sometimes necessitates the pro-active use of TPOs. TPO's are also used reactively when a threat to the condition or retention of a tree is known. The Council will, as far as funding will allow, review many of its older Tree Preservation Orders.

11.7 The work on trees protected by a TPO places a duty on the tree owner to be granted permission from the Council prior to undertaking the work. The Council has a duty to respond to these

requests within 8 weeks. In the event that the Council refuse permission for work on, or removal of a protected tree, the owner can appeal to the Planning Inspectorate.

11.8 Before carrying out any tree work or felling of trees within a Local Authority Conservation Area the Local Planning Authority must be given six weeks advance notice. During the six week period the Council may decide to protect the trees in question. However, if no response is received from the Council work may proceed. Trees removed in a Conservation area must be replaced.

11.9 To carry out work, damage or remove trees which are the subject of Tree Preservation Order or within a Conservation order without permission is a criminal offence that, on conviction, carry fines of up to £20,000 per tree. However, if trees are illegally removed to facilitate development then the fine per tree is unlimited and may reflect the increase in land value that has resulted from the loss of the tree.

**11.10 Protection Through Advice**

11.11 Where necessary and appropriate the Council will provide advice on trees in relation to planning TPOs and work in Conservation areas with the aim of making the process more efficient and therefore provide a cost effective service.

11.12 There are, unfortunately, many people willing to offer tree advice which is inaccurate, and may have serious consequences for the tree and its owner. Arboriculture is an established technical discipline where qualifications at various levels are available. Research is carried out to further our knowledge of trees and their care, good advice is available and should be sought from reliable sources. Tree owners should be aware that research has resulted in updated and substantially changed tree management in the last 20 years. Consequently, any person offering advice should keep their knowledge up to date, through membership of an appropriate professional body.

11.13 Also of concern is the number of people who carry out tree surgery work whose technical abilities are poor. This can lead to low standards of work, which are not in the interests of the tree or its owner. Only reputable companies, capable of working to recognised standards of work such as “British Standard 3998: 2010, “Tree work. Recommendations", should be engaged to carry out tree work. Companies or individuals undertaking tree work should hold Public Liability Insurance cover and proof of cover should be provided before commencement.

11.14 As the Local Planning Authority, the Council has a statutory duty to protect trees of greatest amenity value. This section sets out the City Council's approach to the protection of privately owned trees.

***Policy TP42: The Council will seek to ensure that all trees and woodlands making a positive contribution to the environment are protected***.

**Priorities:**

TP42.1: To utilise and enforce planning powers to retain and protect trees through Tree Preservation Orders and Conservation Area status.

TP42.2: To comment and advise on strategy and other initiatives which affect trees and woodlands.

***Policy TP43: The outright removal of good quality trees and woodlands shall be resisted unless there are sound arboricultural and technical reasons such as irrefutable evidence of damage caused to a property by soil volume change associated with trees.***

**Priorities:**

TP43.1: To protect trees of amenity value

***Policy TP44: The Council will promote public awareness and a better understanding of tree and woodland management through community consultation and involvement.***

**Priorities:**

TP44.1 The Council will promote good standards of tree and woodland care.

TP44.2: To, as far as possible, encourage owners of notable trees that are worthy of protection to adopt better practices of tree care.

TP44.3: To support community tree initiatives.

TP44.4: To support the work of national bodies such as the Tree Council and the Trees and Design Action Group.

11.15 A summary of all policies for the management of all trees is provided in Appendix 6.

## 12. Summary of the Key Elements of the Strategy

12.1 This revised strategy highlights the immense value of Peterborough's urban forest to the wellbeing of its residents and the substantial contribution it makes to the City's sustainable future.

12.2 Since 2012 considerable progress has been made to put systems in place to manage the City's trees and woodlands, particularly the steps that have been taken to fulfil the Council's duty of care in respect of health and safety. This new strategy builds on these achievements.

12.3 The focus of this new strategy is consolidation of the Council's trees stocks; the legacy trees planted by PDC are even aged and all growing towards maturity at the same time. Up to this point they have required relatively low maintenance. However, increasing growth rates are causing conflicts with private properties on the boundaries of the woods and close to trees growing within residential areas. Dealing with these problems is taking up a high proportion of the allocated funds and unless positive management steps are put in place the level of service requests will increase exponentially. It is important that the need for this programme is recognised and adequate resources allocated.

12.4 Faults of both design and implementation by PDC such as planting trees too close to each other and buildings, and allowing deviation from carefully planned species layouts and mixtures need

rectifying by restructuring the legacy woodlands and trees and tree groups in residential areas. Where it is necessary to remove trees these will be replaced with more suitable species while retaining or improving the level of canopy cover.

12.5 Shallow, narrow crowned and un-thinned trees provide only a fraction of the ecosystem services of healthy full crowned trees. Dense woods prevent light reaching the ground leading to lack ground flora and poor natural re-generation of tree species. It is therefore necessary to instigate a programme of periodic thinning in many of the woods and tree groups.

12.6 The tree stock must be carefully managed to provide a degree of resilience to both imported pests and diseases and the climate change.

12.7 The expansion of the urban forest will be a priority to ensure that the ecosystem services can be maintained to meet the needs of a growing population. However this will be carefully planned and targeted to as far as possible avoid the mistakes of the past. The Forest for Peterborough project will be strongly supported.

12.8 Development in the City presents both challenges and opportunities for its tree cover. The Council will seek to ensure suitable trees are retained on development sites and commensurate and appropriate provision is made for new tree planting and green space.

12.9 Unless adequate resourcing chains are provided there is a danger that the problems will get progressively worse to the point where the tree stocks become a negative asset.

12.10 It is hoped that both stakeholders and residents of Peterborough will appreciate that the urban forest requires careful management to thrive and provide the considerable benefits of which it is capable. The Council's policies and priorities contained in this strategy represent a commitment to sustainable management of the City's trees for both the existing and future generations.

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## 14. Glossary of Terms

**Ancient Trees –** Trees significantly older, and often larger in girth, than the general tree population providing a rich variety of habitats for wildlife.

**Ancient Woodlands –** Woodland thought to have been in existence since at least 1600 and designated on the Natural England register of ancient woodlands.

**Biomass –** Renewable vegetation that can be used as a carbon neutral fuel source. This includes not only the timber but small branches and foliage.

**Carbon neutral fuel -** The term carbon neutral fuel is used for wood used for fuel that comes from sustainably managed woodlands where the carbon loss will rapidly be mediated by replacement trees

**Canopy Cover –** The area of ground occupied (covered) by the overall branch spread of trees normally expressed as a percentage of the total land area; hence Peterborough has a land area of 34,343 ha, a canopy cover of 3239 ha and therefore a canopy cover of 9.4%.

**Coppice and Standards –** A traditional woodland management practice of retaining a proportion of single stemmed trees within an area of coppice to grow on for timber production.

**Coppicing –** A method of repeatedly cutting back trees and woody shrubs to the base of the stem on a short cycle to produce small poles or rods. A traditional management technique associated with ancient woodlands which provides an important sequence of habitats for woodland flora and fauna.

**Ecosystem disservices –** Trees can cause problems in urban conditions particularity when growing in close association with roads, railways and buildings.

Trees can also have negative effects on the urban atmosphere for example roadside trees trapping polluting gasses under the canopy. However, most researchers see the net effect of trees on the atmosphere as positive.

**Ecosystem Services –** Services provided by trees and vegetation that contribute to the quality of the environment such as their capacity to sequester carbon from the atmosphere and reduce surface water runoff.

**Heat Island Effect –** Urbans areas are warmer than the surrounding countryside by virtue of the concentrated activities their population particularly energy use**.** Hard surfaces store thermal energy and release it slowly keeping up night time temperatures. In heat waves urban conditions can lead to even higher temperatures.

**High Water Demand Trees –** Trees that take up large amounts of water from the soil in comparison to other species with a lesser capacity to extract water.

**Legacy Woodlands –** Tree belts planted by PDC in the new townships and taken over by PCC on the winding up of the PDC in 1988.

**Mature trees –** Trees in the second third of their life cycle and still growing strongly.

**Natural Regeneration –** Young self-sown trees derived from naturally distributed seed produced by nearby trees.

**Newly planted trees –** Trees that require regular maintenance and have yet to become established in the landscape.

**Over mature trees –** Trees in the final third of their life expectancy and beginning to decline with very slow growth rates of growth or signs of natural retrenchment (bare dead branches in the upper crown with a healthy but reduced crown at a lower level)

**Pollarding –** A traditional management technique often used in deer parks and wood pasture which involves cutting off the tree at a height of around 3 to 4 m on a cyclical basis to provide firewood and small poles; the regrowth is then safe from browsing livestock and deer. In an urban situation pollarding is often used to control the crown spread of trees and reduce the water demand. Cyclically reducing trees to a low framework of branches is a form of pollarding. Some species are particularly tolerant of this treatment such and lime, London plane and willow.

**Semi Mature Trees –** Trees in the first third of their life cycle and growing strongly.

**SUDS –** Acronym for Sustainable Urban Drainage Schemes which allow for natural drainage of water runoff from roofs and hard surfaces into the ground, rather than directing runoff into the sewerage and main drainage systems.

**Specimen Trees -** Largely free standing, Council owned trees in streets or public open spaces.

**Structured Soils –** Specially formed soils that can be compacted but still allow root growth and water percolation. Normal structural soils have a high percentage of sand and gravels.

**Tree Stocks –** The total of Council owned trees.

**Tree Belt –** Narrow belt of trees typically 15 to 20 m often planted for screening and shelter. Tree belts were widely planted by PDC surrounding residential areas and edging roads.

**Urban Forest –** All trees and woody vegetation which grow within a city collectively form the urban forest regardless of ownership.

**Veteran Trees –** Traditionally, trees with the same characteristics as given for ancient trees. However, more recently, the term has been expanded to include trees of any age that have features that support wildlife such as splits, cracks, holes and dead wood.

**Wet Woodlands –** Woodland growing on soils subject to seasonal waterlogging often in river valleys and adjacent to watercourses. Common species in wet woodlands include alder, willow, aspen and birch.

**Whips –** Transplanted and bare rooted nursery stock 60 cm to 1.2 m.

**Young Trees –** Recently established trees that have achieved independence in the landscape.