Brighton & Hove City Council

Tree Strategy 9th DRAFT

Brighton & Hove City Council

This Tree Strategy has been produced on behalf of Brighton & Hove City Council with Connick Tree Care

Table of Contents

1 Councillor Foreword

To be completed…

3 Executive Summary

The tree strategy demonstrates the important range of benefits trees play in improving our health, wealth, society and environment. Responders to the 2017 Open Spaces Strategy consultation voted trees as the most important asset within our open spaces. They are arguably one of the most positive subjects which the public are strongly connective to and protective of.

Brighton's Elm tree collection has been living happily alongside the populous for dozens of years and is recognised as a National Collection. The Elms also gave further credence to the international UNESCO designation awarded to Brighton and Lewes Downs in 2016. The strategy seeks to improve the protection of Elm trees and highlight the impact of resources to manage the City's trees.

The importance of Brighton's Elms nationally should not be overlooked, the Royal Forestry Society visit in October 2019 will look at Brighton Elms as a point of keen interest and a recent tweet from @Trevor Beattie, Chief Executive of the SDNPA, expressed concern about our recent loss of trees and Brighton as the last bastion of Elm trees falling.

In short, it should be argued that trees are *perhaps* the most valuable, cost effective and loved asset that the council manages. Trees are valued by most stakeholders and this strategy seeks to provide a range of observations, investigations, and recommendations to support this relationship.

The strategy looks at all aspects of tree management and usefully breaks down each section with the following headings:

- **The Current Situation**
- **Challenges**
- **Recommendations** (for committee and decision makers)
- **Actions** (for council officers and affected parties)

The Headline Current Situation:

A figure of £405,000 of additional investment is needed to meet the minimum requirement to ensure the council can replace felled trees each year and meet the new standards for inspections and works programmes for trees.

Investment is also needed to ensure a proactive approach to tree management is initiated to ensure that both Elm disease, Ash Dieback and any other biosecurity threats are effectively managed.

If the council were to lose control of Elm Disease it would be devastating; resulting in over 70% of the cities mature Elms trees requiring felling, removal and replacement at a cost of over 5 million pounds.

Moreover, this loss doesn't even take into account the further impact such a massive loss of mature trees might have on mitigating flooding, remembering that Brighton is ranked number eight in the country regarding flood risks.

The Primary Recommendations and Actions

Cityparks has already started the process to address the challenges for the Arboricultural Service and are at present:

A) Restructuring both Cityparks and the Arboricultural Service which will result in more staff generally (even if that is by filling currently vacant posts.)

B) Working with related departments such as Housing and Bereavement Services to invest in additional inspection and works programme.

C) Identifying a viable solution to fund the £405,000 income gap which has been identified.

Section 4.8 and Appendix 8 present a case that trees should be a benefactor of the emerging Community Investment Fund which is being developed by the Planning department. Support for this ambition would resolve the resource challenge in a single stroke and would benefit other related departments such as, The Estates Team, City Transport, Bereavement Service, and Housing etc. all of which already invest revenue into managing trees. Therefore a recommendation being proposed is for support of the ambition to use CIL to mitigate the £405,000 shortfall for at least ten years

Almost twenty recommendations are put forward through this document which can be broadly split into four groups:

- The adoption of best practice legal / case law guidance
- The adoption of best practise standards of delivery
- The need to create a clear path for tree enquiries and tree maintenance priorities for efficient management by the council
- An effective way of managing trees under different committee ownership

A full list of the recommendations can be seen below which can also be found through the document.

1. A formal set of best practice tree guides and processes are adopted and distributed amongst the relevant departments and stakeholders. These guides will cover; Tree Enquiry Handling, Tree Inspections, Tree Site Assessments, Consultation and collaboration with other council teams to ensure new trees align with and complement other strategies, plans and workstreams e.g. highway/transport projects, Elm Disease Management, Ash Dieback management, Tree Selection and Planting (open spaces and on street), Tree pruning and root ingress management, Tree Trust Scheme donations and Biosecurity.
2. The Council ring-fence £500,000 annually of Community Infrastructure Fund whilst the details are finalised on the true cost to manage the city's tree stock.*
3. Cityparks should submit a Community Infrastructure Levy proposal for £500,000 to deliver a ten year tree programme for the city which will address the challenges identified by this strategy.
4. Trees are formally supported as an essential part of the urban Infrastructure.*
5. The Council adopts the tree inspections standards set out in Appendix 2, acknowledging the need to identify the investment shortfall required to deliver this initiative.
6. The Council adopts the Capital Asset Value for Amenity Trees pricing system (CAVAT) valuation method, to allow the council to more effectively claim compensation for damaged or lost trees as a result of construction or other activities.
7. The Council adopts the Arboricultural Associations Biosecurity Position Statement and DEFRA's Tree Health Resilience Strategy processes as summarised in Appendix 7.
8. Continue to prioritise a comprehensive programme to manage Elm disease.
9. Limit the percentage of Elms trees across the City to no more than circa 25% by replacing diseased and unsound Elms with other species where sensitive to the landscape value of the

tree population.

10. The Council adopts and implements the recommended process for managing Ash Dieback as outlined in Appendix 3, acknowledging the need to identify the investment shortfall required to deliver this improvement.

11. The Council agrees that all committees sign up to agreed practises for managing Elm Disease and Ash dieback.*

12. The tree list (Appendix 4), is adopted by the Council and stakeholders for specifying trees within the City as the primary selection tool where possible.

13. The Council ensures that all new planting schemes will be designed in line with the principles set out in this Tree Strategy.

14. Vehicular crossovers will not be considered viable if trees or their roots are likely to be adversely affected.

15. The council adopts the National Joint Utilities Group Guidance regarding underground service runs within the rooting area of trees, available at http://streetworks.org.uk/wp-content/uploads/2016/09/V4-Trees-Issue-2-16-11-2007.pdf.
16. The Arboricultural Service to apply for funding for Tree and Woodland grants when possible.

17. Tree Trust Scheme donations and practise should be reviewed.*

18. The emerging Parks Foundation develops a programme to invest in trees.

***Recommendations likely to need approval from other departments such as Planning or Policy Resources and Growth Committees.**

Actions

The tree strategy should remind all stakeholders of the close relationship many communities and individuals have with the cities trees; we should be reminded of their importance and beauty and should seek a comprehensive solution for their future as there are many real and present dangers facing their existence.

This tree strategy has identified the challenges, gaps and potential solutions to make this ambition, to benefit the City's trees, a reality for all.

3.1 Why is a Tree Strategy Required?

This document has come at a time when the City and the Arboricultural Service are facing unprecedented tree and resource challenges. It also occurs in a moment when the public, politicians and much of the wider society recognises trees as being crucial for a 'healthy' City environment.

The successful management of a tree population is by its very nature, a long-term process and this strategy reflects this, emphasising the need for a review in five years. It is also intended to ensure trees gain the recognition and protection they deserve for providing individually and collectively, one of the most visually apparent contributions to the environment.

In addition the City needs a Tree Strategy because…

- Trees are one of the most valued and loved assets managed by the Council.
- Trees are one of the primary assets that can benefit Health, Economy, Society and the Environment.
- The 2017 adopted Open Spaces Strategy required that a 'Tree Strategy' was completed.
- The Open Spaces Strategy also required Cityparks to *'Review the required tree maintenance and inspections needed to ensure we meet our statutory requirements'*.
- There are currently failings in parts of the Arboricultural Service.
- Arboricultural Service links with other related departments need to be improved.
- Respond to staff resourcing challenges within the Arboricultural Service.
- The Council needs to ensure that the City's trees and woodlands are adequately protected and cared for.
- The Council needs to ensure the service meets its statutory obligations to manage a high risk and high value asset.
- Trees were voted by responders to Open Spaces Strategy consultation 2017 as being the most important asset in the City's' Parks & Gardens.
- Tree diseases such as Ash dieback are of national concern and are impacting the City.
- Further delays would likely lead to greater costa and risks for the Council.

3.2 The Importance and Benefits of Trees

Most Council residents and visitors recognise the importance of trees in the city; but there are many other proven benefits of their role in society as listed below:

Table 1: Identifying the benefits trees provide.

Environmental	• Trees remove CO^2 to create a carbon sink. • Trees support wildlife throughout all areas of the City and increase biodiversity. • Trees provide shade within our streets, parks and open spaces to offer protection from the sun. • Trees intercept rainwater helping to prevent localised flooding. • Trees prevent soil erosion.
Health	• Trees provide a positive impact on mental health and wellbeing. • Trees help lower risk of skin cancer by providing shade. • Trees help improve air quality reducing the chances of asthma and other respiratory conditions by removing harmful particles.
Social	• Trees provide a heightened sense of pride in a place. • Provide seasonal interest through their flowers, fruit, autumn colour and dormancy. • Provide an educational resource. • Trees have been credited in United States to have reduced crime in some towns. • The preservation of an Elm collection in the UK
Economic	• The presence of trees can increase property values. • Retail areas with trees perform better. • Urban trees improve the health of local populations, reducing healthcare costs. • They can provide a potential long-term renewable energy resource. • Increase the value of residential properties with tree lined streets by up to 15%. • Increase the desirability of business to locate within a city.

(TDAG, 2010)

In addition to the Environmental, Health, Social and Economic benefits, trees within Brighton & Hove are of historic and national importance. Over 17,000 Elm trees form the National Elm collection granted by Plant Heritage; including 103 different cultivars and veteran specimens exist within the Royal Pavilion and Coronation Gardens.

Key heritage specimens were the 'Preston Twins' at Preston Park, believed to be the largest and oldest surviving English Elms in Europe and those that frame the perimeter of The Level. Sadly, one of the Preston twins has recently succumbed to Elm Disease and will be removed before 2020.

3.3 Trees within the City

The City environment for trees is characterised by coastal exposure, chalk soil and increasing building developments; all taking place on land constrained between the South Downs and the Sea.

The City's tree stock has not been fully mapped out, but a process to audit all trees on Council owned land is in progress. This will provide valuable information to aid the future management of trees.

Council owned trees are spread across the following areas:

- Highways
- Parks and Open Spaces
- Woodlands
- Housing
- Cemeteries
- Education and Social Services

3.4 The Arboricultural Service

Trees within the City are primarily managed by the Councils Arboricultural Service that sits within Cityparks. This department also assists with the management of trees for Bereavement Services and Housing.

Trees also occur within other Council departments such as in Policy and Resources and Education; on third-party land including Railways and Highways (England). At these locations third party contractors undertake the works.

The current Arboricultural service comprises:

- An arboricultural officer in operations responsible for the in-house establishment of ten staff (currently six staff in post).
- A full time arboricultural officer with responsibility for statutory planning functions, including Tree Preservation Orders.
- A part time administrator.

The team's responsibilities include:

1. Maintaining the City's trees.
2. Statutory planning functions, responding to planning enquiries and Tree Preservation Order requests.
3. Responding to all general enquiries and housing department enquiries.
4. Site visits, reporting and advice.
5. Management and monitoring the delivery of tree inspection and maintenance of trees within the public highways, parks, open spaces and bereavement services, using in-house and external contractors.
6. Management and monitoring of the Elm and other tree Diseases.
7. All aspects of tree planting including the Tree Trust scheme.
8. Publicising tree works.

The in-house Arborists are supported by approved term contractors, who undertake physical tree work. External Arboriculturist's and external Highways contractors provide civil engineering works when required on the streetscapes.

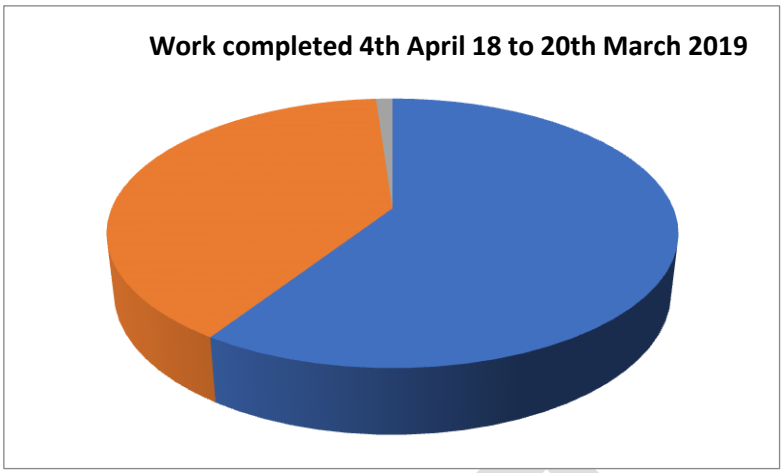


Figure 1: Illustrating percentage of works completed by external contractors in blue on the right is currently more than the in-house team on the left in orange. The small grey slither in the middle on the top reflects works on highways.

4 Tree Management

4.1 Tree Enquiries

The Current Situation

- The Arboricultural Service responds to in-excess of 200 internal and external enquiries every week.
- The Arboriculture Officer prioritises work according to level of risk and whether or not the tree is located on Cityparks, Housing or Bereavement Services land.
- The Council ensures the trees within Brighton and Hove are maintained through a number of policies, process and procedures; see Appendix 1.
- The Arboricultural Service work closely with the Housing, Cityparks, and Cityclean Contact Centres who each have their own customer service recording processes which are being updated over the next 18 months (2019-2021).

Challenges

1. Stakeholders are not receiving an effective or efficient service from the Arboricultural Service due to resource challenges and undeveloped processes.

Actions

A. Overhaul of the Arboricultural Service administrative systems led by the future Administrative Team Leader working with related departments (appointment due October 2019).

4.2 Tree Inspections

The Current Situation

Street trees are typically inspected at four-yearly intervals but this could be shorter or longer depending on resources and site conditions. Inspections are undertaken and recorded by arboriculturists primarily to identify defects or hazards that present a risk. These are then recorded on the Council's tree asset management system (ARBORtrack).

Where necessary, the inspectors will prescribe the appropriate tree works to reduce the risk. They will also seek to rectify any actionable issues and programme any routine maintenance. Some tree problems may necessitate the implementation of a more frequent inspection regime or require a further aerial inspection undertaken by staff climbing the tree and/or more examination using decay detection equipment.

Trees within parks, open spaces, housing and cemeteries are currently being inspected more comprehensively as from late 2018, this work should be completed across the entire city by 2021 due to additional funding being identified. Works identified from these inspections is split between urgent works that are undertaken immediately and programmed works that should be completed within an allotted time frame.

Performance and Resources department manage their Woodland and Estates land with four yearly inspections using external contractors. Educational institutes manage their facilities independently from the Arboricultural Service; their frequency will vary.

Challenges

- Recent legal findings have concluded that more frequent inspections should be utilised for high risk areas such as street trees. This would result in BHCC needing to double their rate of inspections in some areas, totalling approximately £95,000 per annum. See appendix 2
- Current budgets do not allow for the amount of work that is needed to meet the emerging best practice standards.
- The Arboricultural Service is behind on its current workload and is unlikely to catch up without additional staff resources.
- Procuring staff to Arboriculturist (Tree Surgeon) role is difficult as the council's current salaries are lower than the market rate.
- The programmed list of works is lagging behind meaning some elements are moving into the urgent category from a previously timetabled status.

Recommendations

1. **The Council adopts the tree inspections standards set out in Appendix 2, acknowledging the need to identify the investment shortfall required to deliver this initiative.**

Actions

A. Ensure best practice standards are distributed through corporate health and safety to all relevant departments.

4.3 Tree Pruning and Felling Works

The Current Situation

The Council currently undertakes a mixture of both proactive and re-active works upon its tree stock. The works are as a result of either routine management or following ad-hoc inspection in response to an enquiry.

The Council tries to adopt a minimal intervention approach to tree management. There is an inherent weakness once trees are pruned within the re-growth, which has a greater propensity of branch failure or collapse in the future. Pruning work is carried out typically over a four-year cyclical programme following the routine tree surveys but this time frame could be shorter or longer depending on resources and site conditions.

4.3.1 Tree Removal

The Council's key principle is to protect and retain existing street trees and will not remove trees without careful consideration. Trees will only be removed where:

- It poses a potential risk of injury or damage and the problem cannot be remedied by pruning or suitable engineering solutions.
- It is causing an obstruction to the Highway and Highway Footpaths and the problem cannot be remedied by pruning or suitable engineering solutions.
- It is proven to be the cause of structural damage.
- The loss will be advantageous to the tree stock and in accordance with good arboricultural practice e.g. to limit the spread of disease.
- An agreed senior management or Councillor decisions, e.g. through a planning decisions.

4.3.2 Inappropriate Tree Work Operations

The Council will not normally carry out tree works which may result in unnecessary damage to trees and will normally refuse works if requested for the following reasons:

- Interference with television/satellite signals and private CCTV operations.
- Shade prevention.
- Seasonal nuisances such as flower, seed or fruit fall.
- Residents' perception that a tree is too large.
- Obstruction of a view or light.
- Branches are overhanging a neighbour's garden.
- Prevention of animal and insect droppings or squirrel access.

Note: Third parties are not permitted to access Council land in order to carry out works to trees that are within its control.

4.3.3 Root Ingress

The Council conducts site visits to assess root ingress and can conduct remedial pruning of the roots to enable the tree to remain in situ on Highways footways.

The Council is unable to prevent ingress of roots to adjacent gardens and will not therefore undertake root removal where this has occurred.

The Council will not accept responsibility for tree roots that have gained access to drains or services if those services are in disrepair.

Challenges

- Not meeting time schedules specified to stakeholders for tree works due to limited resources.
- There are inconsistencies in departments understanding of tree works and processes.
- The public and other stakeholders have limited guidance about tree practices and policies.

Recommendations

1. **A formal set of best practice tree guides and processes are adopted and distributed amongst the relevant departments and stakeholders. These guides will cover; Tree Enquiry Handling, Tree Inspections, Tree Site Assessments, Consultation and collaboration with other council teams to ensure new trees align with and complement other strategies, plans and workstreams e.g. highway/transport projects, Elm Disease Management, Ash Dieback management, Tree Selection and Planting (open spaces and on street), Tree pruning and root ingress management, Tree Trust Scheme donations and Biosecurity.**

Action

a) The Arboricultural Service to investigate if other departments such as Education and Policy and Resource services can mirror and adopt the emerging best practice guidance.

4.4 Managing Pests and Diseases

4.4.1 Biosecurity

The Current Situation

To ensure a healthy and sustained tree stock within the City, the Arboricultural Service will take appropriate measures to prevent or reduce the introduction and spread of harmful organisms.

The arboriculture officers keep abreast of emerging threats and manage existing ones.

Challenges

- An overarching strategy for Biosecurity, Pest and Disease is needed to safeguard the City's tree stock.
- There are still a number of risks regarding Biosecurity that need to be addressed such as sourcing non-diseased new tree stock and the timely removal of Elm diseased wood by third parties.
- We are missing opportunities to utilise the public or third parties in identifying pest and diseases.

Recommendation

1. **The Council adopts the Arboricultural Associations Biosecurity Position Statement and DEFRA's Tree Health Resilience Strategy processes as summarised in Appendix 7.**

Action

A. Encourage Land owners and the public to record any notifiable or recent pest or disease identified using the Tree-Alert app or website which can be found at https://www.forestresearch.gov.uk/tools-and-resources/tree-alert

4.4.2 Elm Disease

Elm Disease is a serious disease of Elms caused by the fungus *Ophiostoma novo-ulmi*. It is a type of disease known as a vascular wilt because the fungus blocks the vascular (water transport) system, causing the branches to wilt and die. It is spread by elm bark beetles. Damage is usually seen in summer and early autumn.

You may see the following symptoms:

- At any time in the summer months, all or part of the foliage suddenly turns yellow, then wilts, shrivels and dies
- Peeling off the bark from affected branches will reveal brown streaks in the outer wood, which appear as a broken or continuous brown ring in the outer growth ring if the branch is cut across.

<u>The Current Situation</u>

The Council proactively manages the control of Elm Disease. The Arboricultural Service currently undertakes Elm Disease spotting during June-September. If Elm Disease is detected the infected tree will be removed as soon as practicable and the dead wood is then taken to a burn-site to prevent the infestation of the beetles that carry the disease from inhabiting and breeding in the old bark. This process is known as 'sanitation'.

The Councils' current practise for Elm management is something to be proud of and is replicated by Edinburgh City Council who has managed and retains 15,000 Elm trees.

<u>Challenges</u>

- The Arboricultural Service resources are limited so they are continually challenged to maintain best practice for the management of Elm Disease.
- The growing work load has resulted in work slipping behind schedule which means that any less than optimum response to disease continues to pose a threat to Elm's within the city.
- The ineffective control of third parties infected logs is a significant concern for the Service.
- The city is losing dozens of Elm trees each year, with 2019 looking particularly bad for the Disease.
- The priority to manage Elm disease means other works cannot go forward across the city.
- **If the city lost control of Elm disease this could result in around 80% of Elms needing to be removed. This could result in Elms being felled at the cost of over £5,000,000. The final bill would also need to include: pavement and highways works, additional tree removal and replanting. The final management and replacement bill could conservatively exceed £10,000,000.**

Recommendations

1. **Limit the percentage of Elms trees across the City to no more than circa 25% by replacing diseased and unsound Elms with other species where sensitive to the landscape value of the tree population.**
2. **The Council agrees that all committees should sign up to agreed practises for managing Elm Disease.**

Action

A. Proactively invest in the Arboriculture Service as an efficiency measure which would provide the most robust strategy to keep Elm Disease under control.

4.4.3 Ash Dieback

Ash dieback affects Ash trees and is caused by a fungus. It blocks the water transport systems in trees causing leaf loss, lesions in the wood and on the bark and ultimately the dieback of the crown of the tree.

The Current Situation

At present the Council like many local authorities are only monitoring the ash dieback threat.

Challenges

Ash dieback has the potential to cause significant damage to the UK's ash population, with implications for woodland biodiversity and ecology, and for the hardwood industries. Experience indicates that it can kill young and coppiced ash trees quite quickly. However, older trees can resist it for some time until prolonged exposure, or another pest or pathogen eventually causes them to succumb. Ash is one of our most useful and versatile native tree species, providing valuable habitat for a wide range of dependent species. It can grow in a variety of soils and climatic conditions. The 'airy' nature of its foliage allows light to penetrate to the woodland floor, encouraging ground plants and fauna. A number of insects, other invertebrates, lichens and mosses depend wholly on ash for habitat.' Text and image above linked from www.forestresearch.gov.uk

- **An estimated 75% of street trees and 50% of Woodland Ash trees will need to be removed from the city costing around £1,500,000 over ten years. See Appendix 3.**
- Ash Dieback is an emerging threat to the City's Ash population. It is most noticeable along the road over the Downs to Ditchling and along the A27, it is also prevalent in many of the small woodland areas and at Stanmer Estate Woods.
- Approximately 25% (125 hectares), of the city's 500 hectares of woodlands are believed to be Ash trees.
- At present the council has no formal process to manage Ash Dieback.

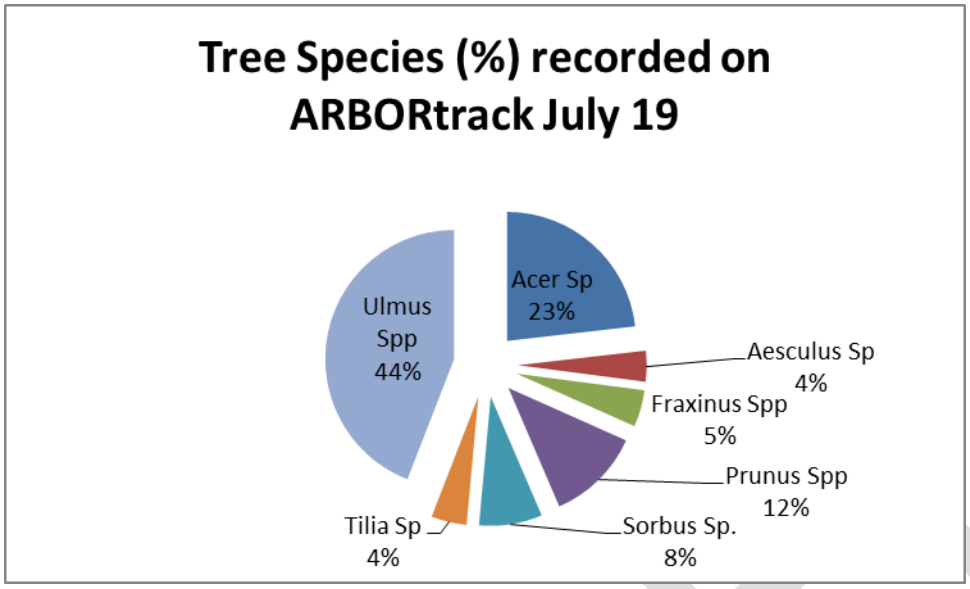
Recommendations

1. **The Council adopts and implements the recommended process for managing Ash Dieback as outlined in Appendix 3, acknowledging the need to identify the investment shortfall required to deliver this improvement.**
2. **The Council agrees that all committees sign up to agreed practises for managing Elm Disease and Ash dieback.**
3. **The emerging Parks Foundation develops a programme to invest in trees.**

4.5 Tree Selection and Planting

The Current Situation

The current tree stock, (excluding woodland) within Brighton and Hove is heavily dependent upon Elms (Ulmaceae), Maples, including Sycamore (Acer) and Cherry (Prunus).



In general new trees are planted from the West to the East of the City utilising the annual planting budget of £15,000.

There are two tree donation schemes running within the Council: the first Donation is run by Bereavement Services and the second is a Tree Trust scheme run by Cityparks. These enable a member of the public to donate and have a dedicated tree planted in the city.

The car parking team are receiving trees for planting, in response parking machines being removed. At present over 150 trees are to be donated to the city as part of this programme.

The 'Plant your Postcode' scheme launched July 2019, funded by Campaign for Rural England (CPRE) local business and public seeking to work with local communities to plant trees.

Challenges

- **Approximately an additional 100 trees should be planted in hard and soft landscapes each year, which would cost on average £2000 each (£200,000 annually).**
- Only 40-60 % of trees lost in 2017 and 2018 were replaced, see figure 1 below.
- The City is too reliant on the Elms which represent around 40% of all mature tree stock.
- Many of the Elm Trees are over 100 years old which means that a significant number may be lost over a short period of time as they become older and weakened.
- The on-going net loss of trees and the tree canopy will eventually have a negative impact on the city's health, wealth, society and environment if not reversed.

Figure 2: Showing Comparison between Trees Removed, and Trees Planted in 2017 and 2018

Recommendations

1. **Limit the percentage of Elms in its tree stock to no more than around 25% of all trees so that the city's tree population is more resilient.**
2. **The tree list (Appendix 4), is adopted by the Council and stakeholders for specifying trees within the City as the primary selection tool where possible.**
3. **Cityparks should submit a Community Infrastructure Levy proposal for £500,000 to deliver a ten year tree programme for the city which will address the challenges identified by this strategy.**

Actions

A. The Council will encourage local support for tree planting within its parks and open spaces through its Tree Trust Scheme.
B. All relevant internal and external stakeholders to adopt and utilise the plant list.

4.5.1 Tree Pit Assessments

The Current Situation

Empty tree pits and trees removed are recorded on ARBORtrack and give an indication of where new street trees could be accommodated.

Tree sites are assessed by the Arboriculture Team Leader and trees are ordered and replaced where required.

Tree replacement also occurs on an ad-hoc basis through the Tree Trust fund or to commemorate a significant event.

Challenges

- Staff resources are not available to assess existing or proposed tree pits.
- There isn't a consistent tree pit assessment for trees planted across the city.
- New tree pits tend to be in open spaces and sites rather than in locations where there may be stump removal, utilities, engineering work and other costs which are not covered by the basic costs for tree planting.

Recommendations

1. **A formal set of best practice tree guides and processes are adopted and distributed amongst the relevant departments and stakeholders. These guides will cover; Tree Enquiry Handling, Tree Inspections, Tree Site Assessments, Consultation and collaboration with other council teams to ensure new trees align with and complement other strategies, plans and workstreams e.g. highway/transport projects, Elm Disease Management, Ash Dieback management, Tree Selection and Planting (open spaces and on street), Tree pruning and root ingress management, Tree Trust Scheme donations and Biosecurity.**

4.5.2 Tree Planting

The Current Situation

New tree planting can be done by the Arboriculture Service or external contractors. Tree pit specifications vary considerably across the city. Tree planting costs can very between £300 and £5000 depending on the location and civil engineering issues.

Challenges

- Situations have occurred where tree planting has impinged on the highway or conflicts with other trees or buildings.
- Vacant tree pits or those containing stumps are located across the City with an uncertain future as a visual eyesore and potential hazard.
- There is currently no comprehensive programme to address all the cities tree stumps which may be the best locations for future street trees.
- There is a backlog of replacement planting because of the significant cost of replanting in Highways where stump removal and other kerb and pavement works are required.
- Staff resource issue where each site has to be assessed individually and follow up work is required to prepare the tree pit.
- There is a need for adoption of planting specifications and requirements in different locations to be agreed by City Transport and Cityparks. See Appendix 5
- New highways recommendations are that all trees will be located with enough space that their crowns do not over hang the public carriageway at the time of planting and their trunk should be a minimum of 300mm away from the rear carriageway kerb edge at maturity. In this case there would be very few street trees replaced because the Highway footpaths tend to be much narrower than this would allow. Alternatively there could be other considerations taken into account to accommodate trees, for example;
  1. A requirement for a build out to enable retention of accessible footpath is likely to incur costly engineering for street trees.
  2. The loss of income from parking revenue due to the loss of car parking.
  3. A reduction in larger species trees being planted where pollution is most problematic.

Recommendation

1. **The Council ring-fence £500,000 annually of Community Infrastructure Fund whilst the details are finalised on the true cost to manage the city's tree stock.**
2. **The tree list (Appendix 4), is adopted by the Council and stakeholders for specifying trees within the City as the primary selection tool where possible.**
3. **The Council ensures that all new planting schemes will be designed in line with the principles set out in this Tree Strategy**
4. **Trees are formally supported as an essential part of the urban Infrastructure.**

4.6 Privately Owned Trees

4.6.1 Protection of Privately-Owned Trees

The Current Situation

4.6.2 Conservation Areas

Many of Brighton and Hove's private trees are protected by law under the Town and Country Planning Act. Tree owners within the City's Conservation Areas are required by law to give the Council six weeks notification should they wish to remove or prune any part of a tree (including roots).

4.6.3 Tree Preservation Orders

Under the same legislation the Council also has the power to protect trees which are of particular amenity value by serving a Tree Preservation Order (TPO). They can be used to protect any tree but are mostly used for trees on private land. The order requires the permission from the Planning Authority prior to undertaking tree removal or pruning of any live part of the tree (including roots).

Anyone wishing to remove or undertake pruning works to a tree protected by a TPO is required to make a formal application to the Planning Department using the appropriate form. Once the application has been registered, the Council's Arboricultural Service will assess the proposal and provide recommendations to the Planning Department. The Planning administration and any enquiries are managed by the Arboricultural Service and the decision notice detailing the outcome of the process is normally issued within 8 weeks.

In the UK trees that are pruned or removed without prior consent from the Council could lead to a fine of up to £20,000 plus cost as seen in at this link https://www.bbc.co.uk/news/uk-england-dorset-20466753.

Further information on conservation areas and tree preservation orders can be found on the Council's website https://www.brighton-hove.gov.uk/content/leisure-and-libraries/parks-and-green-spaces/tree-preservation-orders.

4.6.4 Works to Privately-Owned Trees /Hedges

The Council is unable to assist in civil disputes regarding privately owned trees and will only become involved with High Hedges disputes upon receipt of a complaint that conforms to the requirements outlined within the guidance provided on our website and the appropriate fee.
https://www.brighton-hove.gov.uk/content/leisure-and-libraries/parks-and-green-spaces/tree-preservation-orders

4.7 Trees and Developments

The Current Situation

Where developments are likely to result in any impact upon protected trees or trees located within Cityparks maintained land, the Arboricultural Service are consulted by the Planning department at the pre-application stage and prior to any approval being given for the development.

The Council's Arboricultural Service is sometimes consulted on developments resulting in the adoption of Highways or land to be used for public recreation at public expense. Tree planting schemes including species selection and design should be approved and commuted sums for future management agreed.

Challenges

- Not all development proposals are conveyed to the Arboricultural Service.
- Insufficient resources to monitor development work allowing trees to be damage.
- Loss or damage to public trees with no compensation to fund replacements.
- New schemes being adopted where new planting results in high management costs.
- Limited guidance regarding the impact of utilities on trees.
- The implementation of underground utilities may damage the roots of existing trees.
- Unknown cost to resources.

Recommendations

1. **The Council adopts the Capital Asset Value for Amenity Trees pricing system (CAVAT) valuation method, to allow the council to more effectively claim compensation for damaged or lost trees as a result of construction or other activities.**

2. **The council adopts the National Joint Utilities Group Guidance regarding underground service runs within the rooting area of trees, available at http://streetworks.org.uk/wp-content/uploads/2016/09/V4-Trees-Issue-2-16-11-2007.pdf.**

4.7.1 Vehicular Crossovers

The Current Situation

Where trees are potentially impacted by vehicle cross over applications, the highways inspectors consult with the Arboricultural Service following payment by the applicant. The Arboricultural Service will then assess the amenity value of the tree.

A site visit is undertaken to decide the impact on the tree. In some cases trees can be relocated if feasible. When relocation occurs the costs would also be borne out by the applicant.

Challenges

- Vehicular Crossovers within the City can result in damage to street trees if they are not managed or assessed effectively.
- The Councils Current Driveways and Drop kerb guidance allows for intervention as close as one meter to the tree which could still be very detrimental depending on the tree roots and the construction.

Recommendation

1. **Vehicular crossovers will only be considered viable if trees or their roots are unlikely to be adversely affected.**

Actions

A. The council's driveways and drop kerbs guidance is reviewed and updated by the Arboriculture service with the planning department.

4.8 Funding

4.8.1 Core funding

The Current Situation

The Council spends around £700,000 each year to manage the city's trees. Utilising external contractors with the internal workforce allows flexibility in the summer months when there is less work. A small amount of income is generated from donations for trees but this rarely covers the full cost of installation except when they are planted in grass areas. Recently the Environment Transport and Sustainability committee agreed to fund Cityparks proposals to spend an additional £500,000 on tree related works. A further £50,000 was secured for tree planting through section 106 money. 150 trees have also been donated for planting through the carbon saving scheme linked to the removal of car parking meters from the streetscape.

Challenges

- The Council is at critical point in the life of the city's trees and a number of important tree related reports have already been completed which will need resources to monitor and implement, which Include: The Open Spaces Strategy (2017), Annual tree inspection report (on-going), The Stanmer Woodland Management Plan (2018).
- Elm and Ash diseases will both require resources to keep the public safe.
- New funding will be needed following the inspections report to implement the works.
- Additional money will need to be found to reverse the net loss of tree planting in the city.
- In short there will be a gap in funding available to address the trees challenges identified in this Strategy.

The following table compile the varying funding gaps identified in this strategy:

No.	Currently unfunded Tree Costs	Estimated annual cost for the next ten years to address challenge.
1.	Maintaining the current tree stock numbers based on 2017/2018	£200,000 (replanting 100 trees in parks and streets approximately £2,000 each)
2.	Tree inspections	£40,000 (see appendix 2 and item number 6 below)
3.	Ash street tree replacement (based on £2,000/tree replacement see appendix 3)	£55,000 (see appendix 2)
4.	Ash Dieback management excluding street trees	£110,000 (see appendix 3)
	Estimated Total Unfunded	**£405,000**
5.	Civil engineering repairs around trees	£150,000 (set aside budget minimum cost)
6.	Current inspection investment	£45,000 (Current estimated inspections being undertaken by internal and external Arboricultural staff.)
7.	Responsive Tree pruning/felling	£620,000 (Within existing budgets)

*It is anticipated that `Ash dieback will only occur for limited amount of years as opposed to annually as the Ash trees would be permanently lost.

The table below shows the available funding in black to deal with this shortfall and possible future funding streams. The words in red italics reflect shortfalls in funding and the green 2021 column alludes to the potential to be fully funded.

It should be noted that inspections works are essential; maintaining tree planting numbers can be increased in later years although if left too long planting spaces will be lost in streets. Ash Dieback could be delayed by a year or two with limited issues. An improved inspection regime is likely to result in higher maintenance costs and a probable peak initially which would then tail off but costs are currently unknown.

No.	Current unfunded or partially funded Tree Costs	2019	2020	2021
1.	Maintaining the current tree stock numbers based on 2017/2018	£200,000 funding already agreed by ETS from underspend provision	*£200,000* This could be addressed in the 2020 budget setting process	£200,000
2.	Tree inspections	This is being covered from within existing budgets within Cityparks	This is being covered from within existing budgets within Cityparks	Options would be either to make permanent changes to budget allocation which would impact on the area losing the budget or also seek Community Infrastructure Level funding
3.	Ash street tree replacement (based on £2,000/tree replacement see appendix 3)	*£55,000*	*£55,000* *Removal costs will have to be addressed in the 2020 budget setting process and replanting could be addressed*	£55,000
4.	Ash Dieback management at 50% tree loss*	*£110,000* £30,000 has be allocated towards this cost and will deal with all immediate problems	*£110,000* *This will have to be addressed in the 2020 budget setting process*	£110,000
	Estimated Total Unfunded	***£165,000***	***£365,000***	**£365,000**
No.		**2019**	**2020**	**2021**

In 2021 the Council is due to introduce the community Infrastructure Levy [CIL] ,as set out in Appendix 8; trees meet many of the criteria for the funding and depending on future decisions on allocation of CIL, it could be used to deal with part or all of this budget pressure.

Recommendations

1. **The Council ring-fence £500,000 annually of Community Infrastructure Fund whilst the details are finalised on the true cost to manage the city's tree stock.**
2. **Cityparks should submit a Community Infrastructure Levy proposal for £500,000 to deliver a ten year tree programme for the city which will address the challenges identified by this strategy.**
3. **The emerging Parks Foundation develops a programme to invest in trees.**

4.8.2 Tree Donation Scheme

The Current Situation

The Tree Trust Scheme is a resource which allows the local communtiy and individaul residents to sponsor tree planting. The scheme currently only allows for trees to be planted within public parks and a fee of £319.00 is required.

The cost of planting a tree will vary depending on the species and size choosen. A number of trees such as Elm, Oak, and Yew can live to over 100 years old. A typical elm tree in a street costs about £8,500 to maintain assuming it lives to around 70 years old.

Challenges

- Given the potential high cost for planting trees in streets and the long term maintenance, the Council should review the contribution from the public or businesses.
- The cost of £319.00 does not fully cover the cost to plant a tree in hard landscaping areas.
- Cityparks are potentially missing oportunities to raise more investment from tree donations for trees.
- The cost of replacing larger trees in the streetscape is very variable but it is not unusual to spend £4000 to replant, as the footway and carriageway often need extensive reparing.

Recommendation

1. **Tree Trust Scheme donations and practise should be reviewed.**

Actions

A. Work with Bereavement Services to develop a more consistent approach so it is easier for the public to access and navigate the services.

********** End of Main Document **********

5 References

Arboricultural Association, 2018. Guidance Note 2, Application of Biosecurity in Arboricultural. Available at: https://www.trees.org.uk/Help-Advice/Biosecurity-Guidance.

Brighton and Hove City Council, 2017. Open Space Strategy. Available at: https://www.brighton-hove.gov.uk/sites/brighton-hove.gov.uk/files/2017%20FINAL%20Approved.pdf

Brighton and Hove City Council, 2009. A Green Network for Brighton and Hove Final Report (2009)https://www.brighton-hove.gov.uk/sites/brighton-hove.gov.uk/files/downloads/ldf/Green_Network_for_Brighton__Hove_final_report.pdf

BSI, 2014. British Standard 8545:2014 Trees: from nursery to independence in the landscape. Recommendations.

BSI, 2012. British Standard 5837:2012 'Trees in Relation to Design, Demolition & Construction - Recommendations'

BSI, 2010. BS 3998:2010 Tree work. Recommendations.

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

Forestry Commission, 2018. Operations Note 046, Managing ash (Fraxinus excelsior) in woodlands in light of ash dieback (Hymenoscyphus fraxineus). Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/741800/ON046.pdf

National Tree Safety Group, 2011. Common sense risk management of trees, Guidance on trees and public safety in the UK for owners, managers and advisers. Available at http://ntsgroup.org.uk/

Street Works UK (National Joint Utilities Group) Volume 4: Street Works UK Guidelines for The Planning, Installation and Maintenance of Utility Apparatus in Proximity to Trees (Issue 2). Available at http://streetworks.org.uk/wp-content/uploads/2016/09/V4-Trees-Issue-2-16-11-2007.pdf.

Tree Design Action Group, 2010. No Trees, No Future. Available at: http://www.tdag.org.uk/no-trees-no-future.html

Tree Design Action Group, 2014. Trees in Hard Landscapes A Guide for Delivery. Available at: http://www.tdag.org.uk/trees-in-hard-landscapes.html

Tree Design Action Group, 2019. Tree Species Selection for Green Infrastructure: A Guide for Specifiers. Available at: http://www.tdag.org.uk/species-selection-for-green-infrastructure.html

UK Roads Liaison Group, 2016. Well-managed highway infrastructure, A Code of Practise. Available at http://www.ukroadsliaisongroup.org/en/guidance/codes-of-practice.cfm

Appendices

Appendix I

Our Statutory Obligations

The Council are obliged to manage the trees in its responsibility within a reasonable and appropriate manner under statutory obligations which principally are the Highways Act 1980 and the Occupiers Liability Acts 1957 and 1984.

Contractors working within the City must operate to the guidance set out within The New Roads and Street Work Act 1991; Health and Safety at Work Act 1974 and the Wildlife and Countryside Act 1981.

The Town and Country Planning Act 1990 places a duty upon the Council to assess the impact of tree loss within the City; where the loss is likely to have a significant impact upon the local and wider landscape, the Local Authority must consider protecting trees through the Tree Preservation Order process.

The Council fulfils their responsibilities by employing professional Arboriculturists, who are suitably qualified and experienced in the delivery of statue and policy relating to Arboricultural Management.

Overarching Policies

This strategy has been created following a review of national, regional and local policy. The review has enabled a greater understanding of the overarching policy framework, and relevant policy areas have been captured in this strategy. The key policy documents are identified below:

This policy links to overreaching National, Regional and Local policies including:

- The National Planning Policy Framework
- The Town and Country Planning Act 1990
- Brighton and Hove Public Realm Strategy
- The South Downs Local Plan
- The Council's Open Space Strategy (2017)
- The Council's City Plan Part 1 and Part 2 and adopted supplementary documents
- A Green Network for Brighton and Hove Final Report (2009)
- Biosphere Management Strategy 2014-2019

Appendix 2

Tree Inspection Process and Frequency Guidance

Introduction

The Council is required to ensure all trees within its responsibility are maintained in a reasonable manner, ensuring it meets its statutory requirements. To meet this a pragmatic approach to surveying its tree stock is essential. This document sets out the approach the Council will undertake to do this.

Implementation

The Council will fulfil its responsibilities by employing suitably qualified arboricultural officers to deliver the statue requirements and polices relating to Arboricultural Management.

The Council will meet its requirement to manage the trees within their responsibility by undertaking more rigorous best practice standards for routine tree inspections. The frequency of inspections would in some instances double from our current rate which would require additional resources.

No.	Tree Location	Current Frequency	Future Frequency
1.	Major **strategic roads** and locally important roads or pathways	4 Years	2 Years
2.	**Minor roads**, including residential,	4 Years	4 Years unless large mature trees identified within high occupancy areas have been identified. Then the frequencies for those trees are every 2 years.
3.	All **Parks** trees within falling distance of major highways.	Ad-Hoc reactive	2 Years
4.	All **Parks** trees within falling distance of constructed footways, access roads or built structures (owned and third party) within parks	Ad-Hoc reactive	4 Years unless large mature trees identified within high occupancy areas have been identified. Then the frequencies for those trees are every 2 years.
5.	All remaining **Parks** areas	Ad-Hoc reactive	4 Years unless large mature trees identified within high occupancy risk areas have been identified. Then the frequencies for those trees are every 2 years.
6.	**Housing, Cemeteries, Allotments**	Ad-Hoc reactive	4 Years unless large mature trees identified within high occupancy risk areas have been identified. Then the frequencies for those trees are every 2 years.
7.	**Policy and Resources**	5 Years	4 Years unless large mature trees identified within high occupancy risk areas have been identified. Then the frequencies for those trees are every 2 years.

Highway tree inspections will include all trees within, and in falling distance, of the highway in line with the guidance set out in the UK Road Liaison Groups Well-Managed Highway Infrastructure.

The future survey frequencies are based on the principles of the National Tree Safety Group guidance "Common sense risk management of trees". This system aims to be both clear and manageable.

Tree Works Funding Programme

Tree Works	Current costs	2019/2020	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026
Tree Works	620,500	620,500	620,500	620,500	620,500	620,500	620,500	620,500
Planning advice	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000
Central costs	59,000	59,000	59,000	59,000	59,000	59,000	59,000	59,000
Tree Inspection Programme								
Strategic & important roads		24,750	24,750	24,750	24,750	24,750	24,750	24,750
Minor roads		1,125	1,125	1,125	1,125	1,125	1,125	1,125
Parks near paths or structures		3,750	3,750	3,750	3,750	3,750	3,750	3,750
Parks (other)		26,250	26,250	26,250	26,250	26,250	26,250	26,250
Schools		3,000	3,000	3,000	3,000	3,000	3,000	3,000
Bereavement		1,000	1,000	1,000	1,000	1,000	1,000	1,000
Housing and other clients		12,000	12,000	12,000	12,000	12,000	12,000	12,000
Disease inspections (DED and AD)		24,000	24,000	24,000	24,000	24,000	24,000	24,000
Total Inspection Cost		**95,875**	**95,875**	**95,875**	**95,875**	**95,875**	**95,875**	**95,875**
Ash Dieback Removal								
Street removal		17,000	17,000	17,000	17,000	17,000	17,000	17,000
Woodland removal		93,750	93,750	93,750	93,750	93,750	93,750	93,750
Wider Maintenance Programmes								
Map trees/licencing of Arbortrack	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500
Street Planting		44,000	44,000	44,000	44,000	44,000	44,000	44,000
Parks Planting		38,600	38,600	38,600	38,600	38,600	38,600	38,600
Planting (woodlands)		10,000	10,000	10,000	10,000	10,000	10,000	10,000
Annual cost (£)	722,000	1,117,100	**1,021,225**	**1,021,225**	**1,021,225**	**1,021,225**	**1,021,225**	**1,021,225**

Tree Works Notes

- Arboricultural budget is for maintenance and a planning function plus central costs
- Assuming 14,500 strategic highways & 1,500 minor roads trees
- Assuming 5,000 parks near paths structures & 35,000 within open grounds
- Disease inspection based on 80 days at £300.00 a day
- Based on 10 year removal programme at 75% loss. In woodlands these figures are based on only 50% of those trees dying requiring removal.
- Inspection costs at £3 per tree (ash dieback - street)
- Based on 10 year removal programme at 75% loss
- Planting costs @ £440.67 per tree for streets and £380.60 for soft landscaping.
- Planting costs @ £20/tree (woodland)
- Based on 17,000 elm trees

The surveys will be undertaken through a rotation of areas which have been organised by wards (see figure 2 below).

Figure 3: Showing Area break down by wards.

Inspection methodology.

1. All trees over 100mm in stem diameter measured at 1.5m above ground level or greater than 4m in height will be surveyed. Where trees form obvious woodland areas or dense groups they will be treated as such and assessed as whole. Any individual tree identified as defective and requiring works within a Woodland or Group will be identified individually.
2. Woodland areas will be surveyed and split into easy identifiable compartments defined by existing features such as footpaths or characteristics. If already under a Woodland Management Plan use the compartments already identified. Special attention is to be given to areas around site entrances, adjacent to property, boundaries, roads, footways or PROW's and seating.
3. The inspections will be carried out from ground level using the Visual Tree Assessment (VTA) method (Mattheck, C and Breloer, H, 1994) examining the external features of each individual tree.

4. Newly planted trees or trees smaller than 150mmin diameter or shorter than 4m in height, will only be identified where they are individual stands.
5. All trees identified will be marked using metal tree tags/paint where appropriate to allow for identification.
6. All trees will have an appropriate re-inspection frequency assigned to it.
7. All tree data will be recorded using the Councils ARBORtrack tree management software.

Recording

All tree surveys/inspections will be recorded within the Council tree asset management system ARBORtrack.

Appendix 3

Ash Dieback

In 2013 Ash Dieback Disease was identified within the wider environment, this disease is caused by the fungus *Hymenoscyphus fraxineus* and leads to leaf loss, crown dieback and bark lesions in affected trees. Once a tree is infected the disease is usually fatal, either directly, or indirectly.

An assessment of Ash trees within the City using accessible data has identified:

- There are approximately 354 Ash trees located within the City streets (ARBORtrack).
- Ash-dominated woodland covers approximately 25% of Stanmer Park woodland (Stanmer Park FC approved Woodland Management Plan 2016).
- The Woodland Trust Ancient Tree Inventory lists 2 ancient, veteran or notable Ash trees within the City.

The environmental implications of hazard and disease management must be considered in relation to the need to conserve biodiversity in the deadwood fauna and flora. All management works need to be a reasonable balance between the need for tree safety and the encouragement of biodiversity.

Predictions of the exact figure of how many Ash trees will be lost to this disease vary and it will be hard to predict due to the possibility of some genetic resilience. However, it is widely believed that up to 75% of all Ash within the UK could be lost within 5 to 10 years. As a result, the cost of Ash Die Back to the City in relation to monetary, ecological and tree cover values will be significant, particularly within our woodland areas. As such a balanced and appropriate approach to the management of Ash Dieback is required.

Table 1 below outlines approximate costs the Council could be responsible for within the next 5 to 10 years in dealing with the removal of Ash Dieback within the City.

Table 1: Showing costs related to tree removal within the City.

Cost of Ash Street Tree Removal			Cost of Ash Woodland Removal		
Loss in %	Approximate number of trees	Approximate Costs	Loss in %	Woodland area in Hectare's	Approximate Costs
25%	88	£56,264	25%	31.25	£625,000
50%	**177**	**£112,529**	**50%**	**64.5**	**£1,290,000**
75%	**265**	**£168,794**	**75%**	**93.75**	**£1,875,000**
100%	354	£225,059	100%	125	£2,500,000

Costs based on an average cost to fell a tree and grind to 600mm below ground level.

Costs based on previous large-scale Elm sanitisation works.

The Council's Arboricultural Service will monitor for Ash Dieback as part of the cyclical inspection regimes and during the seasonal inspection for signs of Elm Disease and record the findings on ARBORtrack. Where Ash Dieback is identified in open grown trees located within streets, parks and open spaces, cemeteries or housing the trees will be managed in line with national guidance and best practice principals which include:

- Retain to facilitate possible long-term adaptation of Ash populations by identifying potential tolerant variations.
- Allow more time for replacement tree species to grow, to give a more gradual transition of dominant landscape species.

- Minimise the impacts on associated species and wider biodiversity.
- Only undertake works where they are required for reasons of health and safety.

Where Ash Dieback is identified within Council responsible woodlands, there will be a minimal intervention approach to the management in line with the best practices set out in the Forestry Commissions Operations Note 046 Managing Ash in Woodlands in Light of Ash Dieback. Where infected trees are identified adjacent to frequently used areas these will be dealt with accordingly and appropriate works recommended.

Where woodlands abut areas of high use and Ash Dieback is identified, the Council may opt to undertake removal of whole linear sections to ensure public safety. The wood from these processes will where possible be utilised for sustainable energy (i.e. biomass).

All trees identified with Ash Dieback will be inspected on a two-year cycle where they are within areas of high occupancy.

To increase species diversity following positive management of infected Ash and replanting with more diverse species.

Details of the symptoms of the disease can be found on the Forestry Commission's website at http://www.forestry.gov.uk/ashdieback#Symptoms.

Appendix 4

Tree Species Selection List

The Tree list below reflects the environmental conditions of Brighton and Hove City such as salt winds and chalk soil and the Councils aspirations to develop a more resilient tree population.

The suitability of any tree species will be assessed on a site by site basis and taking into consideration all site constraints.

This list is not intended to be exhaustive but is to be used as a guide to what can be planted within the City. Further species can be identified using appropriate online tree species selections tolls.

Common Name	Scientific Name	Family	Location	Habit	Mature Height (m)	Tolerances		
						Coastal	Chalk Soils	Clay Soils
Montpellier Maple	*Acer monspessulanum*	*Sapindaceae*	Parkland or pavement	Globular	10+	x		
Italian Alder	*Alnus cordata*	*Betulaceae*	Parkland or pavement	Conical	25	x	x	
Monkey Puzzle	*Araucaria araucana*	*Araucariaceae*	Parkland	Conical to Umbrella	40+	x	x	
Sweet Chestnut	*Castena sativa*	*Fagaceae*	Parkland	Broad	20 +		x	
Judas tree	*Cercis siliquestrum*	*Fabaceae*	Parkland or pavement	Globular	12	x	x	
Broad Leafed Cockspur Thorn	*Crataegus x persimilis*	*Rosaceae*	Parkland	Globular	5	x	x	
Monterey Cypress	*Cupressus macrocarpa*	*Cupressaceae*	Parkland or pavement	Conical	25-40	x	x	
Common Spindle Tree	*Euonymus europaeus*	*Celastraceae*	Parkland or pavement	Globular	8	x		
Honey Locust	*Gleditsia triacanthus*	*Fabaceae*	Parkland or pavement	Ovoid	30 +	x	x	
Willow Leafed Sea Buckthorn	*Hippophae salicifolia*	*Elaeagnaceae*	Parkland or pavement	Globular	10	x		
Common Holly	*Ilex aquifolium*	*Aquifoliaceae*	Parkland	Conical to Ovoid	25	x	x	
Eastern Red Cedar	*Juniperus virginiana*	*Cupressaceae*	Parkland or pavement	Conical	20-30	x		
Pride of India	*Koelreuteria paniculata*	*Sapindaceae*	Parkland	Globular	15 -20		x	
Dawn Redwood	*Metasequoia glyptostroboides*	*Cupressaceae*	Parkland or pavement	Pyramidal	20 +		x	x
Hop Hornbeam	*Ostrya carpinifolia*	*Betulaceae*	Parkland or pavement	Globular	20	x	x	
Sitka Spruce	*Picea sitchensis*	*Pinaceae*	Parkland	Conical	80+	x		
Corsican Pine	*Pinus maritima*	*Pinaceae*	Parkland	Conical	35-40			
Black Pine	*Pinus nigra*	*Pinaceae*	Parkland or pavement	Conical	40	x	x	
Austrian Pine	*Pinus nigra Austruaca*	*Pinaceae*	Parkland	Conical	35 -40			
Maritime Pine	*Pinus pinaster*	*Pinaceae*	Parkland	Conical to Broad	40	x		
Stone Pine	*Pinus pinea*	*Pinaceae*	Parkland	Vase like	25	x	x	
Monterey Pine	*Pinus radiata*	*Pinaceae*	Parkland	Conical to Irregular	40	x		
Scots Pine	*Pinus sylvestris*	*Pinaceae*	Parkland or pavement	Conical	35 -40		x	
White Poplar	*Populus alba*	*Salicaceae*	Parkland	Ovoid	20+	x	x	
Black Poplar	*Populus nigra*	*Salicaceae*	Parkland	Ovoid to Irregular	40	x	x	

Common Name	Scientific Name	Family	Location	Habit	Mature Height (m)	Tolerances		
						Coastal	Chalk Soils	Clay Soils
Eurasian Aspen	*Populus tremula*	*Salicaceae*	Parkland	Ovoid to Globular	40	x	x	
Hybrid Poplar	*Populus x canadensis*	*Salicaceae*	Parkland	Ovoid to Globular	40	x	x	
Callery Pear	*Pyrus calleryana*	*Rosaceae*	Parkland or pavement	Oval	15	x	x	
Common Pear	*Pyrus communis*	*Rosaceae*	Parkland or pavement	Oval	15	x		
Willow Leafed Pear	*Pyrus salicifolia*	*Rosaceae*	Parkland	Weeping	8	x		
Turkey Oak	*Quercus cerris*	*Fagaceae*	Parkland	Globular	35	x	x	
Holm (Evergreen) Oak	*Quercus Ilex*	*Fagaceae*	Parkland	Globular	25	x	x	x
Pin Oak	*Quercus palustris*	*Fagaceae*	Parkland	Globular	20-25			
Sessile Oak	*Quercus petraea*	*Fagaceae*	Parkland	Globular to broad ovoid	35	x	x	
English Oak	*Quercus robur*	*Fagaceae*	Parkland	Broad	20+		x	
Coastal Redwood	*Sequoia sempervirens*	*Cupressaceae*	Parkland	Conical	50+	x	x	
Whitebeam	*Sorbus aria*	*Rosaceae*	Parkland	Rounded	5-10		x	
Mountain Ash	*Sorbus aucaparia*	*Rosaceae*	Parkland	Rounded	10		x	
Swedish Whitebeam	*Sorbus intermedia*	*Rosaceae*	Parkland or pavement	Oval	15	x		
Wild Service Tree	*Sorbus torminalis*	*Rosaceae*	Parkland or pavement	Oval	20	x	x	
Salt Cedar	*Tamarix ramosissima*	*Tamaricaceae*	Parkland or pavement	Irregular	8	x	x	
Four Stamen Tamarisk	*Tamarix tetrandra*	*Tamaricaceae*	Parkland	Irregular	4	x	x	
Swamp Cypress	*Taxodium distichum*	*Cupressaceae*	Parkland	Conical	35-40		x	x
Common Yew	*Taxus baccata*	*Taxaceae*	Parkland	Globular	18		x	x
Broad Leaved Lime	*Tillia plataphylis*	*Malvaceae*	Parkland	Broad	20 +		x	
Silver Lime	*Tillia tomentosa*	*Malvaceae*	Parkland	Broad	20 +		x	
Elm Clusius	*Ulmus Clusius*	*Ulmaceae*	Parkland or pavement	Oval	15 -20	x	x	
Columnella Elm	*Ulmus Columnella*	*Ulmaceae*	Parkland or pavement	Upright	15 -20	x	x	
Dodoens Elm	*Ulmus Dodoens*	*Ulmaceae*	Parkland or pavement	Globular	15 -20	x	x	
Elm New Horizon	*Ulmus Horizon*	*Ulmaceae*	Parkland or pavement	Conical	15 -20	x	x	
Lobel Elm	*Ulmus Lobel*	*Ulmaceae*	Parkland or pavement	Columnar	15 -20	x	x	
Elm Lutece	*Ulmus lutece*	*Ulmaceae*	Parkland or pavement	Vase-like	15 -20	x	x	
Japanese Zelkova	*Zelkova serrata*	*Ulmaceae*	Parkland or pavement	Vase-like	20+	x	x	

Appendix 5
Tree Planting Specifications

Street Trees

The Council aims to reduce the possible conflict between tree roots and the public highway, by using permeable or porous material depending on tree pit specification and location. Bound rubber crumb is designed to provide a firm finish for pedestrian traffic combined with the permeability for air and water to penetrate the roots. This material is highly flexible and allows tree root growth and movement without the resultant cracking and distortion of the footway typically seen when asphalt is laid close to the base of trees. This system reduces trip hazards and the need for repeated repairs.

In addition, The Council will use tree root barriers and directors within hard surfaces where it is appropriate to do so. The tree root barriers and directors prevent root swirl and divert trees roots downwards preventing hazardous root damage. Examples of these products in included below.

Image 1: identifying tree root barriers to be used within grass verges

Image 2: identifying tree root deflectors to alleviate root damage within hard surfaces.

Images courtesy of Green Blue Urban.

All trees will be located with enough space that their crowns do not over hang the public carriageway at time of planting and be a minimum of 300mm away from the rear carriageway kerb edge.

Parks and Open Spaces

In grassed or exposed soil locations all tree pits will be finished with wood mulch to act as a slow release fertiliser and protective layer to retain moisture in the soil pit. This layer should be between 7- 10 cm in depth. When further wood mulch is required, the existing mulch is broken up with a hand fork prior to the addition of more mulch.

Planting with the City's Parks and Open spaces will prioritise larger growing species trees to provide valuable shade and other environmental benefits. Suitable areas to the south and west of children's play areas will be given priority.

Woodlands

In woodland environments the Council will prioritise the planting of native tree species. However, to ensure a resilient tree canopy non-native species could be introduced, where appropriate to do so.

Appendix 6:

Local Authority Examples of Managing Resource Shortages

In addition to the funding streams identified within the Tree Strategy, included below are a number of examples of how local authorities have met resource shortages for the management of trees which are directly relevant to Brighton and Hove. These include:

1. **Bristol City Council** has adopted a value for money approach to tree provision through its "TreeBristol" campaign. This has created a single body to raise funds through sponsorship; engage the local community through tree planting and other events; and planning and delivering a tree planting programme on Council land. It includes representatives from Council departments, community and conservation groups.

2. **Birmingham City Council** has a "Trees for Life" charity. This has planted 70,000 trees since 2006, and heavily involves local schools and includes a "Friends and Family" events when people who have sponsored trees can become involved in planting. The Council also offers small company sponsorship; a larger company scheme; multiple year sponsorship and corporate team building days.

3. The **London Borough of Islington** has developed a trading body called iCo Green to ensure that tree maintenance savings are met. It has developed an innovative new tree work contract, and used the CAVAT system to generate over £200,000 via compensation for trees lost during development. Income targets for the service have been met.

4. **Reading Borough Council** generates considerable amounts of by-products in the form of woodchips and wood. Recycling of tree by-products has commonly turned trunks into seats, sculptures and play equipment, together with creating wildlife habitats from standing timber and lying wood. Trials have been undertaken to recycle surplus woodchip from tree operations to provide bio-fuel as a renewable energy product. Wood is also being made available for other forms of wood recycling such as by the artist community or in training schemes. Revenue from these trials has contributed towards new planting of trees under the "Trees for Cities" Partnership and for other strategic tree planting.

5. **Bournemouth Parks Foundation**
   By closely following Charity Commission guidance and using model paperwork, the Bournemouth Parks Foundation was set up ready to function within just over 6 months, as follows: - - Establish a Limited Company (1 month) - Complete the Charity application and registration (3-4 months) - Research and apply for a charitable bank account (2 months) Time also needs to be factored in for the appointment process and discussions with potential Trustees. The success of any charitable organisation is down to recruiting Trustees with the right skills as well as flair, creativity and enthusiasm. In the case of the Bournemouth Parks Foundation it took about six months to find a core group sufficient to establish the Board, this process is ongoing.
   https://www.bournemouthparksfoundation.org.uk/

Appendix 7

Biosecurity (Pest & Diseases)

The Councils Arboricultural Service will continue to be proactive in planning for any new threats to the City's tree population.

If a statutory-controlled quarantine pest or pathogen is suspected or confirmed there is a legal obligation to notify the relevant plant health authority who will be able to provide help and direction on the required action.

The service will achieve this by adhering to the principles set out with the Arboricultural Associations Biosecurity Position Statement (Arboricultural Association, 2018 available at https://www.trees.org.uk/Help-Advice/Biosecurity-Guidance), these are:

- Adopting biosecurity processes and policy commitments.
- Contracts are required to implement routine biosecurity control measures, including cleaning and disinfection of clothing, PPE, tools, equipment and vehicles.
- All arising must be disposed of appropriately.
- Increase the species and genetic diversity of the Councils tree stock but this should be managed using best practice Biosecurity processes to reduce contamination.

To avoid the risk of disease having a widespread and damaging effect across the City the Council will encourage species and genetic diversity amongst the tree population within its future planting in line with DEFRA's Tree Health Resilience Strategy (May, 2018) https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/710719/tree-health-resilience-strategy.pdf

Appendix 8

Community Infrastructure Levy

Brighton & Hove City Council has an opportunity to support and potentially resolve the majority of arboricultural opportunities and challenges for the next ten years using the following emerging process. A significant solution could be found though the emerging Community Infrastructure Levy fund which is still being finalised in 2019/2020. The new funding process could attract an addition £500,000 on top of the current £1,000,000 in developer's contributions.

Cityparks should bid for a percentage of the CIL funding as more than three quarters of the selection criteria (coloured **green** below) is relevant to trees.

	Infrastructure Type or Project (funded by CIL)
1.	**Air Quality** All off-site citywide Air Quality mitigation and monitoring measures priorities where identified in Infrastructure Delivery Plan
2.	**Education facilities** All off-site provision and improvements to new or existing schools and public sector funded education facilities.
3.	**Emergency Services** Cumulative impacts of development upon services where identified in Infrastructure Delivery Plan.
4.	**Flood risk** Strategic Urban Drainage Systems (SUDS) - priorities where identified in Infrastructure Delivery Plan.
5.	**Health Facilities** Off-site citywide health care facilities provision.
6.	**Open Space Provision** All off-site provision and improvements to publically accessible parks and other recreation open space facilities including amenity green areas and areas for food growing.
7.	**Recreation space built facilities** All off-site provision and improvements including built provision to play space, indoor/outdoor sports, and playing fields.
8.	**Provision and enhancement of Green Infrastructure network** Green infrastructure network connectivity including cross boundary infrastructure, rights of way, biodiversity measures and tree planting
9.	**Public Realm** Strategic public realm upgrade including environmental improvements.
10.	**Renewable Energy** Strategic renewable energy projects and measures where identified in Infrastructure Delivery Plan.
11.	**Transport and Highways** Citywide transport improvements including walking and cycling facilities and networks and public transport facilities and services. Off-site provision, improvement and maintenance to new and existing public highways infrastructure and rights of way including traffic signals, junction upgrades and lighting.

Community Infrastructure Levy allows local authorities in England and Wales to raise funds from certain types of new developments for strategic infrastructure to support growth. The Council is introducing a Community Infrastructure Levy (CIL) in (2020) and a list of Infrastructure which may be funded in whole or part by the CIL reflecting the priorities.

Appendix 9

Infrastructure Planting

All new infrastructure planting schemes within the hard landscape must consider the key points to success outlined within the Tree Design Action Group's, Trees in Hard Landscapes, A Guide for Delivery, which include:

- Ensure collaborative working across all disciplines.
- Meet the needs of both the Highway and the tree.
- Integrate trees in to new infrastructure.
- Providing a non-compacted rooting environment.

http://www.tdag.org.uk/trees-in-hard-landscapes.html

Appendix 10

Capital Asset Value for Amenity Trees

Income from Capital Asset Value for Amenity Trees (CAVAT)

Based on the case studies from Islington in London it has been speculated that the Council could attract income from enforcement charges from damaged or lost trees on development sites. See Appendix 6.

When a Council owned tree is required to be removed to facilitate a development, the Capital Asset Value for Amenity Trees (CAVAT) value of the tree will be required to mitigate the loss, and the money received from the developer used to support the replacement planting within the City. CAVAT is a valuation method developed in the UK to express the amenity value of trees in terms of the cost of equivalent replacement. Further information on CAVAT can be found online at https://www.ltoa.org.uk/resources/cavat.

Brighton & Hove City Council