BRISTOL ONE CITY

# Bristol Tree and Woodland Strategy

**A plan to increase Bristol's Tree Cover to at least 20% by 2040**

# Contents



**Glossary of terms**

**BTWS:** (One City) Bristol Tree and Woodland Strategy **BCC:** Bristol City Council **BNG:** Biodiversity Net Gain **FC:** Forestry Commission
**BTF:** Bristol Tree Forum **CS:** Countryside Stewardship **FoA:** Forest of Avon **FoAP:** Forest of Avon Plan **NHC:** Natural History Consortium
**OCP:** One City Plan **OTPC:** One Tree per Child, Bristol **WT:** Woodland Trust

# 1. Joint Statement from the One City Environment Board and Bristol Health and Wellbeing Board

On behalf of the One City Environment Board and the Bristol Health and Wellbeing Board respectively, we are delighted to endorse the Bristol Tree and Woodland Strategy. The strategy sets out our long-term plan to increase Bristol's tree cover to at least 20% by 2040 while addressing the lower coverage of trees in some of our most disadvantaged parts of the city.

Whether it's the role that trees play in reaching the city's climate and nature goals or the beauty and adventure that woodlands can bring, the importance of improving our tree coverage and managing our woodlands more effectively cannot be overstated. The good news is that we're not launching this strategy from a standing start; our tree coverage has increased between 2020 and 2023 through a variety of tree planting programmes over the last ten years. This strategy builds on the inspiration of these efforts and outlines the opportunities to go further.

Reaching our vision for Bristol becoming a city of thriving trees will require sustained and collective action, so it is pleasing that building on the existing enthusiasm and commitment of many different partners and communities is at the core of the strategy. The strategy recognises the long history of partnership action for trees and woodland in Bristol and is clear about how everyone – from individual residents to businesses and whole communities – can play their part in delivering progress.

Delivering on this strategy will be essential to making progress on the missions set out in Bristol's One City Plan. In particular, the action outlined in the strategy directly contributes to our One City mission of collaborating to create a climate resilient city where everyone is empowered to act on climate and nature recovery. We're clear in this strategy about how important trees and woodlands are to climate and nature recovery, and ambitious about how our work will contribute.

It is not just creating a climate resilient city which this strategy plays a vital role in, but also the role that tree cover plays in the One City mission of ensuring that the circumstances that we grow up in will not determine our chances in life. As the strategy outlines, the lowest tree coverage in Bristol occurs in areas of high deprivation and where there are existing and ingrained health inequalities. We know that having good health is critical to boosting a person's life chances, and so there is a real opportunity to unleash the health benefits of trees where they could be felt most powerfully.

We know that the city faces the combined challenges of finding the right space to plant trees, obtaining the necessary financial resource to sustain key programmes and bringing together enough people to meet the scale of delivery. That is why we are delighted to be moving forward with a unified plan and why we are calling on all parts of the city – whether big players or small communities – to take action.

**Councillor Martin Fodor**
Chair –
One City Environment Board

**Councillor Stephen Williams**
Chair –
Bristol Health and Wellbeing Board

**Savita Willmott**
Co-Chair –
One City Environment Board

**Councillor Lorraine Francis**
Vice-Chair –
Bristol Health and Wellbeing Board

On behalf of Bristol City Council, I am delighted to support our partnership strategy for trees and woodland. As a local authority, we have made a strong commitment to managing more of our land for nature and have taken significant steps to improving the city's tree canopy in areas such as our parks and green spaces. While we will continue to make progress where we can, we know that reaching our ambitious city-wide goals will only be possible through collective efforts. That is why it is so essential to have communities and partners leading on this strategy.

**Councillor Martin Fodor, BCC Chair**
Environment and Sustainability Committee

The Natural History Consortium is delighted to support the publication of the Bristol Tree and Woodland Strategy. We have had the opportunity to hear from residents across Bristol during our public survey, and through engagement events during Festival of Nature, to contribute to the ambition of this collaborative ambition. We look forward to supporting delivery of the strategy and engaging businesses, residents and visitors with actions to achieve it.

**Savita Willmott**
Natural History Consortium

Urban trees provide vital habitats for wildlife, reduce pollution and impact of heavy rainfall, keep our towns and cities cooler, reduce stress and encourage people to spend time outdoors. Yet our Tree Equity Score shows that these benefits are not available to all. This strategy sets a clear roadmap to increase tree cover across the city benefiting both people and wildlife as we face a changing climate. But we need to act now!

**Ian Froggatt, SW Regional Director**
Woodland Trust

This strategy recognises the huge benefits that urban trees bring to the people of Bristol. In addition to the valuable focus on planting new trees and creating canopy, it is crucial to protecting our existing trees. If they are removed, it will take decades to replace the benefits they have provided, even if this is possible. Large, well-established trees have the greatest environmental, biodiversity and amenity value. They also help to keep Bristol cool, its air clean and to mitigate flood risk. We look forward to playing an active part in the new Bristol Tree Partnership Group.

**Mark CD Ashdown**
Bristol Tree Forum

Bristol is at the heart of the Forest of Avon, our local community forest. We have a wonderful proactive partnership that strives to see more people, of all ages, enjoy the benefits of trees and woodlands in Bristol. This strategy highlights the current strengths and the opportunities for the next few years to nurture and elevate the tree canopy, particularly where trees can give the most benefit. Trees are great for so many reasons - but a vast array of their benefits are directly for people – this is about improving the quality of life of residents and visitors. Let's help everyone get involved in this vision for the future...and have some fun whilst achieving it.

**Alex stone**
Forest of Avon

# 2. Summary

**Bristol's trees and woodland are vital to our health and wellbeing and as a home for wildlife.**

Bristol's tree canopy is around 18% (measured in 2023), which is comparable to other UK urban areas. But tree cover is unevenly distributed, with some wards as low as 9% and generally it is lowest in more disadvantaged areas.

Bristol's most common tree, the ash, is under significant threat from ash dieback disease, and for all trees and woodland climate change, development and lack of positive management are all significant challenges.

People have a deep emotional connection to trees and want to see more trees planted across the city, in streets, gardens and public spaces.

**Our Vision for Bristol's trees and woodland is:**

Bristol is a city of trees, where trees thrive, and their benefits are shared equally to maximise the health and wellbeing of all citizens.

**This Strategy aims to achieve:**

- Bristol's Tree Canopy is 20% by 2040, from 18%.
- Bristol's Woodland [1] meet the 'Managed for Wildlife' standard by 2030 [2].

**This Strategy sets out:**

- How challenges for trees and woodland can be overcome and opportunities realised.
- How flagship projects will drive action.
- How benefits from trees will be more equally shared.

These aims can only be achieved by working together, by taking action at every level from individuals to large organisations.

This strategy has been prepared in partnership by Bristol City Council, the Forest of Avon, the Woodland Trust and Bristol Tree Forum and the Natural History Consortium who represent strong voices and influence, and from conversations with many people and also organisations who care about trees.

[1] Sites of Nature Conservation Interest

[2] Site of Nature Conservation Interest that meet the 'Managed for Wildlife' criteria. It is estimated that around half of predominantly wooded SNCIs meet this expectation.

# 3. Values and Vision

### What do trees do for us?

Bristol's trees and woodland provide a huge range of linked benefits that contribute to all aspects of our lives, they:

- Reduce air pollution
- Provide shade and cooling
- Reduce flood risk and disturbance, provide natural flood management
- Provide improved habitat and food for wildlife
- Remove carbon dioxide from the air (and store as carbon)
- Improve health and wellbeing
- Provide easy ways to take practical action
- Create attractive, traffic calmed streets
- Improve views and reduce traffic noise
- Create attractive areas to work and invest in
- Produce a sustainable source of fruit, wood products and timber
- Improve water quality
- Prevent soil erosion and reduce soil loss
- Protect livestock and crops in agricultural settings

In a 2017 i-Tree Eco study, Bristol's trees provided £2.7 million worth of annual benefits to the city, including removing air pollution to the value of £1.6 million and carbon to the value of nearly £1 million per year. The total value of Bristol's trees was calculated at £279 million. These values likely to be higher in that this study under-estimated Bristol's total tree canopy.

# The Benefits of Trees in Bristol

Urban trees work hard for us. They are the green lungs of our city: bringing life, colour and beauty to our neighbourhoods; providing food and sanctuary for wildlife; and enhancing our health and wellbeing by keeping us cool, cleaning the air and connecting us to nature.

Following a citywide survey, we now know a lot more about Bristol's trees.

**Help teach our children about the environment.** Planting and caring for urban trees connects us with nature

**£260 million**
**Structural value**
(replacement cost)

**£2.7million**
**Total annual benefit**
from Bristol's trees

**Total net value**
of all Bristol's trees:
**£279million**

**Enhance our health** and wellbeing, reducing stress, and boosting our mental health


Remove **100 tonnes** of air pollution: value **£1.6 million/year**

**Bring life, colour** and character to the city, reducing noise and offering shade and shelter

**360,000 tonnes carbon dioxide**
**value £23 million**


Remove **14,000 tonnes** of carbon dioxide: value **£920,000/year**

Provide a **network of food** and protection relied upon by insects, birds and mammals



Reduce **flood risk** by preventing **90,000m³ of water** running into the drains per year: value **£140,000/year**

Figures based on 2017 i-Tree Eco sample assessment. See 'Key Findings' sheet for standard error calculations.

Data may under-estimate benefits - to be revised following re-measurement.

# Trees for a healthy and resilient city

Trees provide many benefits, but these benefits are not equally shared. In response, Tree Impact Criteria (TICs) have been developed to drive action by landowners to the key city challenges of environmental justice, climate change and nature recovery. The Tree Impact Criteria are designed to:

- **Address disadvantage:** prioritising action in areas of greatest need as defined by' Indices of Multiple Deprivation' (IMD).
- **Provide equal access to the benefit of trees:** prioritising action in areas with fewest trees, weighting action to areas which fall below the city average.
- **Reduce harmful effects of climate change:** focusing action in areas of greatest urban heat stress vulnerability, keeping neighbourhood's cooler in extreme heat events.
- **Deliver nature recovery:** focusing action on spaces where trees can contribute most to Bristol Nature Recovery Network [3], providing the greatest ecological benefit.

The TICs map show where trees would provide most benefit, it does not show whether tree planting can or should take place. This is because:

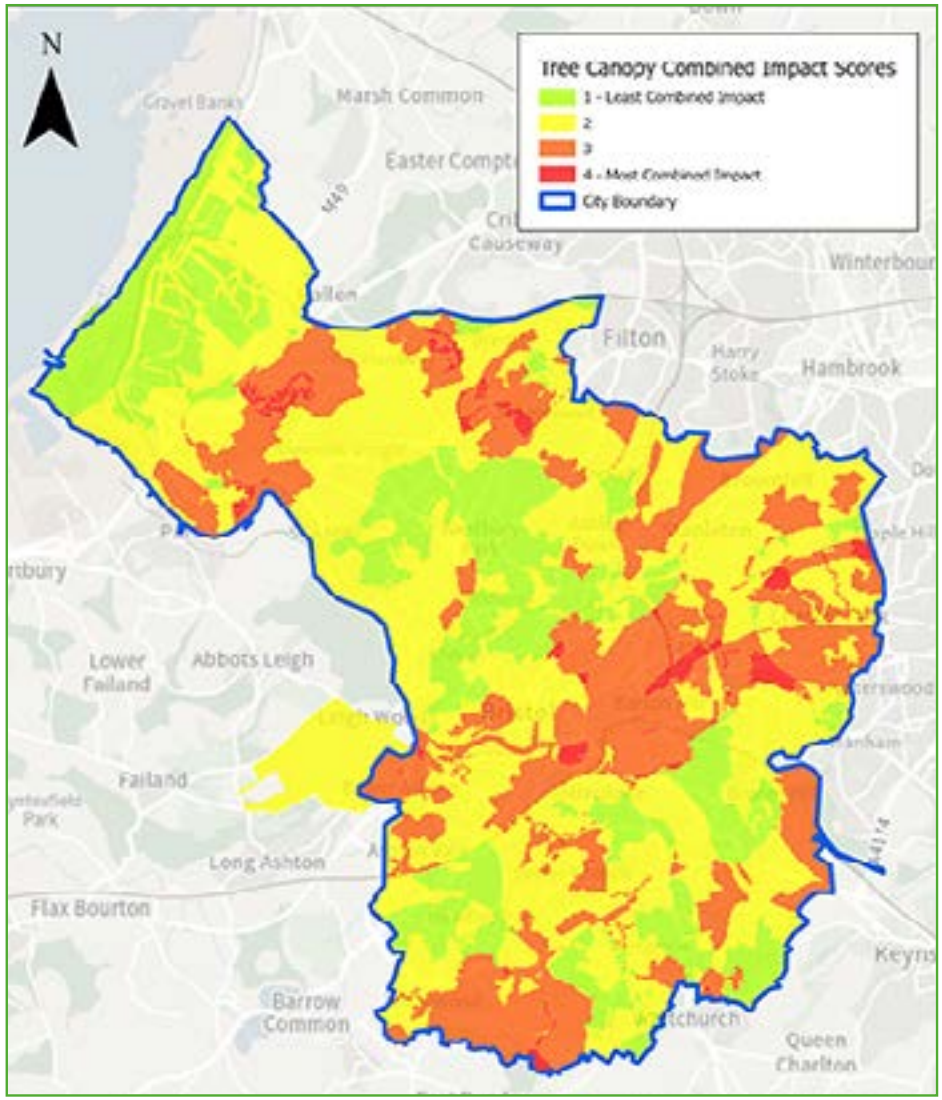
**a.** not all tree planting is beneficial – it is important to understand how the land is currently being used and whether trees would add value or not

and

**b.** barriers exist that restrict tree planting, of which the most significant is the extensive network of underground services.

The TIC's should not dissuade landowners from planting trees where they want to do so, if within a 'right tree, right place, right reason' approach.

**Tree Canopy Combined Impact Map**






[3] Action in the One City Ecological Emergency Strategy, in the context of West of England Nature Recovery Network mapping.

By taking a benefit (or impact) approach, the actions in this strategy will help Bristol's contribution to United Nation defined Sustainable Development Goals, including:


Growing local orchard products, providing healthy local food and cutting food miles.


Improving air quality by reducing nitogen dioxide levels.


Improving health in most deprived neighbourhoods.


Delivering high quality green spaces close to where people live.


Providing volunteering opportunities to help deliver a carbon neutral and nature rich city.


Increasing tree canopy, extending land managed for nature and improving the quality of existing nature areas.

# Guiding principles

**Taking action for trees and woodland will be guided by the following principles:**

- Address disadvantage, prioritising action in areas of higher deprivation.
- Ensure equal access to trees, prioritising work in areas with lowest tree cover.
- Reduce the harmful impacts of climate change, prioritising work in areas with greatest urban heat stress.
- Deliver nature recovery, prioritising work in areas where trees can provide the greatest contribution to Bristol Nature Recovery Network.
- Plant the 'right tree, in the right place, for the right reason' [4]
- Plant using a diversity of species resilient to climate change and resistant to disease.
- Exercise bio control ensuring that tree pathogens do not spread from abroad or within the UK.
- Enshrine opportunities for orchard and timber products in new planting.
- Sustainably and carefully maintain and manage trees in accordance with best practice.
- Work in partnership with citizens, landowners and organisations across the city by adding nature, not just trees.
- Engage people across Bristol in caring for, valuing and taking action for trees.
- Celebrate action for trees in Bristol.
- Think globally in how our choices affect international forests and peoples that rely on them.
- Avoid planting trees where this would harm existing ecology or other significant values.
- Follow the principles for trees and woodlands in the Forest of Avon Plan (FoAP) [5] (see Appendix 2).

[4] Available at: https://forestrycommission.blog.gov.uk/2020/07/17/right-tree-right-place-right-reason/

[5] Available at: https://forestofavontrust.org/forest-of-avon-plan/

# A One City vision for trees and woodland

**Bristol is a city of trees, where trees thrive, and their benefits are shared equally to maximise the health and wellbeing of all citizens.**

**The Vision is supported by two Strategic Aims:**

- **Strategic Aim:** Bristol's Tree Canopy is 20% by 2040, from 18%, measured in 2023. [6]

- **Strategic Aim:** Bristol's Woodlands [7] meet the 'Managed for Wildlife' standard by 2030.

These Aims are ambitious but considered achievable.

The One City Plan calls to double tree canopy by 2046 [8], this target has been revised to increase tree canopy from 18% to 20% by 2040 to meet the Forestry Commission's [9] recommendations for urban areas, adding **224 hectares** of tree canopy (equivalent to two times the area of Stoke Park Estate).

The target includes doubling tree canopy in the three Wards [10] with lowest tree cover at between 9 and 11% today.

All protected woodland, defined as Sites of Nature Conservation Interest, to be in good management, helping Bristol achieve '30% of land being managed for the benefit of wildlife by 2030' - see One City Ecological Emergency Strategy.

A Bristol Tree Partnership Group is invited to form and drive these aims.

This Strategy will be a dynamic document, with progress reviewed regularly and targets updated as necessary. To drive ambition, a Stretch Target has been adopted to achieve **25% tree canopy, or one quarter of the city**, in time and subject to future work.

The key impacts of the Strategy will be mapped, measured and quantified. (see Section 5).

Bristol's tree canopy was re-measured in 2023 and has increased to 18.2% from 16.9% last measured in 2020. This increase is due, in part, to trees planted over the past 10 years now maturing to the point that their canopy contribution can be measured.

[6] From 2023 baseline

[7] Sites of Nature Conservation Interest

[8] The One City Plan target was set understanding that Bristol tree canopy was around 12%, that has been revised up to around 18% by a more accurate measure

[9] The canopy cover Webmap of the United Kingdom's towns and cities - Forest Research

[10] St. George Central, Bishopston and Ashley Down, Easton

# 4. Taking Action Together

**This strategy is a One City approach for trees and woodland. The vision can only be achieved if we work together and take action at every level from individuals to large organisations. This strategy supports people's desire to live in a well-treed city. In response, key partners working through the Bristol Tree Partnership Group are committed to provide the direction and support necessary help residents, organisations, business and community take action for trees and woodland.**

The Key Partners supporting this strategy are Bristol City Council, Bristol Tree Forum, the Woodland Trust, the Forest of Avon and the Natural History Consortium.

## Our Ask:

We call on all residents, landowners, organisations and communities to take the following action for trees:

### Residents

- Plant a tree in your garden and do it alongside other actions for wildlife.
- Sponsor a tree in your neighbourhood.
- Join a community tree planting project, like One Tree per Child.

### Landowners (corporate and business)

- Explore opportunities to plant trees on your land, seek advice and support.
- Bring woodland areas up to the Managing for Wildlife standard, seek advice and support.

### Businesses

- Commit to plant 'One Tree per Employee'.
- Sponsor a tree.
- Support your staff to volunteer to plant and care for trees in the city.

### Developers and policy makers

- Make provision for at lease 20% tree canopy cover within development sites.

### Community groups

- Continue to work together and support your efforts to tackle climate change, respond to the ecological emergency and see more trees planted in the places and communities you represent.

# A brief (Bristol) history of action for trees

Bristol has a long-standing commitment to trees. Since the formation of the **Forest of Avon Community Forest** in 1992, the city has been the focus of tree planting involving many partners and communities. Over the last 10 -years, Bristol City Council's (BCC's) **One Tree per Child** (OTPC) programme, supported by the Woodland Trust (WT) and Forest of Avon (FoA) has planted 100,000 trees with the help of volunteers and school children, including gifting 15,000 fruit trees to children. In the same period, thousands of new street trees have been planted [see here] and **Bristol Tree Forum** (BTF) have distributed thousands of oak and other tree saplings to householders.

More widely, the FoA has produced Forestry Commission (FC) approved **woodland management plans** for all of BCC's woodlands and BTF has established a network of **Tree Champions** covering each council ward to help advise residents on tree issues. The Natural History Consortium (NHC) organises the annual **Festival of Nature** at which partners celebrate the benefits of trees and run activities to engage people in them.

As well as BCC funded programmes, considerable grant funding from Defra, FC and WT has been secured for planting and caring for trees across the city, (see Appendix 4). Business sponsorship is also important including through the 2019 One Tree per Employee campaign (see Appendix 5.3), which is to be re-launched. Tree Sponsorship has been available through the Council since 2017 and now through the collaboration with Trees for Streets. Partnership working has been critical to securing this funding and underpins successful delivery of the strategy.

# Talking Trees

**This strategy has been informed by stakeholder workshops and by feedback from a tree questionnaire.**

**Citizens and businesses were asked about their attitudes to tree planting and tree care, and what actions they would take for trees. The questionnaire also asked people to identify any concerns they had with trees, including planting in streets. Over 500 responses were received, the majority from individuals.**

- **Planting** 91% supported the ambition of the One City Plan (OCP) to double tree canopy cover, with 80% wanting more trees planted in parks and greenspaces, 59% wanting more trees planted in the pavement in their street. The main concerns about street tree planting were leaves and potential damage to property.
- **Care** 86% strongly agreed/ agreed they would water a street tree in their neighbourhood during a dry spell.
- **Funding** 65% strongly agreed/ agreed they would donate to a crowdfunding campaign to plant trees in their neighbourhood with 40% being willing to sponsor a tree, a further 34% wanting more information.
- 78% of business said they would help plant trees through events, with some interest in planting trees on land they own and in make donations, reflecting the positive response to the One Tree per Employee and Replant Bristol campaigns.

Two stakeholder workshops, representing 14 organisations, were held to inform the development of this strategy. The first workshop focused on the current situation, the challenges and how to better manage and protect trees and woodlands. The second workshop focused on high impact priorities identified in the first workshop, including retaining existing trees, planting street trees, utilising open/ green space for tree planting, growing the power of communities and building partnership approaches.


Overall, the workshops identified that the strategy needs to:

- Relate to existing strategies and inform others.
- Tap into, support and grow community activity.
- Engage people across the city and set out progress against targets.
- Identify priorities and support joint working to bid for funds.
- Grow the partnership of action for trees.

These principles underpin the Themes and Principal Actions in Section 8.

# 5. The Bigger Picture

**Bristol has strong policies in response to the declared climate and ecological emergencies aiming to achieve a nature-rich and climate resilient future for all.[11] These policies and associated strategies are driving significant change through all areas of the city. This tree and woodland strategy works within this policy framework, offering solutions through the 'lens of trees'. By increasing tree cover and better managing our existing trees we can support communities in greatest need, help reduce the harmful effects of extreme heat caused by climate change and provide more space for nature.**

Bristol-based strategies are framed within national and regional policies, strategies and plans, and these are outlined in Appendix 3, alongside referenced Bristol policies.

BCC's Parks and Green Spaces Strategy 2024-2039 [12] refers to trees and woodland through the priority theme: Nature and Climate. This strategy embeds the Tree Impact Criteria approach, with an action to target tree planting where this will deliver greatest benefit and aims to increase tree cover by at least 5 ha per year and bring all woodland SNCI's owned by the council up to the 'managing for wildlife' standard by 2030.


[11] Available at: https://www.bristolonecity.com/wp-content uploads/2020/02/one-city-climate-strategy.pdf

[12] Available at: https://services.bristol.gov.uk/council/policies-plans-and-strategies/parks-and-open-spaces/bristol-parks-and-green-space-strategy

# 6. Bristol's Trees and Woodland

**Most woodland in the city are owned by the Council including Ashton Court and Stoke Park Estates which extend beyond the city boundary. The remaining woodland have varied ownership including the private, charitable, education and public sectors. Not all ownership is known.**

Bristol's trees are distributed in woodland, parklands, greenspaces, streets and gardens across the city.

Woodland are mostly deciduous and focused on the Shirehampton, Blaise, Stoke Park and Oldbury Court Estates and the Avon Valley, smaller areas occur in parks and green spaces across the city. Pockets of woodland in Shirehampton Estate, Stoke Park, Oldbury Court and in the Avon Valley are **Ancient and Semi-Natural** [13]. These have great nature conservation value, along with the Avon Gorge which is home to city's own **Bristol whitebeam** only occurring here and a few locations elsewhere.

**Wood Pasture** [14] in some of the heritage estates is characterised by mature field trees in open parkland or pasture. Ashton Court owned by BCC, but within North Somerset, has one of the **largest population of veteran oak trees in England**, including the reputed **900-year-old Domesday Oak**.

**Veterans and other special trees** are a remarkable feature of the city's woodlands, parks and gardens. They include the giant **Lucombe Oak in Stoke Lodge** [15], the magnificent and part stone-walled **London Plane in Nightingale Valley** [16] and (probably) the city's sole surviving **Camperdown elm tree in Westbury Park**, which remarkably has avoided Dutch elm disease. Other grand trees mark coronations, the Normandy landings, or are simply iconic because of spectacular shows of colour, like the **Judas tree in Castle Park** with its vivid purple spring blossom. **Mature London planes** are a characteristic of older streetscapes, but a wide range of street trees occur throughout the city. Recent planting is extending these benefits to streets with fewer trees. A **wealth of shrubs and trees also occur in private gardens** and as well as benefiting owners, they contribute much to wildlife, landscape and the liveability of the wider city.

It is important that this strategy is supported by citywide data on trees, woodlands and greenspace. BCC has made available here details on the 54,500 or so individual trees it manages, plus trees managed by the University of Bristol. The Trees of Bristol [17] database and website has been developed by the Bristol Tree Forum as a city community resource. This includes trees managed by BCC and other organisations, such as the University and Woodland Trust and trees in private parks and gardens where these have public visual appeal. Information held includes basic data of location, species and measurements but also photographs, descriptions and updated measurements. The data is searchable, with trees grouped by species, by site (park, greenspace..) and by common characteristics, such as the 'Coronation Oaks'. The site is recognised as a valuable and unique resource by national organisations such as the Tree and Design Action Group.

[13] Available at: https://magic.defra.gov.uk/

[14] Available at: https://magic.defra.gov.uk/

[15] Available at: The Stoke Lodge Lucombe Oak wins Bristol Tree of the Year 2018 – Bristol Tree Forum

[16] Available at: https://www.monumentaltrees.com/en/gbr/england/gloucestershire/8906_woodbythebrislingtonbrook/

[17] Available at: https://bristoltrees.space/Tree/

# 7. Challenges and Opportunities

## Increasing tree canopy

**Whilst there appears to be plenty of space to more plant trees in the city, much of this space is already being used or has constraints that would limit tree planting. To increase city tree cover by 1% requires 112 hectares of additional canopy, an area equivalent to 157 football pitches adding to the urban fabric – in streets, parks and gardens, so that we live within and beneath the trees.**

Arguably the greatest constraint to increase urban tree cover is the network of underground services, that severely limit planting in streets which are the very places where trees are needed most. Planting trees in-itself is relatively straightforward, but to make a societal change, like double tree cover in the Bristol ward with just 9% cover, is an immense challenge – of space, resource, and effort. Some of these challenges are listed below, not to hold us back but to face and overcome them. With hope and determination we can do this (plus a significant injection of cash).

**Challenges:**

**Practical**

- No clear plan to show what land available to plant trees on at the scale needed to meet the city target.
- Limited space and competing priorities for land.
- Loss of parking space to accommodate street trees.
- Network of underground services that severely limit tree planting
- Climate change – stressing individual trees, disrupting species and habitats, increasing spread of disease.
- Capacity of UK nurseries to supply trees at the scale required to meet targets

**Financial**

- Trees are a non-statutory service and limited funds are spent elsewhere.
- Ash dieback is placing additional pressure on tree budgets.
- Grant funding for tree planting tends to be cyclical hampering delivery of long-term tree planting targets.
- Planting in streets delivers the greatest benefits but is relatively costly.

**Perceptual**

- Public concern about possible damage to property and problem of shade and leaves.
- Some landowners are unwilling to plant trees in public locations because of perceived liabilities.
- Homeowners may lack confidence and knowledge about what to plant and where to buy trees.

**Opportunities:**

- Tree Impact Criteria aligned to opportunity mapping enable resources to be targeted in areas of greatest benefit on public land and through strategy actions extending to private land in future.
- Massive public support for tree planting (see Section 4).
- Existing successful collaboration between BCC, FoA, WT, BTF drawing in resources and engaging a wider partnership of interests.
- Existing planting programmes like OTPC which are delivering at scale.
- Producing agreed species lists reflecting latest climate change and disease guidance and enshrining the principle of diversity will help future-proof planted trees.
- New sources of investment including woodland carbon code and Biodiversity Net Gain.
- Statutory plans that support tree planting including the emerging West of England Nature Recovery Strategy and Bristol Local Plan.

# Better managed trees and woodland

**We know how to manage urban woodland, yet around half of our most important woodland, designated Sites of Nature Conservation Interest, are neglected. Woodland are presumed to look after themselves, but in reality most are made up of even aged trees where little light permeates the canopy suppressing plants and animals that live there. The original wild woods that once covered Britain were disturbed by wind, fire, old age and large grazing animals that have now disappeared over the millennia.**

Our urban woodland would benefit from trees being thinned out, leaving deadwood and allowing trees to age. Some of the challenges faced are highlighted below, again as a stimulus to be overcome. Whilst trees can be protected by a Tree Preservation Order, Conservation Area, Felling Licence or planning policy, it is argued that this is still not enough and making the case for change to the UK Government.

## Challenges:

### Practical

- 16% of trees in Bristol are ash [18] - many may be lost to ash dieback.
- Residents lack information to assess the risk posed by ash dieback.
- Woodland are neglected with even aged trees and dense canopies that stifle ground flora.
- Woodland lack up to date and funded management plans.
- Climate change is likely to impact upon common woodland species in Bristol like beech and sycamore. [19]
- 30% of BCC's street trees are genetically related increasing vulnerability to disease.
- Data on woodland ownership is incomplete.

### Financial

- Trees and woodland are not a top priority for BCC or other landowners when allocating limited budgets.
- Making ash trees safe is placing additional pressure on budgets for trees.

### Perceptual

- Insufficient information about why trees and woodland need management.
- A 'convenience of neglect' prevents action now to bring woodlands into active management.
- Trees and woodland can be protected, but this is not considered strong enough to control tree removal.

[18] Available at: https://forestofavontrust.org/for-trees/itree-the-benefits-of-trees

[19] Available at: https://www.forestresearch.gov.uk/research/climate-change-impacts/climate-change-impacts-and-adaptation-in-englands-woodlands/regional-changes-in-england-in-tree-species-suitability-resulting-from-climate-change//

**Opportunities:**

- Targeting management solutions in areas of greatest benefit referencing Tree Impact Criteria.
- Drawing on the strategic importance of woodland as part of Bristol's Nature Recovery Network and focusing action to improve it.
- Responding to ash dieback in woodlands provides an opportunity to thin/ reduce dense ash canopy, promoting enhanced natural regeneration and ground flora.
- Funding through Countryside Stewardship (CS) can support management plans, improve biodiversity and/or climate change resilience, and address ash dieback
- New sources of investment coming on stream including Biodiversity Net Gain.
- Considerable advice and guidance is available to support positive woodland management e.g., the UK Forestry Standard.
- Environment Act, 2021, section 115 requires local authorities to consult on the felling of street trees.

A comprehensive list of challenges and actions for trees and woodlands is included in the Forest of Avon Plan [20] and emerging West of England Nature Recovery Strategy.

[20] Available at: https://forestofavontrust.org/forest-of-avon-plan/an-introduction/

# 8. Themes and Actions

**The Five Themes in this strategy represent the wide range of work for trees that is already taking place, the views of residents and businesses and the priorities identified at the stakeholder workshops. The key principle of partnership working crosscuts each theme.**

Actions are focused on Flagship Projects, where the city can do most to address challenges, realise opportunities and deliver the aspirations of communities and stakeholders. Flagship because their impact and profile will be attractive to funders and support wider engagement (summarised in Section 9). Actions are set within the wider context of work in Bristol to address the climate and ecological emergencies and are complementary.

This strategy is a dynamic partnership document and whilst themes are expected to remain, the actions will be revised as we progress, and partner involvement is welcomed at any stage.

# Theme One:
# Increase Tree Canopy - Plant and establish more trees

**Strategic Aim:** Bristol's Tree Canopy is 20% by 2040, from 18% [21].

## Where are we now?

Bristol's tree cover is 18.2% [22] (2023 data), which is a little above the England average for urban areas at 17.3% [23], and somewhat above the UK total tree and woodland cover at 14.5%[24]. The Forestry Commission recommends a minimum 20% urban tree cover [25] and the UK proposed target is to increase tree and woodland cover by 3% to 17.5% [26]. Tree cover across Bristol varies considerably from 9-28% by Ward, due to historic land use and patterns of development and is typically higher where larger areas of woodlands in former private estates have become part of the city, such as Oldbury Court and Blaise Castle Estates.

The Woodland Trust's 'Woodland Access Standard' [27] calls for:

- a wood of at least 2 ha within 500m of home; and
- a wood of at least 20 ha within 4km of home

Bristol residents have good access to larger woodlands with 95% of the population living with 4km of a 20ha woodland. But access to smaller woodland is just 17% - although this could be 34% if private woodlands were made accessible. The potential to plant 2ha woodlands in the city is very limited, as such the effort should be to increase the size of smaller woodland and to make these accessible. Enlarging smaller woodland would have significant wildlife benefits.

| | | |
|---|---|---|
| **Accessible Woods** | % population with access to a 2 ha+ wood within 500m | % population with access to a 20 ha+ wood within 4km |
| | 17.7% | 95% |
| **Inaccessible woods** | % extra population with access to a 2 ha+ wood within 500m if existing woods opened | % extra population with access to a 20 ha+ wood within 4km if existing woods opened |
| | 31.4% | 5% |
| **Woodland creation** | % population requiring new woodland to be able access a 2 ha+ wood within 500 | % population requiring new woodland to be created to access a 20 ha+ wood within 4km |
| | 50.9% | 0 |

[21] Sites of Nature Conservation Interest

[22] The Tree Map for Bristol (2023) produced for BCC by the Bluesky company and adjusted to the land area of Bristol.

[23] Available at: https://www.forestresearch.gov.uk/research/i-tree-eco/uk-urban-canopy-cover/

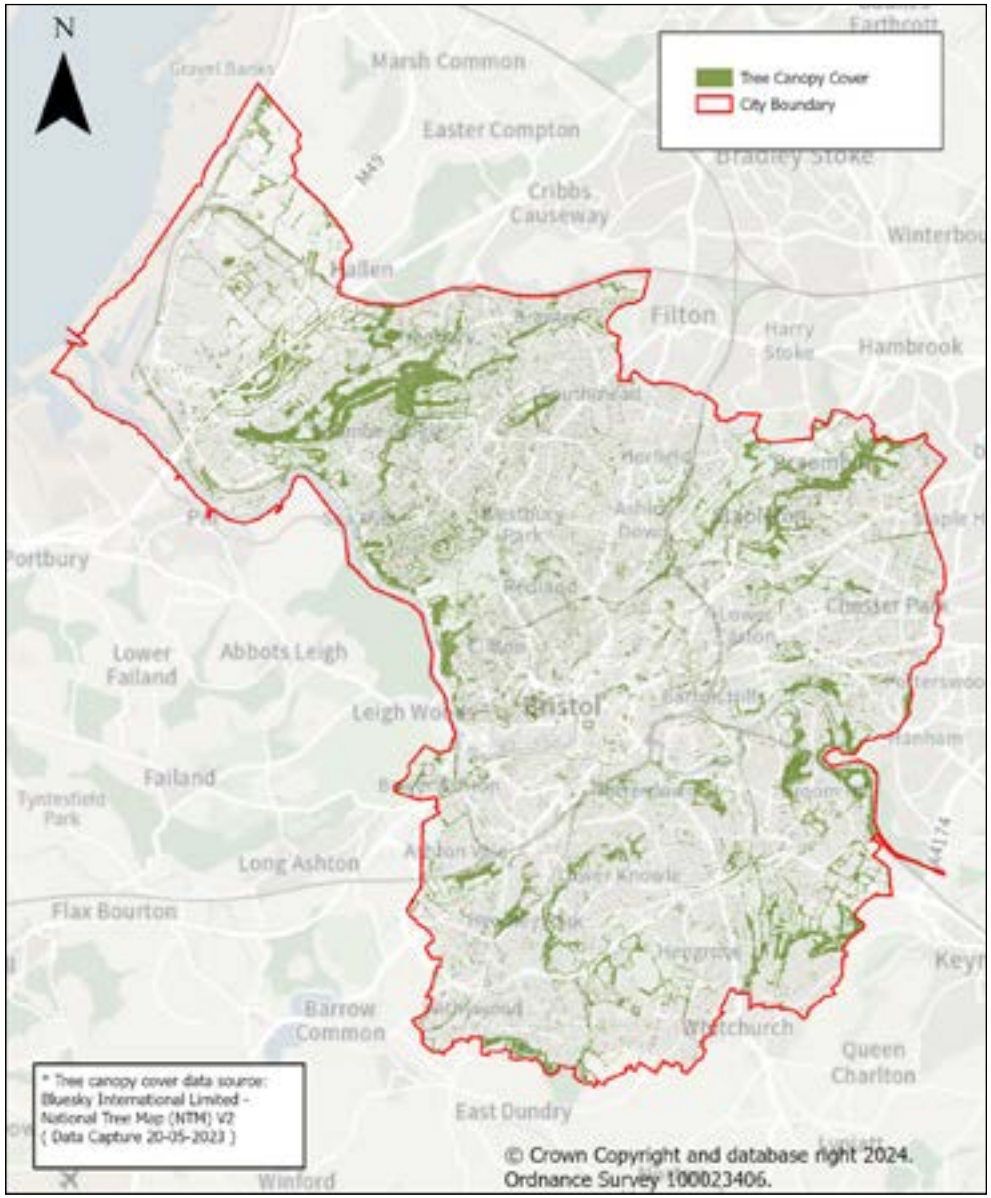
[24] Woodland cover targets Detailed evidence report.pdf (defra.gov.uk)

[25] The canopy cover Webmap of the United Kingdom's towns and cities - Forest Research

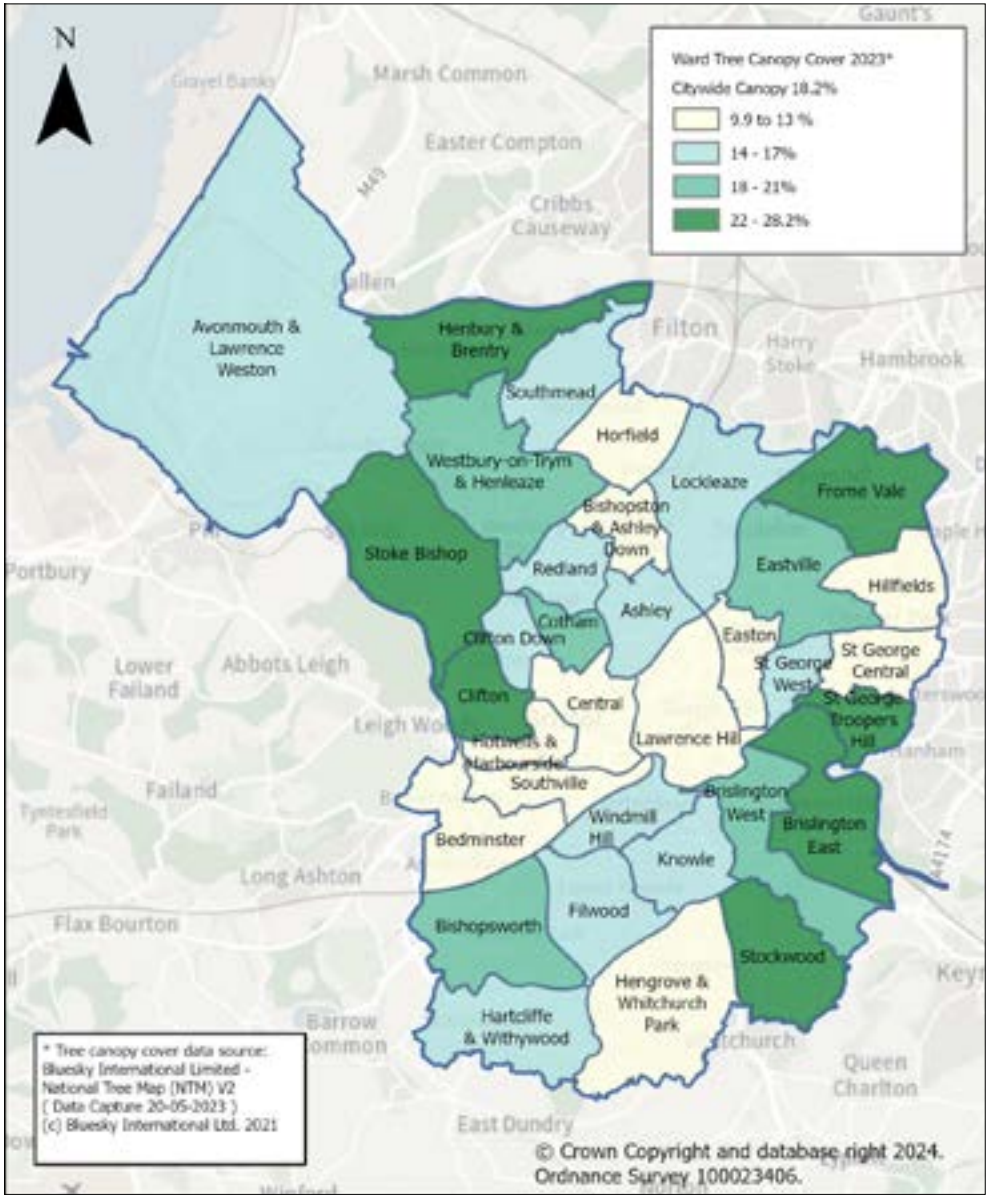
[26] see Woodland cover targets Detailed evidence report.pdf (defra.gov.uk)

[27] Space for people 'Targeting action for woodland access'

## City tree canopy




## Tree cover by Ward



## Opportunity and Benefit Mapping for Trees

Work has started to identify land with most potential to plant trees. This work is ongoing, intending to confirm that a 20% canopy target is achievable. This strategy calls for 25% tree cover, eventually. This aspirational or 'stretch target' will be explored as mapping and other work continues.

- **Parks & Green Spaces** - land within the Parks and Green Spaces Strategy (PGSS) [28] has been assessed to identify the potential to add tree canopy based on a sample of sites. This study has identified the potential to add **75-154** hectares tree canopy.
- **Adopted Highways** - the potential to plant trees at scale has been modelled by an M.Sc. student at the University of Bristol, data re-worked by BCC, with input from highway engineers and data experts. This phase I 'desktop' assessment has identified up to **700 hectares** (120,000 trees) of potential tree canopy by placing trees at regular spacing in pavements wider than 2 metres and in residential roads where trees are 8 metres apart to allow parking between. A stage II assessment is required to understand impact of underground services, which will be considerable, alongside total cost and the degree to which residents are supportive. It is anticipated that 10% of this total, or around 70 hectares tree canopy maybe achievable.
- **Private Land** - to include private gardens and land owned by corporations or public bodies. Mapping work is yet to begin to understand the potential to increase tree canopy on such private land including the aspirations of such landowners.

Opportunity mapping sets out significant potential to plant many more trees in Bristol. Our challenge is to realise this in the context of a dynamic funding environment in which tree planting competes with many other priorities.

### Our Commitments:

- Draw upon significant funding for tree-planting through governments' Nature for Climate programme, including Trees for Climate grant from the FoA [29].
- Focus investment (including through Biodiversity Net Gain) and activity on opportunity and benefit mapping delivering the four Tree Impact Criteria.
- Whilst constrained by space to deliver the WT Access Standard [30], we will use the principle of easy access to woodlands on foot to help determine the location of new woodlands and investment in existing ones, including public toilets.
- Develop and bid for funding for Flagship Projects, maximising impact and through this further raising the profile of the BTWS.
- Work individually and collectively to influence national, regional and Bristol tree policy and funding.
- Identify broad lists of appropriate species for planting in gardens, streets, parks, greenspaces and woodlands in the city. These will reflect climate change and disease modelling, the principle of species diversity, place emphasis on native species in copses and woodlands and reflect the character of existing tree populations. We will seek adoption of this across BCC Departments and other organisations.

[28] not allotments

[29] Available at: https://forestofavontrust.org/for-trees/trees-for-6limate

[30] Available at: https://www.woodlandtrust.org.uk/publications/2014/08/access-to-woodland-position-statement/

## Principal 5- Year Actions

| Ref | Action | Indicator* | Agency(s)** | Taking Action Together*** |
|---|---|---|---|---|
| TC1 | Deliver **Bristol's Green Canopy Flagship Projec**t, realising mapped potential to plant 50ha+ tree canopy on PGSS land, working through One Tree per Child. | Business case developed 2025. Short-term aopportunities realised through Trees for Climate, other grants 2025-26 | BCC | Help plant a tree |
| TC2 | Deliver **Street Tree Renaissance Flagship Project**, realising mapped potential to plant 1,000 street trees on Highways Land. | Business case developed 2025, 1st phase funds secured 2025, 40 ha tree canopy planted. | BCC | Sponsor a street tree |
| TC3 | Deliver **Bristol's Garden Forest Flagship Project**, 5-year project, realising mapped potential to plant in gardens, providing subsidised trees, link to wider nature benefits including My Wild City approach. | Business case developed 2025, Funding proposal presented to potential funders 2025, 1st phase funds secured 2026, 10,000 trees planted. | FoA | Plant a tree<br>Commit to One Tree per Employee |
| TC4 | Deliver **The Bristol Orchard Flagship Project** 5-year project realising potential to plant on mapped greenspace, and private land. | Business case developed 2025, Funding bid submitted 2025,Trees planted by year, by location & ownership. | BCC | Help plant a tree and grow an orchard |
| TC5 | Complete assessment of Highways and garden opportunity mapping, reviewing all opportunity mapping to see where it can contribute to the WT Access Standard. | Mapping completed, planting opportunity defined and prioritised. | BCC, FoA | |
| TC6 | Prioritise planting sites reflecting all opportunity and benefit mapping, to maximise impact of BNG units. | Initial priorities identified 2023? | BCC, UoB, others TBC | Review the potential to plant trees on your land |
| TC7 | Map non-BCC open land outside residential areas to establish possible tree planting areas, applying TIC to this to establish priorities. | Partners identified 2025, land mapped 2025, landowners established 2026, ha canopy delivered by year | TBC, possible role for Tree Champions | Be a Tree Champion |
| TC8 | Define broad species lists for a range of planting in Bristol, based on latest research, policy and practice. | List agreed 2025, related to BNG, available on Data Hub 2025: part of right tree, right place, right reason guidance | BCC, WT, FoA, FC | |
| TC9 | Calculate and communicate the value of increasing tree cover – including the health, climate and societal value | Devise metric to measure total added value. | BCC, WT, FoA and FC | |

## Cross Cutting Actions

| Ref | Action | Indicator* | Agency(s)** | Taking Action Together*** |
|---|---|---|---|---|
| CC1 | Create Bristol Tree Data Hub hosted by FoA and with links to partner websites, setting out:<br>Priorities for tree and woodland planting incorporating:<br>• Baseline tree canopy data and monitoring<br>• Guidance and information<br>• Impact criteria<br>• Mapping of tree planting opportunity.<br>• BCC/ landowners' responsibilities for trees including tree safety, how to care for/manage them, planning and permitted tree felling, tree replacement standards and where to get tree services from.<br>• How responsible sourcing can benefit trees globally. | Hub established 2025,<br>All information added 2026 | FoA, supported by BCC, WT, BTF | |
| CC2 | Measure, review and report on Bristol's Tree Canopy, reflecting activity across all 4 themes. | Canopy measured 3- yearly from 2025, ecosystem service value recalculated 4-yearly, from 2025 | BCC | |
| CC3 | Develop Trees of Bristol database and website to:<br>• Enhance understanding and appreciation of the city's trees.<br>• Support recording and analysing actions which contribute to the goals of the tree strategy. | Public engagement with the website. Community feedback on the website and its usability. | BTF in collaboration with BCC, FoA, WT and private landowners | Be a Tree Champion |

*Key Performance Indicator **Bold text: lead agency(s) *** inviting citizens, organisations, business and communities to take action for trees

# Theme Two:
# Managing Trees and Woodland - Trees for the future

**Strategic Aim:** Bristol's Woodland meet the 'Managed for Wildlife' standard by 2030 [31].

## Where are we now?

### Woodland

BCC's woodland have FC approved Woodland Management Plans, due to be revised 2024-2026. Whilst trees in BCC woodlands are managed accordance with Quantified Tree Risk Assessment (QTRA) procedures and in line with its Ash Dieback Plan, wider woodland management been limited due to factors including core and external grant funding. Around 50% of predominantly woodland SNCI's currently meet the 'managed for wildlife standard.

Significant areas of other woodland are in protective ownership e.g. The University of Bristol, UWE and the National Trust, with other woodlands owned by Network Rail and Highways England and managed according to operational objectives. Not all ownerships are known.

Across Bristol, woodland generally has limited management and is not delivering its potential for Nature Recovery and more widely in terms of climate change mitigation, amenity and landscape.

### Individual Trees

BCC manages 54,500 individual trees (trees outside woodland), which are managed in line with QTRA protocols. Other individual trees are owned by the universities, institutions, charities, businesses and by residents. Larger landowners have QTRA procedures in place, whereas residents are reliant on their own assessment of risk and subsequent advice of consultants/ contractors.

As with the felling of individual trees, there is often public concern about woodland management practices. In this context clear and advance communication of objectives by all landowners is critical.

## What will we do?

- Identify all woodland owners, establish their objectives and needs, and focused on Flagship Project delivery, support them as necessary to prepare management plans and/or make interventions to support their contribution to Bristol's Nature Recovery Network in the context of ash dieback and projected climate change, We will update BCC's WMPs as part of this approach, setting out management strategies to bring them into good condition, in line with PGSS targets, drawing down CS grants to produce plans and deliver actions in them (see Appendix 4).
- Promote the best practice of the BCC Ash Dieback Plan to other landowners in the city and more widely highlight landowner responsibilities in terms of ash dieback. This will include setting out duties under the Highways Act and Miscellaneous Provisions Act on the Data Hub.
- Support woodland owners to put in place policies to protect and sustain woodlands, underpinning future care and resources.

[31] Sites of Nature Conservation Interest

## Principal 5- Year Actions

| Ref | Action | Indicator* | Agency(s)** | Taking Action Together*** |
|---|---|---|---|---|
| M1 | Deliver **Bristol's Natural Woodlands Flagship Projec**t realising the potential to get all Sites of Nature Conservation woodlands into positive management. | Business case developed 2025, short-term opportunities realised through CS from 2025, Funding secured, % positively managed | BCC | Be a woodland volunteer<br>Seek support to manage your woodland |
| M2 | Audit ownership of non-BCC woodlands to determine condition and management intentions. | Funding secured 2025; audit undertaken 2026 | FoA? WT consultant (research) | |
| M3 | Contact private woodland owners to promote woodland management and where grant is available, support preparation of FC WMPs. | No., % woodlands with WMPs, actively managed by year | FoA | Be a Tree Champion |
| M4 | Renew FC approved WMPs for all BCC owned woodlands | No., % woodlands managed to PGSS target by year | FoA/ Consultant/BCC | |
| M5 | Determine potential for a city-wide approach to woodland management to achieve favourable condition and help sustain long-term management | Discussions held with landowners and potential partners 2025, feasibility report produced in context of FC/ other grants 2025 | FoA? FC? BCC, WT | |
| M6 | Tree owners to monitor and manage their (ash) trees, drawing upon best practice of BCC and FC guidance | Partnership group formed 2025, best practice disseminated 2025 | BCC, UoB, UWE, Network Rail | Y |

## Cost cutting actions

| Ref | Action | Indicator* | Agency(s)** | Taking Action Together*** |
|---|---|---|---|---|
| CC1 | Create Bristol Tree Data Hub hosted by FoA (detail under TC Actions) | Hub established 2025, All information added 2026 | FoA, supported by BCC, WT, BTF | |

*Key Performance Indicator **Bold text: lead agency(s) *** inviting citizens, organisations, business and communities to take action for trees

# Theme Three:
# Protecting trees and woodland - Look after the trees we have

## Where are we now?

Bristol's trees are protected and cared for and replaced through:

- Statutory protection through Tree Preservation Orders, Conservation Areas and Felling Licences. Approximately 33% of trees in Bristol are within a Conservation Area, see here.
- Bristol Local Plan planning policies (draft policies 2023, subject to adoption) see Appendix 3), including:
  - **Policy BG1:** Green infrastructure and biodiversity in new development
  - **Policy BG2**: Nature conservation and recovery
  - **Policy BG3:** Achieving biodiversity gains
  - **Policy BG4:** Trees

**Where:**

- Development proposals will be expected to incorporate appropriate multifunctional green infrastructure and provision for nature.
- Development that fails to take the opportunities to enhance ecological networks or results in significant harm to biodiversity, which cannot be appropriately mitigated, will not be permitted.
- Development proposals (as defined) are required to deliver a minimum of 10% biodiversity net gain.

**Specifically, 'Policy BG4: trees', states:**

> **'Trees provide a wide range of benefits to the city's residents and visitors and its natural environment, including making an important contribution to the character and quality of urban areas, whilst helping to mitigate and adapt to climate change. This policy aims to ensure trees are retained as part of new development or replaced when this is not possible. The approach seeks to ensure new development increases the presence of trees throughout the city, contributing towards the aim of extending the city's tree canopy.'**

- Where development permits tree loss, compensatory tree planting will be required at minimum to the **Bristol Tree Replacement Standard** or greater where Policy 'BG3: Achieving Biodiversity Gains' applies
- **Provision of advice and services** by professional tree management companies.
- Use of **risk management policies** which define tree safety assessments in accordance with national Quantified Tree Risk Assessment (qtra.co.uk)
- **Provision of information on tree felling and canopy lost** in the BCC annual tree planting reports.
- **Promotion of trees and their benefits** by BCC, FoA, BTF and WT.
- **Engaging people in action for trees** by BCC, FoA, BTF and Tree Champions, and WT.

For details of the wider policy context for trees, see Section 3 and Appendix 3.

### Concern over Tree Felling and Maintenance

- There is public concern over tree felling in the city, heightened by the highly contentious approach of a small number of councils elsewhere, including felling trees due to budget constraints. Transparency about the approach of BCC and others to trees in the city is critical.

### Our Commitments:

- Draw upon the strong interest in trees to further grow a tree culture within communities which builds understanding of the benefits of trees, the dynamics of a tree's life, the need for care and management, and the opportunities trees present to take positive action on the climate and ecological crises. Community based organisations and individuals have an important role in achieving this, complementing BCC's statutory responsibilities for trees.
- Address concerns about tree works and felling by providing clear information about roles, responsibilities for trees; provide timely information on tree works, going beyond minimum legal requirements as necessary, e.g., site-based information. As part of this we will develop closer working between BCC, utility companies and others whose operations directly impact on trees.
- Changes to the statutory protection of trees and woodland are beyond the scope of this strategy but calls to strengthen the protection of trees are recognised. The Tree Partnership Group is invited to express its views and advocate for change. Obvious areas of debate include extra protection for ancient woodland and veteran trees.
- The council will consult on the felling of street trees in line with section 115 of the Environment Act, 2021.

## Principal 5- Year Actions

| Ref | Action | Indicator* | Agency(s)** | Taking Action Together*** |
|---|---|---|---|---|
| PT1 | Complete mapping and status reports for veteran, champion and other irreplaceable trees, and ancient and planted ancient woodlands. | Mapping, status reports complete 2025 | TBC | Be a Tree Champion |
| PT2 | Publish guidance on how tree protection works to support communication of proposals to fell/ manage trees, hosted on the Bristol Tree Data Hub. | Updated info agreed, available 2025 | BCC, FC | |
| PT3 | Organise summit between BCC, utility companies, agencies with operational land and others whose work impacts upon trees in Bristol to discuss issues, share and develop tree policy and practice. | Summit organised 2025, No. subsequent meetings if necessary | BCC, Bristol Water, Wessex Water, Network Rail and others. | |
| PT4 | Review, update and extend the Bristol Streets Guide, making specific reference to minimising harm to street trees during street works and creating more opportunities to plant them. | Updated guide produced 2024 and promoted | BCC | |

## Cost cutting actions

| Ref | Action | Indicator* | Agency(s)** | Taking Action Together*** |
|---|---|---|---|---|
| CC1 | Create Bristol Tree Data Hub hosted by FoA (detail under TC Actions) | Hub established 2025, All information added 2025 | FoA, supported by BCC, WT, BTF | |
| CC2 | Measure, review and report on Bristol's Tree Canopy (detail under TC Actions) | Canopy measured 3- yearly from 2025, ecosystem service value recalculated 4-yearly, from 2025 | BCC | |

*Key Performance Indicator **Bold text: lead agency(s) *** inviting citizens, organisations, business and communities to take action for trees

# Theme Four:
# Participation - Trees for everyone

## Where are we now?

A tree questionnaire shows strong community support for more tree planting more tree planting and that with greater information they would care for local trees, plant them in gardens and help fund more in their neighbourhood. Business responses set out a similar commitment, mirroring responses to OTPC and campaigns like Replant Bristol.

Drawing on work to create the Forest of Avon Community Forest there is a culture of partnership working for trees in Bristol, including through BCC, FoA and WT, as well as strong community-based activity supported through OTPC, BTF, Parks and community groups.

BTF and its Tree Champions, Postcode Wildlife Groups, Friends of Parks Groups and many others have a strong interest in and knowledge of local areas and will have an important role in helping to engage and involve more local people in suggesting locations for trees and planting and caring for them.

## What will we do?

Responding to and developing this strong interest in trees, we will:

- Use the Data Hub to promote the benefits of trees, how people can get involved and where planting opportunities are (drawing on opportunity and benefit mapping).
- Bid for funding to further develop and support local capacity to help plan, plant, care for and manage trees and woodlands.
- Celebrate local action for trees and woodlands, growing interest in them.

## Principal 5- Year Actions

| Ref | Action | Indicator* | Agency(s)** | Taking Action Together*** |
|---|---|---|---|---|
| PP1 | Deliver **Our Tree City Flagship Project** to support and grow the role of Tree Champions, community groups, individuals and volunteers in planting and caring for trees and supporting woodland management.<br>Grow role of BTF **Tree Champions** to include:<br>• Advising people on tree issues and proposals.<br>• Supporting people in planting, caring for and managing trees.<br>• Adding and updating Tree Data Hub content.<br>• Engaging people in experiencing and celebrating trees and woodlands. | Business case prepared 2025, bid submitted 2026, training days delivered, trees planted, m2 woodlands improved by yr<br>Funding secured (see PP1), activity days undertaken by year | BCC, FoA, WT, Others TBC, BTF | Be a Tree Champion |
| PP2 | Deliver **Business Trees Flagship Project** drawing on One Tree per Employee to run annual business campaigns, providing engagement and funding for tree planting and woodland management across the city. | Business case prepared 2025, bids submitted 2026, £s raised by year | FoA, WT, BCC | Commit to One Tree Per Employee |
| PP3 | Expand and integrate range of sponsorship options enabling individuals and organisations across the city to support local tree planting, care and woodland management. | Complementary suite of sponsorship options produced, promoted on Data Hub 2025 | BCC, FoA, WT, BTF | |
| PP4 | Organise Bristol Tree & Woodland celebration. | Annual celebration as part of Bristol Festival of Nature. | FoA, WT, BCC, BTF, BNHC | |
| PP5 | Apply to become a Tree City of the World. | Application made 2025 | BCC | |

## Cost cutting actions

| Ref | Action | Indicator* | Agency(s)** | Taking Action Together*** |
|---|---|---|---|---|
| CC1 | Create Bristol Tree Data Hub hosted by FoA (detail under TC Actions) | Hub established 2025, All information added 2026 | FoA, supported by BCC, WT, BTF | |
| CC2 | Measure, review and report on Bristol's Tree Canopy (detail under TC Actions) | Canopy measured 3- yearly from 2025, ecosystem service value recalculated 4-yearly, from 2025 | FoA TBC | |

*Key Performance Indicator **Bold text: lead agency(s) *** inviting citizens, organisations, business and communities to take action for trees

# Theme Five: Bristol and global world

Forests cover 31% of the land area of our planet, are home to more than three-quarters of the world's life on land and are vital to mitigating climate change [31]. Yet globally they are under threat particularly from the clearance of tropical forests for agriculture, particularly soya, palm oil and beef cattle. Across the world the UN estimates a net loss of 5 million hectares each year [32] . At COP26 world leaders endorsed a commitment to halt and reverse forest loss and land degradation by 2030 [33] including through the sustainable production of goods.

This Strategy is primarily about taking action for trees in Bristol, but also raises awareness of how we all can make a difference by sourcing products with a lower global impact, such as choosing Forestry Stewardship Council certified timber, products free of palm oil or from sustainable sources or reducing consumption of meat. There is no doubt that meat eating is driving deforestation and going vegetarian for one day a week for dietary or religious reasons is a small change in your diet that can improve your health and the environment [34].

**Our ask:**

- Purchase timber and other forest products from well managed sources, e.g. Forest Stewardship Council certified.
- Choose products that contain palm oil from sustainable sources.
- Go vegetarian / plant-based diet for at least 1-day a week [35].
- Support an international tree charity – for example Tree Aid, who work with communities across dryland Africa to tackle poverty and the effects of the climate crisis, working out of Bristol with bases in dryland Africa.

[31] Available at: https://www.worldwildlife.org/threats/deforestation-and-forest-degradation

[32] Available at: https://fra-data.fao.org/assessments/fra/2020

[33] https://impact.economist.com/sustainability/ecosystems-resources/progress-on-cop26-pledges-deforestation

[34] Academy of Nutrition and Dietetics: eatright.org

[35] Subject to your personal health needs.

# 9. Resources

## Tree canopy target

**The target is for Bristol to achieve 20% tree cover by 2040, adding 224 hectares of canopy. To achieve this will require significant and sustained investment. For example, planting 73,000 individual trees in streets, gardens and greenspaces costing c.£285 million at 2023 prices (£17 million per year), discounting economies of scale and value of tree benefits.**

Direct and indirect benefits of such an investment are significant and will become more important as the climate and ecological emergencies grow. iTree Eco Bristol (2017)[36] shows that Bristol's trees and woodlands contributed annual environmental management services benefit of £2.7 million, as well significant and growing contributions health, prosperity and wider quality of life (see Appendix 1). Repeating this survey in 2024 is likely to demonstrate an even greater contribution as these trees and newly planted ones mature.

Work already undertaken and actions as part of the BTWS will determine the amount of public land which is available to plant trees relative to other strategic priorities and the contribution that private land can make. This may result in the target being revised downwards, but cross cutting all our work will be prioritisation of all tree planting to where it delivers the greatest benefit, as determined by the Tree Impact Criteria.

Image: Mark Ashdown

[36] Available at: https://forestofavontrust.org/for-trees/itree-the-benefits-of-trees

## Flagship projects

As part of the 5-Year Action Plans, an early priority is to develop transformational Flagship Projects which will be attractive to funders, make important early contributions to delivery of targets (including additional staffing to help do this) and through this generate further profile, resources and momentum. Able to be quickly submitted when new funding becomes available, their impact and profile will also underpin an approach to potential sponsors and donors.

Subject to further feasibility work, these will include:

| Ref | Project | Summary | Partners | Scale (2023) | Potential Funding |
|---|---|---|---|---|---|
| TC1 | Bristol's Green Canopy | Realise mapped potential to plant 50ha tree canopy as woodland on PGSS land, working through OTPC. Scope for natural regeneration adjacent to existing woodlands in less-visited areas.<br>Funding for trees and staffing. | BCC | £1 million planting,<br>Natural regen areas half the cost | BCC, BNG, FoA Trees for Climate, England Tree Planting Prog |
| TC2 | Street Tree Renaissance | Realise potential to plant in streets and highways, prioritised to areas of greatest benefit. Links to West of England 1,000 Green Streets project.<br>Funding for trees and staffing. | BCC | £42 million for 50ha canopy/ 11,000 trees | BCC, WECA, S106, BNG |
| TC3 | Bristol's Garden Forest | Realise potential to plant in gardens, providing subsidised trees. 5-year project including information, guidance, a role for Tree Champions and funding for coordinating capacity. | FoA, BTF, BCC | £300,000 (suggested fund) | Sponsorship |
| TC4 | The Bristol Orchard | Inspired by work undertaken, combine local food growing with community-led planting to create a network of productive orchards, across the city. Links to West of England Community Orchard project. 5-year project to include funding for coordinating capacity and training | FoA, BCC, | £450,000 | Grants, sponsorship, BNG |
| M1 | Bristol's Natural Woodlands | Realise the PGSS action to get all SNCI, SSSI or NNR (priority) woodlands into positive management, making a key contribution to Nature Recovery. To include funding for coordinating capacity, incentivising action and improvement works. | BCC, FC, Private landowners | To be costed | BCC, BNG, FC grants |
| PP1 | Our Tree City | Support and grow the role of Tree Champions, community groups, individuals and volunteers in planting and caring for trees and supporting woodland management. | BTF | £350,000 | BCC, grants, sponsorship |
| PP2 | Business Trees | Draw on One Tree per Employee and Replant Bristol, to run annual business campaigns, providing engagement and gearing up funding for tree planting and woodland management across the city. 5-year project funding internal or external capacity. | FoA, WT, BCC, BTF,<br>consultants | £50,000 in house,<br>£175,000 if not | WT, WECA |

### Impacts of Flagship Projects:

- **Bristol's Green Canopy** will make a major contribution to delivering nature's recovery across Bristol and create new accessible woodlands.
- **Street Tree Renaissance** will deliver a whole new generation of street trees prioritising areas in greatest need.
- **Bristol's Garden Forest** will plant many more trees in gardens creating greener, wildlife rich neighbourhoods.
- The **Bristol Orchard** will establish a network of orchards providing healthy affordable food, close to where people live.
- **Bristol's Natural Woodlands** will help bring nature back to Bristol's woodlands and sustain them into the long-term.
- **Our Tree City** will help establish and support thriving community-based networks of people planting and caring for trees.
- **Business Trees** will gear up sponsorship and support, delivering more action for trees across the city.

# 10. Delivery

**To drive actions in this strategy a Bristol Tree Action Group is invited to form. To be formally constituted, this group would meet quarterly and be responsible for progressing actions in the Strategy and reporting progress to the One City Environment Board. As a small, action-orientated group, there would be opportunities for wider partners to attend to contribute capacity and expertise to help progress key actions. An annual celebration linked to the Festival of Nature would showcase work undertaken, particularly by communities and volunteers.**

**Document produced by:**

PLAN4TREES

**Jon Clark M.Sc. MRTPI CMLI**

# Appendix 1: Tree & Woodland Benefits (Abridged from p38-39 of the Forest of Avon Plan [37].)

**Health & Wellbeing** Trees, and the natural environment more generally, provide a range of benefits to both our mental and physical health. In urban areas, trees mitigate asthma and breathing conditions by filtering air borne pollution, provide cooling and shade during heatwaves, and lower stress levels. Trees also contribute to safer communities: research suggests that housing associated with trees and greenery suffer from less crime and their inhabitants feel safer. There is even evidence that trees benefit hospital patients' recovery times: less time is spent in wards with views of trees. Woodlands provide recreational opportunities for people in both cities and the countryside, increasing physical activity levels and otherwise improving both physical and mental health. Visiting forest (woodland) environments can help lower blood pressure and pulse rate, reduce cortisol levels, and suppress sympathetic nervous activity. Additionally, children growing up in green spaces have a lower risk of psychiatric disorders later in life.

**Economy** Aside from their value from contributions to health and wellbeing (it is estimated that universal access to good-quality greenspace would save the NHS £2.1 billion a year), trees provide numerous other economic benefits that make them worthwhile investments: Green environments increase businesses' patronage by 30-50% and willingness to spend by 10-50% Green environments improve productivity by 15%, reduce staff turnover by 18% and reduce the amount of sick leave taken by 10-23%. Quality of life is a factor in the relocation of 57% of business executives and people pay 3-7% more to live on tree-lined streets, and so trees can support inward investment. Woodlands also reduce flash flooding, thereby reducing the economic (and social) impacts of flooding events and can provide a range of other sustainable products (such as timber and fuel) that support a thriving local economy. Additionally, woodlands offer recreational opportunities, such as walking routes, mountain biking trails and activity centres, which can bring in both direct and indirect employment.

**Mitigating & Adapting to Climate Change** Trees and woodlands will be crucial in both mitigating (by sequestering and storing carbon) and adapting to climate change. The UK Committee on Climate Change (CCC) recognises the role that trees and woodlands will play in reaching net zero and recommends that at least 30,000 ha of woodland should be created annually to do so. Locally produced wood can also provide a low- or zero-carbon source of fuel by offsetting fossil fuels, and timber can act as a lower-carbon construction material than steel and concrete. Trees and woodlands will also be critical in adapting to climate change: providing corridors for wildlife to travel through to adapt to a warmer climate, keeping rivers cool, providing shade and cooling in hotter urban areas, and reducing the severity of flooding caused by climate change.

**Nature** From ancient woodlands to hedgerows and urban parks, trees are a vital element of ecosystems, providing food, habitat and nesting sites for a huge number of species. Sixteen species of bird on the BTO's red list are woodland species and rare populations of greater and lesser horseshoe bats are dependent on trees and hedgerows for foraging; and countless species of insects rely on trees and woodland.

[37] Available at: https://forestofavontrust.org/forest-of-avon-plan/the-evidence-base-for-this-strategy

**Water Management** Trees and woodlands are crucial to delivering an improved water environment. Well managed riparian habitat that includes trees is critical for both in-river wildlife (for example, through the shading of rivers) and terrestrial wildlife (through providing ecological corridors), and for improving water quality.

**Soil & Agriculture** From hedgerows to agroforestry, trees are a vital component of sustainable agricultural systems: protecting soil (trees and other vegetation can reduce soil erosion and soil loss), shading livestock, and increasing yields.

**Culture** Apart from the more tangible benefits outlined above, trees also have strong cultural and spiritual value, providing a sense of place and bringing communities together. Our ancient and veteran trees may have been around for hundreds of years, providing a continued sense of identity.

# Appendix 2: Agreed West of England Principles for Tree & Woodland Establishment and Management (Abridged from p57-65 of the Forest of Avon Plan. Complete list available at [38].)

**Principles providing high-level guidance for those wanting to plant trees, create new woodland and manage existing woodland are set out in detail in the Forest of Avon Plan approved by BCC. Produced and consulted upon by the West of England Tree & Woodland Group they align with and complement regulations including the Forestry Act 1967, Environmental Impact Assessments and Habitats Regulations, as well as existing guidance and best practice, such as the UK Forestry Standard or guidance produced by industry leaders.**

## Ecosystem Services

### Nature's Recovery

- The creation of new woodlands should, where possible, be close to and join existing woodlands, to assist in the creation of a coherent ecological network in the West of England. The Tree and Woodland Priorities by Landscape Character Area included in this document, which reflect the West of England Nature Recovery Network and other evidence, should be used to guide tree planting and woodland creation.
- Woodland should not be planted on existing ecologically valuable grassland, which is an important and vulnerable habitat. Additionally, areas identified as being within the strategic grassland network for the West of England should be prioritised for grassland creation and conservation.
- A range of wooded habitats, including woodland, hedgerows, riparian corridors, open wood pasture and urban trees, will strengthen the ecological network.
- The possibility of creating mosaic habitats (an area or site comprised of multiple habitat types) when creating woodland should be considered. In areas that are within two or more of the woodland, grassland and wetland strategic networks of the West of England West of England Nature Recovery Network, mosaic habitats should be prioritised.
- Natural colonisation (otherwise known as natural regeneration) should be considered as an (often cheaper) alternative to tree planting, as it can result in the establishment of trees better adapted to local conditions and provide a composition of trees more suited to native wildlife. Natural colonisation can be especially effective next to existing ancient or seminatural woodland as a means of expanding the most valuable woodland habitats.
- Any woodland planted should be an appropriate mix of species for the site and reflect the management objectives in question. Native species should be planted where possible, especially when nature's recovery is the priority, although the use

[38] Available at: https://forestofavontrust.org/forest-of-avon-plan/how-do-we-get-it-right-the-principles

of more southerly seed sources may be appropriate as part of adaptation to a changing climate.

- Woodlands, once established, should be managed to deliver objectives including maximising benefits to wildlife, and especially of specialist woodland species that are threatened.
- The planting of hedgerows, including but not limited to farmland, should be used to connect existing hedgerows and woodland where woodland creation is not possible. Hedgerows or wider shrub belts, if planted, should be of a suitable mix of native species and maintained in a way that maximises benefits to wildlife. When introducing more southerly species, measures should be taken to avoid introducing pests and diseases. The ideal mix may depend on the location where the hedgerow is planted. Hedgerows should also include irregularly spaced trees, which can be promoted through design codes.
- Riparian habitat (habitat on and alongside the banks of rivers) can act as natural ecological corridors through which wildlife can travel, as well as enhancing in-river ecology, providing natural flood management and improving water quality. Trees and woodland are a vital component of riparian (i.e. riverbank) habitat. BART's approach to tree planting should be referred to inform riparian habitat creation and management.
- As well as better managing our existing woodlands for wildlife, we need to protect our trees and woods from being lost to development and other pressures. Ancient woodlands, and ancient and veteran trees are afforded protection against development because of their irreplaceable nature (per NPPF para 175c); planning decisions must enforce this. Beyond ancient, wooded habitats, no woodland should be lost, except where there is an environmental gain to a changed land use (e.g. removing trees on peatland or wetland) and, in this case, the EIA process must be followed and voluntary replacement planting should be carried out as good practice. Tree planting should not be used as compensation for the loss of woodland; compensatory measures can take decades to become established, representing lost years of crucial carbon storage and wider environmental benefit.
- Individual and groups of trees in rural or urban areas contribute much to ecological networks as well as landscape quality, cultural identity, and health and wellbeing. As capacity allows, advice should be provided and good practice promoted to landowners to safeguard, care for and, when appropriate, replace these trees. Accepting that urban trees are part of a dynamic system, community groups can have an important role in championing individual trees and building support for new ones.

### Climate Change

- Planting trees and creating woodland, including allowing woodland to regenerate naturally, are recognised as an effective means of sequestering carbon and building resilience to the impacts of climate change in response to the Climate Emergency.
- Retaining, restoring and enhancing existing woodlands should be used as an effective way of storing carbon. Protecting existing woodland, especially ancient woodland, is important for maintaining stored carbon, and well-managed, healthy woodlands store more carbon than poorly managed ones.

- Much of the carbon sequestered by woodland trees is stored in the soil; therefore, avoiding soil disturbance is important in maximising carbon sequestration. Continuous cover management regimes avoid the release of carbon back into the atmosphere through planned thinning and reduced disturbance of soil.
- Although it is recognised that coniferous species can sequester carbon more quickly than native broadleaved species, maximising the carbon storage potential of woodland should not prejudice nature's recovery, especially in ecologically sensitive areas and within the Nature Recovery Network. The principle of the right tree in the right place should be followed, which is key to providing more and better-connected habitat for wildlife (see above), and for a healthy, functioning natural environment.
- Native or naturalised broadleaved species that are good for carbon sequestration in the West of England include aspen, beech, wild cherry, and sycamore, although the impacts of climate change on the future viability of these species (especially beech and sycamore) needs to be considered.
- Productive woodlands, including the provision of wood fuel, the use of timber in construction, and the use of trees to create other products (such as those that can be made through coppicing) should be considered as ways of decarbonising parts of the economy – see 'Sustainable Woodland Economy'.
- Genetic diversity (evolved through natural regeneration), as well as species diversity, is understood to be important in ensuring the resilience of woodlands to a changing climate.
- Trees and well-connected woodland should be used to build resilience to climate change and to adapt to a changing climate through, for example, providing shade and cooling effect in urban areas, managing flood risk, and enabling woodland species to travel through the landscape.

### Natural Flood Management

- The potential for woodland to provide natural flood management should be considered when identifying locations for tree planting and woodland creation, especially in upland areas and in appropriate parts of the floodplain. The WENP Ecosystem Service Opportunity Map: Water Quantity, shows areas where the opportunities are greatest to modify the land so it can absorb and store water more effectively and should be used to inform the use of woodland for natural flood management.
- 'Working with Natural Processes' identifies areas of potential for additional floodplain woodland, riparian woodland and catchment woodland within England and Wales. As indicated in the Working with Natural Processes Evidence Directory, using the correct combination of measures in the right place can help to slow flood peaks and also achieve other benefits at the same time, including improving water quality; reducing soil erosion and sedimentation of lakes and rivers; increasing carbon capture and storage; and creating new habitat to restore biological diversity.
- Additionally, expert advice (from, e.g. the Woodland Trust, the Forestry Commission, the Bristol Avon Catchment Partnership, Bristol Avon Rivers Trust, or the Environment Agency) should be sought to identify the optimal location and planting/regeneration scheme to provide maximum benefits to flood management.

## Health, Wellbeing and Culture

- The location of new woodland and tree planting should be chosen considering the potential benefits that woodlands and trees provide to people's health and wellbeing, and to promote equitable access to woodland to all populations, irrespective of socio-economic status.
- Landscape character and important views should be considered carefully when establishing new trees and woodlands, with certain areas recognised as being unsuitable for large-scale woodland creation. The Tree and Woodland Priorities by Landscape Character Area account for this, but more detailed guidance as contained in Landscape Character Assessments should also be consulted where appropriate.
- The planting of trees and woodland in urban areas, including in parks and streets, is recognised as especially important to people's health and wellbeing. Suitably chosen urban trees can contribute much to people's physical wellbeing through providing a cooling effect, providing shade and reducing air pollution. The presence of and engagement with trees close to where people live also provide important mental health benefits.
- It is recognised that areas with low canopy cover and deprived areas will benefit most from tree planting, which can help address issues of inequity. Therefore, canopy cover and the Index of Multiple Deprivation should be used to prioritise tree planting, especially in urban areas providing shade and reducing air pollution.
- The Woodland Trust's Woodland Access Standard should also be applied, which aspires that: no person should live more than 500m from at least one area of accessible woodland of at least 2ha in size; and there should also be at least one area of accessible woodland of at least 20ha within km of people's homes.
- The involvement of local communities in tree planting, maintenance and management can provide additional benefits to people's physical and mental wellbeing and broaden the constituency of support and action for trees and nature.
- Public rights of way as well as other paths should be accommodated and enhanced within the design of new woodland, and new routes created to extend and improve local access networks, whilst reflecting wildlife, management and/or safety considerations. New public access should not be provided in SSSIs, Ancient Monuments and other sensitive sites without the approval of the statutory regulatory body.
- Managing Woodlands for Ecosystem Services

## Sustainable Woodland Economy

- Management techniques that provide an income source while providing other benefits for people and wildlife should be considered as a way of enabling sustainable management of woodland. This could include, but is not limited to, timber production, coppicing, agroforestry including wood pasture, wood fuel production, the use of grazing animals for food, recreation, wellbeing activities and forest schools.
- The effect of any potential management technique used to provide an income source on wildlife and people must be considered– not all woodlands will be suitable for all management techniques.
- There is significant demand for timber; currently, the UK imports the vast majority of its timber. However, due to the impact of grey squirrel populations among other factors, it is difficult to grow broadleaved species for timber; coniferous forests

therefore currently provide the most viable method of timber production. However, productive woodland managed for timber can be managed sympathetically to biodiversity and other ecosystem services. Continuous cover management regimes, which attempt to mimic natural processes, are effective for production and biodiversity aims, and areas of native woodland managed for biodiversity objectives should be integrated into productive woodlands. The UK Forestry Standard is a good source of guidance.

- Coppicing should be considered as a management technique that can produce woodland products, provide an income source and benefit wildlife (including many threatened species).
- Woodlands can provide opportunities for active recreation, which can make them accessible to a broader range of people, provide employment and bring in income to enable woodland management (and establishment). As well as walking trails, recreational activities that may be suitable for parts of new woodland include mountain biking and adventure sports such as ziplining or obstacle courses. The impact of these activities on woodland ecology should be minimised and fully addressed in site management plans if they are pursued.
- Large scale woodland creation should generally be avoided on high-quality agricultural land, and especially on Grade1 and 2 agricultural land which can be used for sustainable food production. On these sites, better management and expansion of hedgerows, field corners and in-field trees still provide excellent opportunities for improving soils, ecological connectivity, water management and carbon storage.
- Agroforestry may be a suitable management technique to combine food production with tree planting in areas of high agricultural productivity and is relevant to both arable (silvoarable) and grazing (silvopasture) systems. The Agroforestry Handbook provides useful, practical guidance on this approach.
- Orchards have been traditionally important in the West of England. Well-managed, they can provide a source of sustainable food while benefiting wildlife and sequestering carbon. Existing traditional orchards should be conserved, and new ones created where possible.
- Grant schemes should be considered as a means of financing tree planting or natural regeneration. Additionally, there is potential for funding for habitat creation through Biodiversity Net Gain and agricultural subsidies under revised agricultural policy.

### Sustainable Woodland Management

- Management techniques should be mindful of the site in question and especially of neighbouring habitats. It is usually advisable to try to extend existing habitats through suitable management and creation.
- Continuous cover management regimes, as well as providing important water attenuation and biodiversity benefits, are key in maintaining species and age diversity, and avoid the release of carbon back into the atmosphere through planned thinning and reduced disturbance of soil.

- To enable effective natural regeneration/ colonisation, a diverse woodland, a prevailing wind, and suitable soil will be required. Additionally, prevention of overgrazing from deer will usually be necessary and other management interventions may be required over time to ensure species diversity.
- If tree guards are used when planting trees, they should be removed when they split and before they start to disintegrate. Used tree guards should be removed from the site to protect local wildlife and disposed of responsibly (ideally by recycling).
- Weeding around a tree may be necessary to ensure the survival of planted trees. If doing so, 'natural' methods for suppressing weeds (e.g. using mulch, such as bark chips or straw bales) should be used in preference to the application of chemical-based products, which can be detrimental to wildlife.

### Ash Dieback

- Trees affected by ash dieback should be felled only when there is a material safety risk, a clear future safety risk (e.g. for roadside trees or high-use areas), or as part of normal silvicultural operations. Organisations will have their own definition of what presents a material safety risk, but the Woodland Trust's zoning approach or the Quantified Tree Risk Assessment are recommended. Otherwise, and where financially viable, trees affected by ash dieback (including dead trees) should not be felled to enable resistance to ash dieback to develop among the species, and so that dead wood can provide value to wildlife.
- Trees felled through ash dieback should be replaced using a suitable mix of native broadleaved trees to ensure no net loss (to wildlife and people); again, expert advice on an ideal replacement mix should be sought. Each ash tree lost should be replaced with at least three new trees for a large ash tree, two for a medium tree, and one for a small tree. More detailed advice on replacing lost ash trees is available at this link, and further information on dealing with the disease is provided by the Tree Council's Ash Dieback Toolkit.
- In woodlands with high levels of natural regeneration of species other than ash, it may be appropriate to replace ash with natural regeneration if there are interventions to selectively clear competitive vegetation, control pests and/or manage any public access.
- Everyone involved in the felling of trees – whether it is an owner felling trees themselves or employing others to do the work, such as an agent, timber merchant or contractor – must ensure that a felling licence or other permission has been issued before any felling is carried out.
- When felling ash trees, organisations should engage with the public to ensure understanding of why felling is taking place and to discuss the risks of tree disease more widely. Other Pests and Diseases.
- Ash dieback is not the only threat to our trees. Other diseases with significant potential impacts on trees in the West of England currently include Sweet Chestnut Blight, Phytophthora, Oak Processionary Moth and Acute Oak Decline. There are many further diseases, generally with less impact at the West of England level, of which woodland managers should be aware.
- Due diligence in biosecurity practices – not just in sourcing trees (as in the next section) but also in woodland management – should be practiced to best manage tree disease.

- Sightings of tree diseases should be reported to TreeAlert – the Forestry Commission's online tool where sightings of dangerous tree pests and diseases should be reported – to best support the national response.
- Observatree is a tree health citizen science project which trains volunteers to spot pests and diseases, thereby helping tree health authorities identify and manage outbreaks early.
- Oak Processionary Moth is a threat to human health as well as oak trees. This non-native moth, accidentally introduced in 2005, strips oaks trees of their leaves, leaving them vulnerable, but also poses a health risk to humans by causing rashes and breathing difficulties. – The public must be made aware not to touch or approach oak processionary moth caterpillars or their nests. – There are currently special restrictions on the movement of oak plants to minimise the risk of introducing OPM to new areas. – Any sightings should be immediately registered to TreeAlert.

### Preventing Establishment of Disease, Pests and Invasive Species

- Woodlands are far more resilient to pests and diseases if the principle of diversity of species, age and structure is followed. Effective and sustainable woodland management to create this diversity is critical.
- Natural regeneration is recognised as being important in building resilience and genetic resistance to disease in native tree species.
- To prevent future tree diseases, trees to be planted should be sourced from tree nurseries that produce trees sourced and grown in the UK/ Ireland where possible. If trees are imported from elsewhere, they should be from nurseries that use biosecurity measures that aim to reduce the risk of diseases being imported (such as quarantining trees for a season before planting).
- Organisations should take appropriate biosecurity measures when planting trees and managing woodland to minimise the risk of existing invasive species (such as rhododendron) establishing themselves in existing and new woodland. Additionally, already-established invasive species (including rhododendron) should be removed from woodland where possible.

### Deer and Squirrel Management

- Deer and grey squirrels can damage newly planted trees and those which are becoming established. Control may be necessary, see full Forest of Avon Plan for guidance.

# Appendix 3: National and Regional Policy Context

## National

Defra's **25 Year Environment Plan 2018 (25 YEP)** [39] recognises the importance of ecosystem services provided by trees and highlights the importance of working strategically and in partnership to increase tree canopy cover. It also reiterates the Government's support for the national programme of **Community Forests** (p48), including the **Forest of Avon** a focus for partnership working for trees in and around Bristol since 1992. The **Environment Act 2021**[40] enshrines much of the 25 YEP in law, with improved legal protection for existing trees and woodlands, including a duty on local authorities to consult on the felling of street trees (s115). It also requires local authorities to develop Local Nature Recovery Strategies, (as exemplified by the West of England Nature Recovery Network mapping). It also mandates developments to achieve at least 10% **Biodiversity Net Gain** (BNG) (measured using Natural England's biodiversity metric) and that habitats so created will need to be secured for at least 30 years through a formal agreement.

The **National Planning Policy Framework (NPPF)** [41] recognises the importance of trees and overall, trees contribute towards 11 of its 13 objectives. In particular, the NPPF (Section 15) requires that planning authorities produce plans to enhance the natural and local environment and that development resulting in the loss or deterioration of ancient woodland and ancient or veteran trees should be refused, unless there are wholly exceptional reasons. It also states (Section 12) that they should prepare design guides or codes consistent with the national guidance. Under Nature, the **National Model Design Code Part 2** [42] includes specific recommendations for Green Infrastructure (N1, p18) and N3 Biodiversity including (N3iii, p26) Street Trees.

The **Climate Change Act 2008**, as amended in 2019 [43], commits the UK to a net zero emissions target by 2050. The **Nature for Climate** programme announced in the March 2020 Budget is a practical expression of this, with a target to plant 30,000 hectares per year across the UK by 2025. The **England Tree Action Plan 2021** [44] sets out policy priorities to deliver the government's target, support woodland management and increase public engagement with trees and woodlands. The NfC programme is funding the **Forest of Avon (FoA)** to deliver c.350 ha of individual trees and woodland in Bristol and the West of England by 2025.

The UK is committed to delivering the **Sustainable Development Goals (SDGs)** [45], which have been adopted by all UN Member States in 2015 to 'end poverty, protect the planet and improve the lives and prospects of everyone, everywhere'. Trees and woodland are important in delivering many of the 17 SDGs, including 'good health and wellbeing', 'climate action' and 'life on land'. All actions in Bristol's **One City Plan** are mapped against achieving these goals.

[39] Available at: https://www.gov.uk/government/publications/25-year-environment-plan

[40] Available at:https://www.gov.uk/government/news/world-leading-environment-act-becomes-law

[41] Available at: https://www.gov.uk/government/publications/national-planning-policy-framework--2

[42] Available at: https://www.gov.uk/government/publications/national-model-design-code/national-model-design-code-part-2-guidance-notes-html-accessible-version

[43] Available at: https://www.legislation.gov.uk/ukdsi/2019/9780111187654

[44] Available at https://www.gov.uk/government/publications/england-trees-action-plan-2021-to-2024

[45] Available at: https://sdgs.un.org/goals to-2024

**Urban Greening Factor for England-Development and Technical Analysis (2023)** sets out a headline Green Infrastructure (GI) standard, based on:

a. a target factor score that sets a minimum proportion or percentage of greening for a particular site, area or land use; and

b. a schedule of surface cover types and associated factor weightings that are used to calculate the score. Tree planting, incorporating SUDS and open green space, makes an important contribution to this target.

The **UK Forestry Standard (UKFS) 5th Edition 2023** [46] is the reference standard for sustainable forest management, ensuring that international agreements and conventions are applied in the UK. It underpins the principles set out in Appendix 2.

The **Trees and Woodland Strategy (TAWS) Toolkit for Local Authorities 2022** [47] is a step-by-step guide for Local Authorities and their stakeholders to develop and deliver a local tree strategy. It provides practical guidance and case studies from around the country including the WoETWS.

## West of England

The **West of England Joint Green Infrastructure Strategy 2020** [48] **(JGIS)** sets out an agreed way for BCC, other local authorities and the **West of England Combined Authority (WECA)** to help address climate and ecological emergencies and the location of housing, jobs and infrastructure.

**The Forest of Avon Plan: A Tree and Woodland Strategy for the West of England 2021** [49] **(FoAP)** was produced in response to Strategic Action S5 of the JGIS, is endorsed by the **West of England Nature Partnership (WENP)** and has been adopted by BCC. It also forms the updated **Forest of Avon Community Forest Plan**. The FoAP sets out a long-term vision for trees and woodlands across the West of England, with a 5-year action plan and agreed principles to guide delivery. It also describes tree and woodland priorities for landscape character areas across the region, drawing on West of England Nature Recovery Network mapping . Greater Bristol S5.19 and parts of 5.12, 5.15 and 5.22 are particularly relevant. The agreed West of England principles for trees and woodlands form part of this document and are included in Appendix 2.

**West of England Climate and Ecological Strategy and Action Plan (WECEAP) 2022** [50] sets out WECA's ambition that in 2030 the West of England is net zero carbon, that wildlife and the natural environment are in recovery, with their decline halted. Complementing BCC's existing plans and policies and reflecting strategies including the FoAP, the WECEAP sets out the investment the region needs from government. This includes (p34): providing capacity funding to produce Nature Recovery Strategies and their ongoing delivery; ensuring sufficient funding is available to deliver Biodiversity Net Gain; and increasing the funding available for the delivery of large-scale projects.

[46] Available at: https://www.gov.uk/government/publications/the-uk-forestry-standard

[47] Available at: https://treecouncil.org.uk/what-we-do/science-and-research/tree-strategies/

[48] Available at: https://www.westofengland-ca.gov.uk/what-we-do/environment/joint-green-infrastructure-strategy/

[49] Available at: at: https://forestofavontrust.org/forest-of-avon-plan/what-is-the-plan-in-your-area

[50] Available at: https://www.westofengland-ca.gov.uk/about-us/our-strategy/

## Bristol

The policies and plans highlighted include the **One City Plan** [51], which sets out an ambition to double tree canopy and the abundance of wildlife. The **One City Ecological Emergency Strategy** [52] outlines key steps to achieve 30% of land in that is managed for nature. The **One City Climate Strategy 2030** [53] sets out a plan for a carbon neutral future and a climate resilient city.

The **Bristol Local Plan** [54] sets out policies for green infrastructure and biodiversity in new development requiring developers to maintain and incorporate important existing green features such as trees. Policies for **Biodiversity Net Gain (BNG)** [55] , expected to come in force from November 2023, will set a standard to protect existing biodiversity, and where loss is permitted, achieve 10% more nature. The **Bristol Tree Replacement Standard** [56] will apply where BNG does not. The requirement for certain development to achieve an **Urban Greening Factor** [57], will set a minimum standard for the provision of green infrastructure to include provision of trees and natural drainage systems. A specific policy for Trees requires developers to provide tree-lined streets and addresses how to ensure existing safe and healthy trees are kept when new developments happen. The requirement for local authorities to consult on the loss of street trees will be introduced via the **Environment Act 2022** (which also encompasses the requirement for BNG).

Bristol lies within the Forest of Avon Community Forest, and the FOAP 2021 [58], sets out a long-term vision for trees and woodlands across the whole region and clear guiding principles for planting and caring for them. These principles underpin the delivery of this strategy.

Bristol City Council's new P**arks and Green Spaces Strategy** [59] sets a clear target to increase tree cover and improve the management of existing woodland habitats. The BTWS uses the Tree Impact Criteria (TIC) to prioritise tree planting and wider activity where citizens will gain greatest benefit.

[51] Available at: https://www.bristolonecity.com/about the-one-city-plan/

[52] Available at: https://www.bristol.gov.uk/council-and-mayor/policies-plans-and-strategies/energy-and-environment/bristol-ecological-emergency

[53] Available at: https://www.bristolonecity.com/climate/

[54] Available at: https://www.bristol.gov.uk/residents/planning-and-building-regulations/planning-policy-and-guidance/local-plan/local-plan-review

[55] Available at: https://naturalengland.blog.gov.uk/wp-content/uploads/sites/183/2022/04/BNG-Brochure_Final_Compressed-002.pdf

[56] Available at: https://www.bristol.gov.uk/residents/planning-and-building-regulations/planning-policy-and-guidance/supplementary-planning-documents-practice-notes-and-other-planning-guidance

[57] Available at: https://publications.naturalengland.org.uk/publication/5846537451339776

[58] Available at: https://forestofavontrust.org/forest-of-avon-plan/

[59] Available at: https://eur03.safelinks.protection.outlook.com/?url=https%3A%2F%2Fservices.

# Appendix 4: Funding (2024)

Substantial **Trees for Climate grant** [60] has been secured by the FoA for 5 years and the charity is working with BCC to fund a range of specimen tree, orchard, hedgerow and woodland planting. [DETAILS TBC]. Alongside this, the **Forestry Commission's (FC's) England Woodland Creation Offer** [61] provides grants to create a UKFS compliant **Woodland Creation Design Plan** and for woodland planting at a range of scales. These schemes are coordinated across Bristol and the West of England to provide the best package of support for landowners.

Funding is also available under **Countryside Stewardship (CS)** [62] to create UKFS compliant 10-year **Woodland Management Plans** and once approved by the FC applicants to apply for CS Higher Tier payments to improve the biodiversity of woodland and/or make it more resilient to climate change. FC **Woodland Tree Health** grants can help to restock or improve woodland after tree health problems and payments are available for the costs of groups of landowners in addressing Ash Dieback Disease including surveys, road closures, a facilitator, restocking and maintenance but excluding felling.

FoA grants will be available until at least 2025 and FC grants are being integrated into the new Environmental Land Management Grant Scheme, which will provide support for trees and woodlands.

**Biodiversity Net Gain (BNG)** is an important opportunity if existing trees and woodlands cannot be safeguarded through enforcement of the BLP. Where proposed development necessitates the removal of a tree, then adoption of Natural England's BNG 4.0 metric provides opportunities for planting new trees both within the development and if not possible, at suitable locations nearby. The BTPP accompanying this document identifies areas in which tree planting will be of greatest benefit and it is critical that this informs planting and that 30-year care (or a covenanted longer period), is enforced through a planning agreement.

**Business Investment** has been secured by BCC, WT, FoA and others to support tree planting, woodland management and training in the city over a number of years. Given the importance of Bristol's businesses to the regional economy, it is important to work collectively to ensure that a higher proportion of CSR investments are made within the city's boundaries, delivering the priorities of the BTPP, including higher cost yet higher impact street trees. Bristol Avon **Catchment Market** [63] run by Wessex Water, Avon Wildlife Trust and Wiltshire Wildlife Trust may present opportunities to support this.

**Combined Authority £50m Green Recovery Fund (GRF)** [64] is supporting the FoA to deliver early actions of the WoETWS. This has included staffing capacity to deliver strategic projects (partly in Bristol) and create the Great Avon Wood on the fringe of the city. It is anticipated that further funding may be available under the GRF or Combined Authority Strategic Investment Fund to deliver projects in Bristol.

[60] Available at: https://forestofavontrust.org/for-trees/trees-for-climate

[61] Available at: https://www.gov.uk/guidance/england-woodland-creation-offer

[62] Available at: https://www.gov.uk/guidance/countryside-stewardship-get-funding-to-protect-and-improve-the-land you-manage

[63] Available at: https://www.bristolavoncatchmentmarket.uk/

[64] Available at: https://www.westofengland-ca.gov.uk/what-we-do/environment/green-recovery-fund/

**Woodland Trust (WT)** supports action for trees and woodlands in Bristol. Emergency Tree Fund is funding the Enduring Roots and New Shoots project. Coordinated by the FoA this is planting more than 24,000 native trees, increasing green space and boosting local ecosystems in Bristol and the wider West of England. It also provides school and community tree packs and provides periodic training on ancient woodland management.

**Business Sponsorship** has provided funding for BCC, FoA, WT, BTF and other partners for tree planting, care and engagement work. Recent funding has included [TBC]. There is a significant opportunity to work in partnership through this Strategy to run targeted campaigns to secure larger donations/ sponsorship/ long-term giving through Flagship projects. See Appendix 5.3.

**Voluntary Contributions**, e.g. number of OTPC volunteers, see annual reports here]

**S106 Agreements** for permitted development involving the loss of trees has created funds across the city for tree replacement. Currently standing at approximately £800,000 these are drawn down when suitable tree planting sites are identified and added to when further S106 Agreements related to trees are made.

**National Lottery Heritage Fund's 2023-2033 Strategy's** [65] investment principles would support strategic partnership bids with a strong community dimension, which address issues including landscape and habitat recovery, adaptation to climate change and reducing barriers for people under-served by heritage.

[65] Available at: https://www.heritagefund.org.uk/about/heritage-2033-strategy/overview

# Appendix 5: Selected Case Studies in Bristol

### 1. Bristol is pioneering approaches to agree locations for urban trees with communities.

**These include:**

**Bristol's Green Streets** In 2019, BCC secured funding from the FC to help plant 590 street trees in 10 plots in 10 wards with low tree canopy cover. Following service checks and working with the FoA and BTF Tree Champions, letters were delivered to residents closest to the tree planting locations with visualisations of three different mature tree forms suitable for street locations. Comments were invited via e-postcard and over 100 replies were received from people in support of tree planting, with 65 people volunteering to water trees. In response to feedback, the position of some proposed planting was moved, and the number of planting plots were reduced in others, with 590 trees being planted.

**BCC's East Bristol Liveable Neighbourhood Pilot** [66] In autumn 2022 people in Barton Hill, parts of Redfield and St George used a design toolkit of options for their neighbourhood, which identified pocket parks and street trees amongst priorities. A trial scheme will run in autumn 2023, including 10 trees in planters, to help people visualise the contribution trees will make to their streets. Trees will then be planted in agreed locations as resources permit.

### 2. Woodland Management Plans for Bristol's Woodlands

Between 2014-16 the FoA was contracted by BCC to produce WMPs for its heritage estates, parks and greenspaces with woodland. Attracting grant support from the FC, 10-year management strategies address issues such as invasion by ornamental shrubs, limited natural regeneration and creating space for ancient, candidate veteran and veteran trees. The FoA secured FC grants to fund an initial phase of work by BCC, also improving public access in key areas. Drawing down FC grants to renew these WMPs and prepare ones for other owners would help deliver a unified approach to woodland management (including Ash Dieback) across Bristol and to achieve economies of scale in management operations.

### 3. Business Sponsorship Case Study

BCC, FoA, WT, BTF supported by Greenhouse Communications ran a successful One Tree per Employee Campaign in winter 2019, with 68 companies making donations and considerable interest in volunteering. If PR support is available, annual campaigns linked to the Strategy offer considerable scope for funding, awareness raising and volunteering.

[66] Available at: https://eastbristolliveableneighbourhoods.commonplace.is/

# Appendix 6: Stakeholder Workshop Attendees

University of Bristol,

University of West of England,

Woodland Trust, Bristol Tree Forum,

Forest of Avon,

Bristol City Council (City Design Group, Tree Officers, Highways, Councillor for Public Health, Communities and the One City Plan),

BS3 Wildlife Group,

Bristol Walking Alliance,

Avon Needs Trees,

Friends of Troopers Hill/ Bristol Parks Forum,

Redcliffe and Temple / City Centre BID,

Plan 4 Trees,

North Bristol NHS Trust,

Natural History Consortium.