2050 Urban Forest Strategy

Our vision for all our trees and woodlands

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BCP Council

Foreword

Bournemouth, Christchurch, and Poole currently boast an extensive and diverse treescape. Our area has one of the highest levels of tree canopy covers found in a coastal urban conurbation in England.

Our wonderful trees and woodlands have a vital role to play in supporting our communities, and that's why I'm personally proud to bring forward the first Urban Forest Strategy for the BCP area. This recognises the huge role that trees will play as we tackle local and global climate challenges.

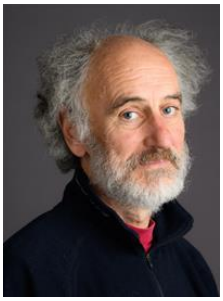
Although, we are fortunate to have a higher-than-average tree canopy cover, this valuable asset is under threat. The data gathered in the '**Seven Key Facts about our Urban Forest'** (see > **Appendix A**) show that people's access to trees is not fairly distributed across our conurbation. It also shows that new developments are failing to have a positive impact on our trees. The data tells a compelling story, where inaction will see a decline to our tree population, and this reinforces why this strategy is so vital.

This new strategy has been shaped by engagement with residents and key stakeholders and developed by a working group involving key council services and partners.

It underpins the need to care, support and invest in our trees. This is needed throughout our diverse network of streets, parks, and council-owned green spaces. It is also important to recognise the impact we can all make as individuals, by planting, nurturing, and protecting trees on privately owned land. This would include our workplaces, private gardens, and in our community-managed spaces.

Trees make a major contribution towards the health and wellbeing of our vibrant communities and by tackling our climate and ecological emergencies. Our trees have important roles in drainage combatting flooding, improving air quality, and in cooling and providing shade in our urban spaces: all of which helps us to enhance biodiversity in our local areas for ourselves and for future generations.

This inspirational and inclusive strategy sets out a framework for us all. It recognises the significant role the council and its partners will play over the coming years, and has culminated in the creation of a Tree Charter, where everyone can become a signatory and play a role (see > **Appendix D**). Working together we can ensure our urban forest continues to thrive and spread. I'm proud of this strategy and look forward to seeing it in action across Bournemouth, Christchurch, and Poole.



Councillor Andy Hadley

Portfolio Holder for Climate Response, Environment and Energy

Content

Introduction

Why we need a strategy

Few coastal conurbations can boast a treescape as diverse, extensive, and spectacular as Bournemouth, Christchurch and Poole's (BCP). Yet trees in urban settings don't just happen by chance. In many if not most instances, the successful integration of trees in and around towns is down to the care and foresight of people. In this respect, our conurbation has now come to a crossroads: nurture and manage this unique resource - or progressively lose it.

Pressures from new developments, works on highways, climate change as well as from a general lack of residents and business involvement in the management of our urban forest (see box below) would, if current trends continue, result in a deterioration of our tree population. A further weakness of our existing tree resource lies within its distribution: some of our communities lack access to trees and the benefits they provide. Fending off current threats and seizing opportunities for enhancing equitable access to tree benefits will require concerted efforts from council services, residents, landowners, as well as businesses across our conurbation.

i WHAT IS THE URBAN FOREST?

The **urban forest** encompasses all the trees that grow in and around an urbanised area. Every tree in our conurbation is therefore part of the urban forest, including those found on streets, in parks, in natural areas, in private gardens, and even those growing in the conurbation's rural fringes.

Who is this strategy for

This strategy provides a vision, key guiding principles, and priorities for action. These are designed to ensure that the decisions we make allow for all residents, visitors, and businesses in our conurbation to get the most from trees both now and in the future.

The vision and principles provide the basis for a 'Tree Charter for Bournemouth, Christchurch and Poole'. This will engage a broad spectrum of partners representing local communities, institutions and private organisations who are invited to sign up to the Tree Charter (see > **Appendix D**) and use it as a guide to make their own contribution to the enhancement of the local urban forest.

How this strategy was developed

The vision, principles and priorities for action captured in this strategy stem from two workstreams: one focused on data analysis and the other on stakeholder engagement.

A small team led by Anne Jaluzot, Green Infrastructure Planning Consultant, assumed responsibility for this work, under the supervision of a working group involving multiple council departments including planning, greenspaces and environment, and highways, as well as representation from Public Health Dorset.

Data analysis

The data analysis explored the:

- State, value and benefits associated with council-owned trees and woodlands.
- Extent, distribution, and recent changes in BCP's tree canopy cover (see box below), as well as where needs and opportunities for trees might exist.
- Impact housing developments have on local trees, based on a survey of a small sample of recently completed schemes.

i WHAT IS THE CANOPY COVER?

tree canopy is the layer of branches and leaves that you can see when looking up from under a tree. **Tree canopy cover** is the extent of the ground that is covered by tree canopy. It is often used as proxy to assess local tree provision and access to the benefits trees provide.

Findings from this work are summarised below under 'Seven Key Facts about Today's Urban Forest' and in > **Appendix A**.

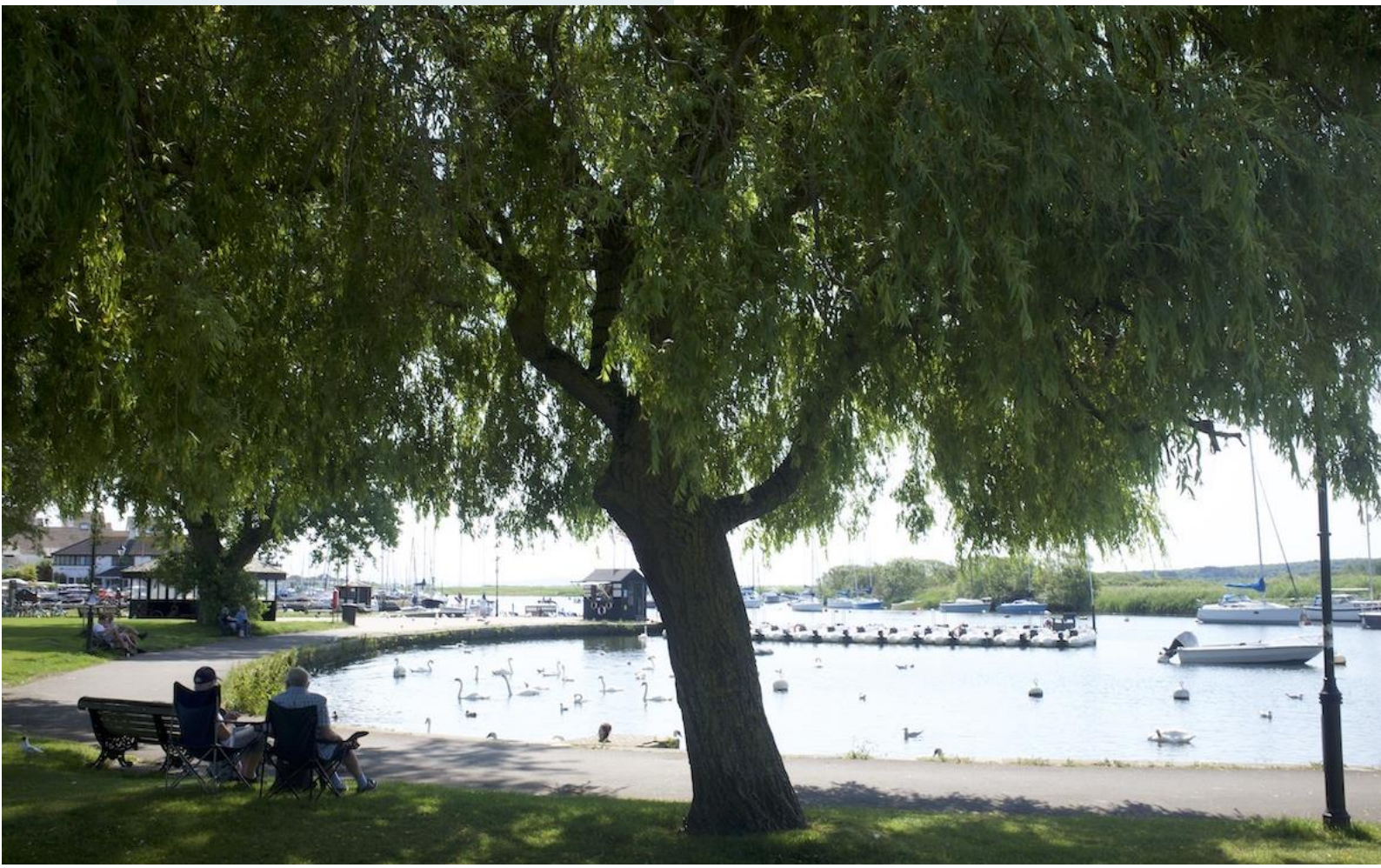
Stakeholder engagement

The stakeholder engagement involved:

- A Tree and Woodland Engagement Survey conducted from 24 October 2022 to 2 January 2023, which attracted 308 responses.
- Two half-day stakeholder workshops held on 29 September 2022 and 10 March 2023 with a cross-sector and multidisciplinary group of 50 participants.

Headline results from the survey and the workshops are summarised in > **Appendix B**.

Below: Weeping willows along Christchurch Town Quay. Image: Fred Ingarfield.



i WHAT BENEFITS CAN URBAN TREES REALLY PROVIDE?

Examples include:

- Oak trees, the top species in the council-owned tree populations, are a haven for **2,300 wildlife species**[i].
- Trees can reduce the ambient temperatures people experience during hot summers in urban settings by **5 to 10 Celsius degrees in Northern Europe**, depending on local conditions[ii].
- Trees have been found to **increase a willingness to travel to** and **spend time in shopping districts**[iii].
- The presence of well-maintained trees can increase residential **property values** by **2 to 9%**. Trees can also positively influence development viability by enhancing **speed of sale**, **absorption rates** and **acceptability of development to local communities**[iv].
- Neighbourhoods with walkable green spaces including tree lined streets have been found to **increase the longevity of senior residents** living in dense urban areas, independent of their age, sex, marital status, former occupations, and socioeconomic status[v].
- In the US, where an emerald ash borer (EAB) infestation has led to the loss of over 100 million of ash trees, researchers found that between 1990 and 2007, the EAB-induced canopy loss observed across 15 States was associated with an additional **6,113 deaths related to illness of the lower respiratory system, and 15,080 cardiovascular-related deaths**[vi].
- Trees also positively impact mental health: neighbourhoods with **more street trees** have repeatedly been found to be associated with **lower prescriptions of anti-depressants**.
- In Japan, studies of *Shinrin-yoku* or **forest bathing**, have found effects on **improved immune system response, lowered stress indicators, reduced depression**, and **lower glucose** levels in diabetics[vii].
- Tree canopies can intercept between **8% and 68% of rainfall** depending on the tree species and the rainfall characteristics[viii]. Impacts on flood risks reduction can be further enhanced when the soil surrounding trees is used for infiltration: both the amount and speed of runoff entering the sewer system can be significantly cut[ix].

References:

[i] See www.woodlandtrust.org.uk/trees-woods-and-wildlife/british-trees/oak-tree-wildlife/

[ii] Rahman, R.A., Ennos, R. (2016). *What we know and don't know about the cooling benefits of urban trees*. London: Trees and Design Action Group Trust. DOI/10.13140/RG.2.1.5122.2645

[iii] Wolf, K. (2007). The Environmental Psychology of Shopping: Assessing the Value of Trees. *International Council of Shopping Centers Research Review*. 14(3): 39-43. See: https://academics.lmu.edu/media/lmuacademics/cures/urbanecolab/module10/The%20Environmental%20Psychology%20of%20Trees%20-%20Assessing%20the%20Value%20of%20Trees%20-%20GREEN%20DESIGN%20Vol%2014%20No.%203.pdf

[iv] See paragraph 1.1.1 in: TDAG (2021). Trees, Planning and Development: A Guide for Delivery – Section One. London: Trees and Design Action Group Trust. See: www.tdag.org.uk/trees-planning-and-development.html

[v] Takano T., et al (2002) Urban residential environments and senior citizens' longevity in megacity areas: The importance of walkable green spaces. *J. Epidemiol. Community Health.* 56: 913-918. DOI/10.1136/jech.56.12.913

[vi] Donovan, G.H. et al (2013). *The Relationship Between Trees and Human Health: Evidence from the Spread of the Emerald Ash Borer*. American Journal of Preventive Medicine, 44: 139-145. DOI/10.1016/j.amepre.2012.09.066

[vii] See: https://depts.washington.edu/hhwb/Thm_StressPhysiology.html

[viii] See pp59-60 in: TDAG (2014) *Trees in Hard Landscapes: A Guide for Delivery*. London: Trees and Design Action Group Trust. Available at www.tdag.org.uk/trees-in-hard-landscapes.html

[ix] The Howard Street project in Salford provides a good example. See: https://www.cityoftrees.org.uk/project/howard-street-salford

State of the urban forest

A brief look into the past

Trees and woodlands have been ever present across the area from the earliest times. Records dating to the 16th Century highlight the extensive '*Holdenhurst Wood*' worked by 'Woodwards', whose duties included to provide wood fuel for local warning beacons. Holdenhurst wood covered a large area of what is now Bournemouth.

While there is evidence of very early human activity across the area, the towns of Christchurch and Poole predate Bournemouth by many centuries. This inevitably impacted on the ebb and flow of tree cover and species which ultimately provide the tree population we enjoy today. Together with geology, this history has resulted in a broadly North-South divide, forming two areas of distinct arboricultural character.

Broadleaf species are dominant in the more fertile former agricultural north while Pine

Above: Oak trees and other broadleaf species dominate the rural landscape around Charminster Road (c. 1900). Image: Unknown.

trees are a primary feature in the southern coastal strip and a component of the historically less cultivated heaths.

The Pine trees we have today are largely the remnants of planting dating back to the late 18th or early 19th centuries. Following the Enclosures Act of 1805, new private owners planted Pines to 'improve' the heathlands, generating income either from the forestry crop or from the development of a picturesque seaside spa advertising the health benefits of the scent of pine resin.

Below: Pine plantations on plots being sold for development at the junction of Pine Avenue and Southbourne Grove in Bournemouth (c. 1911). Notice the ornamental street tree planting conducted ahead of the development. Image: Baggaley Bros.

Seven key facts about today's urban forest

1. **Our conurbation has a good overall tree canopy cover (21.0%),** comparing favourably with other coastal urban local authorities**.**

2. **Information on tree species** is currently available only for Council-owned trees but **points towards a good level of diversity.**

3. **Pronounced neighbourhood disparities exist in people's access to trees and the benefits they provide** (see Fig. 1)**, which reinforces existing inequities in key factors impacting quality of life** (e.g., health, income, employment, access to nearby greenspace, exposure to excess urban heat etc.). To better identify where increasing canopy cover can improve the quality of life of those who need it the most, **a Tree Equity Score (TES) was calculated[1] for each ward** (see Table 1). The lower the score, the greater the need for canopy cover enhancement in the area reported.

Table 1. TES for each ward. A score of 100 indicates the ward has reached tree equity.

Newtown & Heatherlands	53
Winton East	56
Poole Town	67
Muscliff & Strouden Park	70
Burton & Grange	70
West Southbourne	71
Moordown	73
Oakdale	77
Boscombe East & Pokesdown	79
Boscombe West	80
Mudeford, Stanpit & West Highcliffe	81
Hamworthy	82
Wallisdown & Winton West	87
Christchurch Town	88
East Cliff & Springbourne	89
Kinson	89
Littledown & Iford	91
Penn Hill	94
Alderney & Bourne Valley	94
Redhill & Northbourne	95
Creekmoor	96
Parkstone	96
Canford Heath	97
East Southbourne & Tuckton	99
Bearwood & Merley	100
Bournemouth Central	100
Broadstone	100
Canford Cliffs	100
Commons	100
Highcliffe & Walkford	100
Queen's Park	100
Talbot & Branksome Woods	100
Westbourne & West Cliff	100

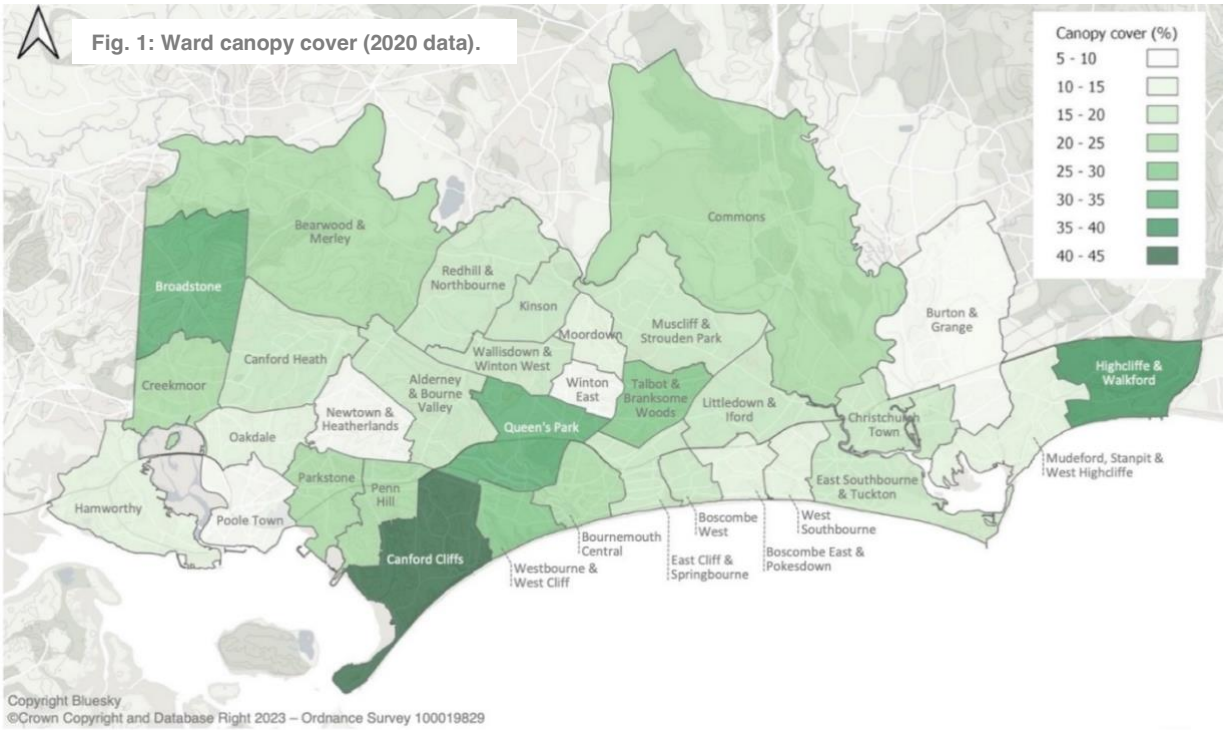


Fig. 1: Ward canopy cover (2020 data).

[1] See Appendix A for more details on methodology.

4. **The council is a key player: it manages 56% of the local canopy cover.** The estimated amenity value[2] of the Council's tree portfolio outside woodlands approaches **£1 billion.** Associated **yearly benefits in carbon sequestration, air pollution removal and stormwater management exceed £1.2M in worth.**

5. **The private realm, especially in residential areas, makes an unusually low contribution to the overall canopy cover, and this private tree cover is declining.** Only 5 out of our 33 wards have not experienced private canopy loss over the past decade.

6. **New developments are a key driver of private canopy losses.**

7. **Historic rates of street and parks tree removal and planting are contributing to a deficit in young trees on council land (see Fig. 18 in > Appendix A.). Combined with current private canopy losses, this will inexorably lead to an overall loss in tree cover in the long-term** (see Fig. 2, top right) **–** right when the area will need it most to attenuate the inevitable impacts of climate change**. Drastic changes are needed if these trends are to be reversed.**

For more details on each of these seven key facts, including figures providing insight into the underlying data, see > **Appendix A**.

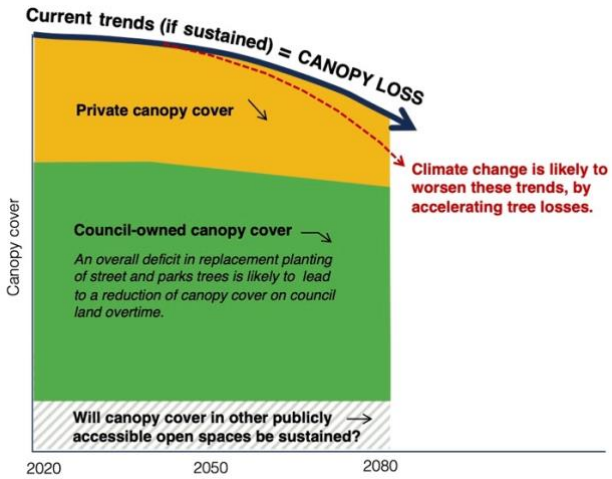


Fig. 2: 'Change Nothing' scenario.

i WHAT WE HEARD

On many points, the views gathered via the stakeholder engagement conducted to inform the development of the strategy echoed the data analysis findings.

This helped shape strong priorities for action notably in respect to tree equity (i.e.: better access to trees where they are most needed), tree inclusion in new developments, greening the highways, and providing opportunities for resident involvement.

See > **Appendix B** for more insights into the key findings from the stakeholder engagement process.

[2] The amenity value of a tree reflects both its replacement value (i.e.. how much it would cost to produce the same amount of wood) and the positive visual impact it has on the public realm (i.e. how much it positively shapes the local character).

By 2050…

Bournemouth, Christchurch and Poole (BCP) will be home to a sustainable urban forest delivering benefits to people and wildlife in every neighbourhood, according to its character and needs. Trees and woodlands, regardless of ownership, will be managed in balance with our valuable open heathland habitats as a critical infrastructure and a positive investment underpinning healthy lives in a nature-rich setting.

Our urban forest will attract widespread stewardship amongst residents, young and old, businesses, developers, landowners, council departments and other public, private, and not-for-profit partners.

Guiding principles

To achieve this vision, we seek to deliver on actions that will be guided by six principles:

> **1 | Fairness**
Grow the urban forest providing access to trees for all residents.

> **2 | Benefits**
Consistently utilise the full range of benefits that trees can provide.

> **3 | Resilience**
Nurture a healthy, diverse, and climate-resilient local tree population.

> **4 | Responsibility**
Build a committed and knowledgeable community of professionals and individuals caring for local trees.

> **5 | Value**
Co-ordinate and improve data and resources to optimise benefits from the local tree population.

> **6 | Innovation**
Use research to build a better future for trees and their uses.

We will monitor progress against a set of indicators measuring key aspects of urban forest sustainability. An overview of these indicators is provided overleaf.

Indicators of urban forest sustainability

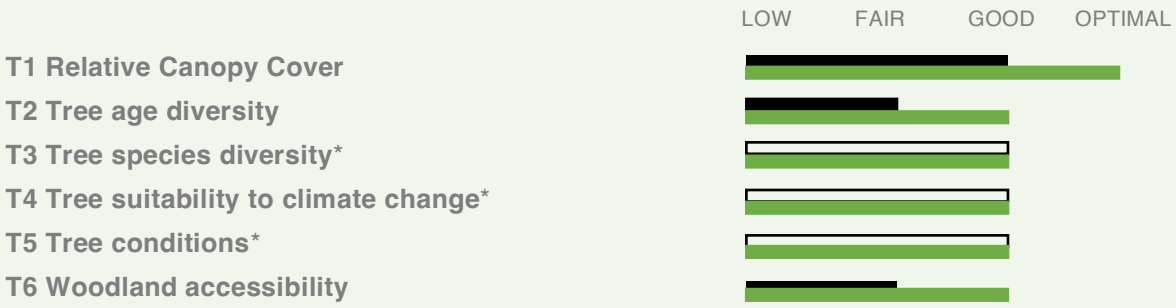
The indicators rely on urban forestry industry standards and good practice. They assess all three key parameters underpinning the sustainability of an urban forest:

– The characteristics of the tree resource (i.e., “Trees”).
– The management practices this resource is subject to (i.e., “Management”).
– The community setting which sustains and benefits from its existence (i.e., “Community”).

Information gathered throughout the development of this strategy informed our assessment of our current performance (♦) and has been further used to construct long-term goals to be achieved by 2050 (♦).

Trees

Although detailed information is not available for the whole tree population, available data points towards our tree resource being good. We aim to consolidate this position in the future.



*Outlines indicate incomplete data sources: the assessment only accounts for council-owned trees. The long-term target assumes availability of data for accounting for the whole tree population.

Community

Key professionals, landowners, and residents whose decisions can have a strong impact on the tree population are variably engaged in its management. We aim to address this weakness.

Management

Our tree management performance is uneven:

– The data we use is good in some areas and not in others.
– Our approach to planning has improved due to the compilation of this strategy, but progress is needed in how we resource the management of our trees and woodlands.
– Our arboricultural management practices are reported as fair overall. Considering the value of our tree resource and our ambitions to increase the benefits we derive from it, we aim to raise our arboricultural practices to an optimal level.
– We do not make the most of the benefits our tree resource could provide. This strategy aims to remedy this situation.

See > **Appendix C** for more details on this performance assessment framework, including definitions of:

– What each indicator assesses.
– What the associated four performance levels (i.e., ‘Low’, ‘Fair’, ‘Good’, ‘Optimal’) mean in practice.

Principle 1: FAIRNESS

Grow the urban forest providing access to trees for all residents.

Trees can make a big difference: Leeson Road (top) and Cranleigh Road (bottom) in Bournemouth share similar architecture and highway design, yet they look and feel very different. Images: Fred Ingarfield.

Priorities for action

1A. Develop, implement, and update Neighbourhood Tree Action Plans (NTAPs) as best practice mechanisms to facilitate tree planting and enhancements to existing trees where most needed.

1B. Integrate BCP's urban forest sustainability indicators and associated targets to the relevant council plans, policies, and performance frameworks.

1C. Embed in the forthcoming Local Plan a requirement for:
(i) All new developments to aim to retain trees onsite. Where loss is unavoidable, to mitigate the benefits loss with new tree planting onsite as a priority and/or offsite where onsite mitigation is not possible;
(ii) All new major developments to deliver, within 25 years of completion, as part of the onsite landscape provision:

- either a 10% increase of the existing onsite canopy cover, or
- a minimum 10% canopy cover of the site area (excluding priority habitats), whichever is greater.

Where there are significant ecological, historical, landscape or operational reasons to justify a lower onsite canopy cover enhancement, to agree with the Council an alternative approach to mitigate the benefits loss onsite and/or offsite.

1D. Enhance the administration of tree protection measures, by improving access to relevant information online, updating old Tree Preservation Orders (TPOs), and being proactive in creating new TPOs where needed on new sites.

1E. Strengthen the enforcement of tree planting and protection measures, based on a review of existing practices.

1F. Provide adequate replacement of public realm trees being removed focusing on establishing the right tree, in the right place and for the right reason.

Indicators

We will know that we are succeeding if we manage to reach the urban forest sustainability targets set for:

- Canopy cover (Indicator T1).
- Canopy cover measurement and goals (Indicator M4).
- Tree protection in new developments (Indicator M10).
- Public tree establishment (Indicator M11).
- Equity (Indicator M14).

See > **Appendix C** for a definition of each indicator and the associated target.
For more insight into **Principle 1: FAIRNESS** see overleaf.

Alternatively, jump forward to > **Principle 2: BENEFITS**.

Reducing discrepancies between neighbourhoods

Everyone needs good access to trees and green spaces. While increasing overall tree canopy cover is important, just as important is how well tree canopy is equitably distributed between residential areas. In our conurbation as in other cities, the urban forest is related to a range of socio-economic factors including the presence of less affluent areas, with limited access to nearby greenspaces that also tend to have less tree canopy cover. Reducing current discrepancies in tree canopy cover and increasing public access to woodlands is a priority of this strategy.

"*The prominence of trees in an area is a strong indication of how affluent it is. This is partly down to the availability of space, but it does mean the poorer neighbourhoods have a distinct lack of trees. There's surely a big opportunity to add more trees to streets even if that means losing the odd parking space.*" Comment from the Tree and Woodland Engagement Survey.

Adopting realistic canopy targets

Not every neighbourhood in our conurbation can accommodate trees to the same extent. Identifying the maximum canopy potential of an area is an important first step for setting a realistic canopy cover target. For BCP, pursuing an overall canopy cover of at least 25% by 2050 provides a robust goal (see Table 2 overleaf). This reflects our aspiration to:

- Protect and retain existing canopy cover within wards enjoying good tree equity (i.e., Tree Equity Score = 100).
- Secure in other wards a canopy cover equal to or greater than 30% of the ward-level maximum canopy potential (see top-right box).
- Maintain the character and ecological richness of the area, by continuing to protect its valuable open landscapes (heathlands).

This approach reflects the '3-30-300 rule' (see bottom-right box), as well as Natural England's recommendations on the need for local authorities to address canopy cover in their green infrastructure standards[3].

A further important step is to identify where actual opportunities to increase canopy cover lie and what they entail. This information will enable interventions to be planned. For this work however, a neighbourhood-scale approach is preferred, as explained on page 17 (see "Working with local communities on Neighbourhood Tree Action Plans').

i What is the ward-level maximum canopy potential?

Variations in built forms, building density and land uses mean that all wards in our conurbation do not have the same capacity to accommodate trees. For example, some neighbourhoods are home to extensive areas of designated heathlands that are important to preserve. To account for these constraints, we calculated for each ward the maximum extent canopy coverage could potentially reach by subtracting from the total ward area the footprint of:

- All existing buildings.
- All infrastructures that are incompatible with canopy overhang such as airports, rail lines and dual carriageways.
- Sports pitches.
- All protected natural sites, except woodlands.

i About the '3-30-300 rule'

The '3-30-300 rule' is a guideline proposed by the Nature Based Solutions Institute[4] based on evidence linking distances from homes and places of work, as well as the density of canopy cover, to many of the benefits urban forests can provide. The rule stipulates that:

- Everyone should be able to see at least 3 mature trees from their home and place of work or study;
- There should be a 30% tree canopy cover in each neighbourhood; and
- The maximum distance to the nearest high-quality public green space should be 300 metres. The United Nation Economic Commission for Europe (UNECE) has recommended widespread adoption of the rule by City Governments[5].

[3] See https://designatedsites.naturalengland.org.uk/GreenInfrastructure/GIStandards.aspx

[4] See https://nbsi.eu/the-3-30-300-rule/

[5] See https://unece.org/sites/default/files/2023-03/Urban%20forest%20policy%20brief_final_0.pdf

Table 2: 2050 ward-level canopy cover targets

	TES	2020 canopy area (sq.m)	2020 canopy cover %	Maximum potential canopy area	**2050 target: canopy area target (sq.m.)**	**2050 target: canopy cover %**
Newtown & Heatherlands	53	317,719	9.3	2,629,074	**788,722**	**23.2**
Winton East	56	123,583	9.1	1,016,641	**304,992**	**22.6**
Poole Town	67	251,835	7.9	2,216,180	**664,854**	**20.9**
Muscliff & Strouden Park	70	917,760	15.1	5,195,096	**1,558,529**	**25.6**
Burton & Grange	70	935,054	9.3	8,650,418	**2,595,125**	**25.9**
West Southbourne	71	196,694	11.9	1,260,799	**378,240**	**23.0**
Moordown	73	190,706	11.8	1,194,321	**358,296**	**22.2**
Oakdale	77	368,046	13.3	2,205,680	**661,704**	**23.9**
Boscombe East & Pokesdown	79	238,994	14.3	1,198,326	**359,498**	**21.5**
Boscombe West	80	182,758	15.9	820,950	**246,285**	**21.4**
Mudeford, Stanpit & West Highcliffe	81	577,099	13.2	3,265,844	**979,753**	**22.4**
Hamworthy	82	731,206	13.5	3,770,649	**1,131,195**	**20.9**
Wallisdown & Winton West	87	426,112	17.8	1,974,093	**592,228**	**24.7**
Christchurch Town	88	542,825	15.7	2,528,716	**758,615**	**22.0**
East Cliff & Springbourne	89	417,837	18.7	1,607,291	**482,187**	**21.6**
Kinson	89	1,099,256	18.0	4,623,732	**1,387,120**	**22.7**
Littledown & Iford	91	763,159	19.1	3,081,639	**924,492**	**23.1**
Penn Hill	94	523,498	20.6	2,003,769	**601,131**	**23.6**
Alderney & Bourne Valley	94	929,417	18.2	3,642,622	**1,092,787**	**21.4**
Redhill & Northbourne	95	497,649	20.0	1,858,068	**557,420**	**22.4**
Creekmoor	96	821,425	22.6	3,066,575	**919,972**	**25.3**
Parkstone	96	635,428	21.9	2,295,411	**688,623**	**23.8**
Canford Heath	97	990,763	17.6	3,616,788	**1,085,037**	**19.2**
East Southbourne & Tuckton	99	645,318	15.2	2,317,635	**695,291**	**16.4**
Bearwood & Merley	100	4,092,634	23.4	13,37,928	**4,092,634**	**23.4**
Bournemouth Central	100	549,414	23.8	1,716,065	**549,414**	**23.8**
Broadstone	100	1,928,209	31.2	4,262,685	**1,928,209**	**31.2**
Canford Cliffs	100	2,494,341	40.1	4,866,419	**2,494,341**	**40.1**
Commons	100	6,913,958	24.8	18,68,030	**6,913,958**	**24.8**
Highcliffe & Walkford	100	1,780,109	38.5	3,998,036	**1,780,109**	**38.5**
Queen's Park	100	751,331	28.4	2,210,477	**751,331**	**28.4**
Talbot & Branksome Woods	100	1,516,815	32.1	3,923,269	**1,516,815**	**32.1**
Westbourne & West Cliff	100	553,160	28.7	1,542,438	**553,160**	**28.7**
BCP-WIDE TOTAL		**33,904,113**	**21.0**		**40,392,068**	**25.0**

Below: Highcliffe beach, Christchurch. Image: Fred Ingarfield.

Protecting and extending the life expectancy of existing trees

The management of existing trees and woodland is critically important. The canopy cover target set in this strategy (see 'Adopting realistic canopy cover target' above) cannot be met if, where appropriate, existing healthy trees and woodlands are not retained and their future growth is not enhanced. In fact, in the next 20 years the greatest potential for canopy cover increase lies in the management of the existing stock. The management of existing trees should receive equal focus as tree planting. This is especially important in areas with low Tree Equity Score, and/or where the built environment limits the scope for new planting.

Working with local communities on Neighbourhood Tree Action Plans

The development of Neighbourhood Tree Action Plans (NTAPs) provides a workable scale to bring local communities together with built environment and urban forest management professionals in order to jointly identify, prioritise and deliver changes that will best meet local needs.

The NTAPs can:

- Map and prioritise opportunities for tree planting and enhancing the growing environment of existing trees.
- Identify tree management hotspots, provide insight into competing pressures at play and offer a resolution.

Links with other key area-specific council programmes should be made – especially where this might affect the space available and the long-term cost-effectiveness of tree survival and management (examples could potentially include: highway reconfigurations for traffic calming, cycling and walking enhancements, drainage and flood risk management, park and sports pitches programmes).

The NTAPs are best produced in partnership with local communities, schools, key landowners, and local businesses – dovetailing on-going community partnership activities undertaken as part of the council's Vibrant Communities programme. The multi-faceted meanings of trees to different people and unique make-up of each community needs to be recognised and shape interventions.

For maximum impact on reducing the canopy gaps described above, wards with the lowest Tree Equity Scores would be recommended to be amongst the first for the development of NATPs.

Enhancing tree outcomes from new developments

Another critical intervention for reducing discrepancies in canopy cover between neighbourhoods as well as between the public and the private realms is to enhance retention and, where appropriate, planting of trees in new developments.

To help curb the erosion of private canopy cover currently taking place across our conurbation because of new developments, this strategy recommends strengthening the tree and woodland policy in the forthcoming Local Plan:

- Where appropriate to landscape character and ecological context, all new developments should aim to retain existing tree canopy provision provided by trees found on or near the site.
- Where some canopy loss is unavoidable, compensatory provision equal to the amenity value of the trees lost as measured using the Capital Asset Valuation for Amenity Trees (CAVAT) method or a similar tool, should be secured for on- or off-site planting(s).
- All major developments should deliver within 25 years of completion as part of the onsite landscape provision either a 10% increase of the existing onsite canopy cover, or a minimum 10% canopy cover of the site area (excluding priority habitats), whichever is greater. Where there are significant ecological, historical, landscape or operational reasons to justify a lower onsite canopy cover enhancement, an alternative approach mitigating the benefits loss onsite and/or offsite should be agreed with the Council.
- The loss of trees protected by a Tree Preservation Order or by a Conservation Area for non-arboricultural reasons as a rule, should not be tolerated.

To ensure developments play their part in ensuring our canopy cover target for the conurbation is met, this strategy also recommends that large new developments be required to achieve a net onsite canopy cover enhancement as part of the landscaping

provisions provided for urban greening. The new planting that would be delivered should contribute to other key objectives including sustainable drainage and nature recovery. New streets and new car parking areas ought to be targeted for planting.

Strengthening the administration of tree protection measures for high-value trees and/or trees newly planted to make a development acceptable in planning terms will also contribute to better outcomes. This will require adequate input from arboriculture and landscape staff in the development management process. It will also require tree protection to be made an enforcement priority.

Keeping up with public realm succession planting

The canopy cover target set in this strategy relies on sustaining existing levels of tree coverage in wards enjoying good tree equity. In addition to good retention of existing healthy trees (or

adequate mitigation of losses incurred because of private development), this also requires sustained succession planting in the public realm – i.e.: the replacement of street or parks trees that have been or will soon be removed because they have reached their end of life.

It is important to bear in mind that in some circumstances, it may be necessary to fell a healthy tree that is growing to the detriment of the surrounding public treescape due to overcrowding, species dominance or for other reasons including for public safety reasons. This will allow a replant in a suitable location of the same or a different species to improve tree species and/or age diversity (See Principle 3: Resilience), or biodiversity (See Principle 2: Benefits).

Enhancing cohabitation with underground utilities

The tree canopy cover increase pursued in this strategy will create greater demands for underground space. In the densest, most urban parts of the conurbation, especially in the public realm, finding space to plant trees with a suitable root growing environment can be challenging. Access to good information on underground utility location will be important to support the NTAPs development process.

On development sites, better coordination of the siting of trees and utilities can be achieved during the design phase[6] – an outcome that requires promotion in the guidance and advice provided to developers working in our area (see Priority for Action 4B).

The restaurant pavilion in Poole Park was designed to retain existing mature trees. Image: Fred Ingarfield.

[6] Slater, D., Chalmers, R. (2022). Factors affecting the design coordination of trees and underground utilities in new developments in the UK, *Arboricultural Journal*, 44:1, 42-63, DOI: 10.1080/03071375.2020.1755185

Principle 2: BENEFITS

Consistently utilise the full range of benefits trees can provide.

Poole High Street. Image: Fred Ingarfield.

Priorities for action

2A. Enhance the council's and key landowners' adoption of treescape management approaches that support nature and wildlife recovery – including proactive woodland management planning and implementation.

2B. Pursue woodland creation prioritising the use of native species, where suitable opportunities exist, and funding is available.

2C. Enhance the use of trees to create attractive opportunities for enhancing children's play across the conurbation.

2D. Develop a vision for the use of trees in the Stour Valley River Corridor[7] greenspace project.

2E. Continue to pursue opportunities for new tree planting in parks, where appropriate.

2F. Increase the use of trees to reduce highways environmental impacts, such as flooding and overheating.

2G. Where possible, integrate trees in the design of highways.

2H. Work with partners in healthcare settings to better use the preventative and therapeutic benefits of trees.

Indicators

We will know that we are succeeding if we manage to reach the urban forest sustainability targets set for:

- Woodland accessibility (Indicator T6).
- Management of council-owned woodland (Indicator M9).
- Mobility and placemaking (Indicator M15).
- Nature recovery (Indicator M16).
- Water-sensitive urban design (Indicator M17).
- Public Health (Indicator M18).

See > **Appendix C** for a definition of each indicator and the associated target.

For more insight into **Principle 2: BENEFITS** see overleaf.

Alternatively, jump to > **Principle 3: RESILIENCE**.

[7] See: https://www.stourvalleypark.uk

"The inclusion or retention of trees is best approached as a means to an end rather than an end in and of itself" (Trees and Design Action Group[8])

Using trees with purpose

The list of benefits trees can deliver to their immediate surroundings is extensive: wildlife support, micro-climate enhancement, surface water management, quality of place, health and wellbeing, local food, community links, traffic calming, noise abatement and much more. Fully realising all or any of these benefits requires a concerted approach that exploits enabling factors and devises solutions to potential conflicts. Wide-ranging opportunities exist in our conurbation to better use trees to meet local needs and ambitions. These opportunities include:

Above: Example of standing deadwood in Pugs Hole, Bournemouth, retained to offer highly valuable habitat. Image: Anne Jaluzot.

Making treescapes work for nature

Trees and woodlands are a critical asset to support nature recovery. The contribution trees can make to supporting wildlife is at times boiled down to the sole question of tree species choice and the promotion of native species. Native species have an important role to play, particularly within and near our parks and natural green spaces as well as in our countryside locations, where the stresses associated with urban settings and climate change are likely to be less acute. However, in more urban locations, many European species, often considered as near-natives or naturalised species[9], are well suited to support wildlife found in the UK.

While non-native tree species can, if chosen with care, help support nature recovery objectives, Invasive Non-Native Species (INNS)[10] need to be avoided or removed. INNS can drive losses of native species through impacts such as predation, competition, introducing diseases and altering habitats. Other opportunities to support nature recovery with trees include:

- Protecting existing woodlands and enhancing woodland management for wildlife. Our conurbation is home to 15 of the 17 breeding bat species present in Britain[11], including some of the rarest. A significant proportion of this bat population is reliant upon the presence of woodland habitats.
- Creating new woodlands and expanding existing ones where appropriate, relying on natural regeneration and native species whenever possible.
- Proactively managing veteran trees and, where appropriate, applying veteranisation techniques to young tree stands (i.e., techniques intended to create or accelerate the development of decaying wood habitats in living trees through deliberate damage that mimics natural damage).
- Enhancing the management of dead trees and dead limbs for the wildlife they can support. The benefits of trees for biodiversity last well beyond their healthy life!

[8] TDAG (2012). *Trees in the Townscape: A Guide for Decision Makers*. London: Trees and Design Action Group Trust.
[9] A useful definition of these three terms is provided by the Royal Botanical Kew Gardens: https://growwild.kew.org/blog/uk-native-plants-and-fungi
[10] See www.gov.uk/guidance/invasive-non-native-alien-plant-species-rules-in-england-and-wales
[11] See: https://ibats.org.uk/uk-bats/

– Integrating wildlife-friendly underplanting with amenity tree planting (e.g., trees outside woodlands) wherever possible.
– Enhancing ecological connectivity along the local nature recovery network, using trees to link the urban nature recovery sites that are part of the Green Net defined in the BCP's Green Infrastructure Strategy[12]. As our conurbation borders on Hampshire and the New Forest National Park and the Isle of Purbeck in Dorset consideration must also be given to cross-boundary areas and for the provision of landscape-scale connectivity of tree and woodland cover.
– Managing our mature tree landscapes sympathetically to achieve a biodiverse and age rich canopy taking into account landscape character.

There are some circumstances where trees can harm local biodiversity. This is particularly the case in the open protected habitats found on the heathlands. In such context natural regeneration processes need to be controlled and trees removed.

Using the Stour Valley as a key spine for our urban forest

The Stour Valley River Corridor project[13] has the potential to create a green spine through the conurbation, linking prized destinations for recreation and tourism, from the shoreline in Christchurch to the Kingston Lacy Estate in Dorset. This project offers wide-ranging opportunities to strengthen the interest and diversity of our already remarkable treescape, bringing into focus the tree species, tree management practices, tree-rich habitats and rewilding opportunities associated with riparian environments.

Adapting to and mitigating climate change

The priorities for action identified in this strategy will help the Council as well as our local communities progress towards carbon neutrality. For example, the ambition to create new or expanded council-owned woodlands (see priority for action 2B) would help offset any emissions the Council cannot eliminate, while providing opportunities for biodiversity enhancement. Similarly, increasing the use of trees to support greater use of sustainable travel options (see priority for action 2G) would help reduce road emissions, which represent a significant proportion of our conurbation's total carbon dioxide equivalent emissions.

This approach, together with actions intended to avoid canopy loss (see priorities for action 1B, 1C and 3A) and increase canopy coverage (see priorities 1A and 1D) would also reduce the impacts of climate change – especially on people's health.

Transforming travel and the environmental impact of highways

Synergies between the grey and the green components of our highway network can be enhanced. While the need to replace the inevitable tree losses required to deliver the Transforming Travel and future programmes is well recognised, there is currently no clear vision or performance metrics on the use of trees and other 'grey to green' infrastructure enhancements to help achieve greater uptake of walking and cycling. Yet evidence suggests that while some grey infrastructure improvements are needed to make walking and cycling even an option, the integration of green infrastructure along the way – especially trees – is a powerful mechanism to make this option attractive to a wide audience. It is recommended that all key local walking and cycling routes be tree lined to the best extent possible. In the right context, trees can also assist with more traditional highway parameters (e.g. design speed, legibility, user integration or separation) and be used in lieu of or in conjunction with signage, bollards, raised tables, chicanes, etc. to facilitate safe urban mobility.

Opportunities to integrate trees and sustainable urban drainage to attenuate the impact of highways on the conventional drainage system and help reduce local flood risks are rarely pursued in our area. This strategy recommends, where appropriate, the trialling and progressive adoption of 'high performance' tree pits integrating sustainable urban drainage (SuDS). Benefits are not limited to flood risks reduction,

[12] See: www.bcpcouncil.gov.uk/Leisure-culture-and-local-heritage/Parks-and-open-spaces/Green-Infrastructure-Strategy.aspx

[13] https://dorsetlnp.org.uk/stour-valley-park/

but also includes more vibrant and resilient street trees, and attractive streetscapes (see Arnside Road example pictured below).

Above: This 'high performance' tree pits on Arnside Road, in Southmead, Bristol, combines the use of structural soil (Stockholm System), sustainable urban drainage and wildlife-friendly underplanting alongside a new cycle route to deliver multiple benefits. Image: Ben Rose.

From a maintenance perspective, street trees are currently perceived as a cost centre. This strategy recommends Increasing awareness of the benefits enhanced shading over road surfaces could bring to prevent road damage incurred during summer months due to high temperatures, or of the reduced needs for gully cleaning the integration of SuDS measures along street trees could generate.

To achieve these benefits, care is required to avoid potential conflicts that can arise from poor design or inadequate management. From a design perspective, good technical solutions[14] exist to ensure large-growing trees can thrive, and be integrated with SuDS, without causing damage to the surrounding 'grey infrastructure'. We recommend these be widely adopted. From a management perspective, leaf-cleaning operations require updating to meet the demands of a more pedestrian- and cycle-friendly transport network. Proactiveness is also required from landowners to avoid trees and hedges causing obstruction to the highway. Where the level of risk posed is high, the council can require the owner to cut back their overgrowing vegetation. If they fail to do this the Council has powers to cut it back and recover costs. However, as with all local disputes, residents are encouraged to attempt to resolve such issues by themselves as much as possible.

Promoting life-long health and wellbeing with trees

There is significant and exponentially growing evidence that incidental, day-to-day access to trees has a positive impact on public health – both physical and mental –, and at all stages of life[15]. While not everyone visits a park or has access to a private garden daily, most people use their local streets every day. This further emphasises the importance of securing good street tree provisions throughout our conurbation. This strategy recommends that work in these areas needs to start as a matter of priority, with wards with a low Tree Equity Score. Compelling UK-based evidence[16] suggests that income-related inequalities in health are less marked among populations who have greater exposure to green space because such exposure has the potential to modify pathways which can lead to disease.

Another important avenue to explore, from a preventative perspective, is the use of trees in schools, playgrounds, and other settings frequently used by children. Trees can be a source of high-value play and contact with tree-rich environments known to yield enhanced cognitive, well-being and physical activity outcomes.

[14] TDAG (2014). *Trees in Hard Landscapes: A Guide for Delivery*. London: Trees and Design Action Group Trust.
[15] Wolf, K.L., Lam, S.T., McKeen, J.K., Richardson, G.R.A., van den Bosch, M. and Bardekjian, A.C. (2020). *Urban trees and human health: A scoping review*. Int. J. Environ. Res. Public Health 17:4371. See: www.ncbi.nlm.nih.gov/pmc/articles/PMC7345658/
[16] Mitchell, R. and Popham, F. (2008). Effect of exposure to natural environment on health inequalities: an observational population study. *The Lancet* 372(9650):pp. 1655-1660. DOI 10.1016/S0140-6736(08)61689-X

Strong potential also exists in relation to the design and management of the outdoor spaces found around healthcare and social care settings.

Above: Highcliffe Castle log playground, in Christchurch. Image: Fred Ingarfield.

While the relationship between tree access and health is overwhelmingly positive, some negative associations exist. These fall in three areas: pests, pollens, and the negative impacts trees can have on air pollution. Each can be either managed and reduced or altogether avoided, as outlined below.

Pests: The main tree pests of concern for human health that are relevant to Dorset are the brown-tail moth (*Euproctis chrysorrhoea*) and the oak processionary moth (OPM - *Thaumetopoea processionea*). Contact with the hairs of the caterpillars of either species causes severe skin rashes, can lead to breathing difficulties and an allergic reaction. The brown-tail moth is present in the conurbation. Although occasionally found on oak trees, brown-tail moth larvae are more common on hedgerow trees such as blackthorn and hawthorn or on scrubby plants, especially bramble. The OPM hasn't been reported (yet) in Dorset but is spreading in and around London. The abundance of oak trees in our area, which the OPM favours, would create a perfect breeding ground for the pest. Special restrictions on movements of oak plants are in place to help reduce the speed of its spread[17], however the OPM will likely reach our conurbation within the next ten years[18]. From this perspective, continuing to plant oak trees and reinforce their dominance in the local tree population is a high-risk strategy. The brown-tail moth and OPM both originate from continental Europe and were introduced to the UK due to poor plant import controls. This points to the importance of adequate biosecurity measures (see > **Principle 3**).

Royal Bournemouth Hospital. Image: Stuart Lane.

[17] More information available at: www.gov.uk/guidance/managing-oak-processionary-moth-in-england

[18] According to the Forestry Commission's Southwest Area Team' s Woodland Resilience Officer consulted on this matter.

Pollens. Higher pollen concentrations exacerbate allergy symptoms. However, other factors, such as ambient temperature, humidity and air pollution also play a role. Care should be taken in avoiding creating concentrations of well-known allergenic species[19] close to vulnerable populations (for examples facilities hosting children, hospitals and other health care settings).

Volatile organic compounds and air pollution. While trees help filter air pollutants out of the air, certain trees also emit some biogenic volatile organic compounds (BVOCs). When released in areas with high levels of traffic pollution, in the presence of sunlight and heat, some BVOCs interact with nitrogen oxide and produce ozone, a harmful pollutant at street level. Care is therefore needed to avoid creating concentration of species known to be strong BVOC emitters in areas worse affected by traffic pollution. Trees can also have the potential to worsen air pollution in street canyons where, if forming continuous canopies, they can trap pollutants close to where people breathe. In such context, care is needed to select tree planting patterns that facilitate air pollution dispersion[20]. In dealing with air pollution issue however, the overarching priority should remain to reduce car dependence and encourage active travel as well as uptake of less polluting vehicles.

[19] The Trees and Design Action Group (TDAG)'s *Tree Species Selection for Green Infrastructure: A Specifier's Guide* provides information on the allergenicity of tree species commonly used in urban forestry, as well as their propensity to emit BVOCs. See: www.tdag.org.uk/uploads/4/2/8/0/4280686/tdag_treespeciesguidev1.3.pdf

[20] More information available at: https://uk-air.defra.gov.uk/assets/documents/reports/cat09/1807251306_180509_Effects_of_vegetation_on_urban_air_pollution_v12_final.pdf

Principle 3: RESILIENCE

Nurture a healthy, diverse, and climate-resilient local tree population.

Giant Redwood tree, and newly planted Hornbeam in Poole Park. Image: Fred Ingarfield.

Priorities for action

3A. Develop and implement a council-wide policy on tree biosecurity, pest and diseases management, alongside enhancing in-house expertise in these areas.

3B. Work with community and private sector partners to explore the feasibility and benefits of developing a community tree nursery.

3C. Work with community and private sector partners to explore opportunities of creating tree collections showcasing lesser-known available tree species that are adaptable to on-going climate change and suitable for small private gardens.

3D. Increase collaboration and engagement with tree nurseries.

Indicators

We will know that we are succeeding if we manage to reach the urban forest sustainability targets set for:

- Tree age diversity (Indicator T2).
- Tree species diversity (Indicator T3).
- Tree suitability to climate change (Indicator T4).
- Tree conditions (Indicator T5).
- Biodiversity (Indicator M12).

See > **Appendix C** for a definition of each indicator and the associated target.

For more insight into **Principle 3: RESILIENCE** see overleaf.

Alternatively, jump forward to > **Principle 4: RESPONSIBILITY**.

Building a preventative shield against pests, diseases and fire risks

Like other living organisms, trees are vulnerable to pests and diseases. In some cases, this can quickly turn into a fast-spreading epidemic. Contributing factors might include wind, insects, birds, and interventions by people. Most epidemics are species specific: they will only affect one type of tree. This is why concentrating many trees of the same species in the same area greatly increases biosecurity risks. By contrast, environments with diverse species are better equipped to withstand epidemics. Diversification of species is the most effective, cost-efficient, and sustainable solution to plant pathology issues.

As a result of climate change, our area will also be exposed to greater fire risks. This is of greater concern in neighbourhoods with a large presence of conifers, which can be prone to crown fires. Species diversification, favouring trees that are less flammable in the immediate proximity of people's home, is a good strategy to reduce such risk where able.

Informed species diversity

Although tree species diversification offers unarguable disease prevention and climate adaptation benefits, its implementation still warrants careful consideration. Urban and rural landscapes are the poles of a spectrum of environments. Care and expertise should be used when determining where, within this spectrum a site lies and what range of species to consider:

- Within the highly altered, man-made environments at the heart of the conurbation, a wider range of species should be considered where they have known potential to cope with the challenges of urban conditions.
- In proximity to natural green space and in more rural areas, the use of native and naturalised species[21] should be encouraged. This approach helps to soften the transitions between built-up and rural areas and supports biodiversity.

In all cases, use of local evidence on landscape character and urban forest species composition at the relevant scales (city-wide, neighbourhood, street or project area) as well as community consultation will support the design of informed approaches avoiding the loss of landscape character.

Tree age diversity

Diversification is not simply important in respect to the species mix characterising a local tree population: the tree age distribution also matters. tree populations are dynamic. Having trees at all stages of life ensures that there is always an urban forest. It is key for the continued provision of benefits to local people and wildlife. Trees are lost and planted, and succession has to be provided. This strategy recommends proactive replacement planting throughout the conurbation – both in the private and in the public realms (see priorities for action 1C and 1E).

Anticipating climate change

According to the 2022 UK Climate Change Risk Assessment[22], average temperatures are expected to rise by +4 Celsius degrees by the end of the 21st century. To achieve long-lived plantings, in addition to species diversification, greater focus will be needed on creating a more heat- and drought-tolerant urban forest.

Alongside planting conditions, tree choices are a primary consideration to adapt the urban forest to the impacts of climate changes. The more trees are naturally genetically adapted to the micro-climate conditions they encounter, the greater the chance of successful growth. For example, the micro-climate conditions found in town centres in our conurbation have increasingly more in common with the arid mountain sides of the Caucasus than with the moist hillsides of St Catherine's. Responding to these conditions when choosing the 'right trees' will mean paying attention to both species and, whenever possible, 'ecotypes' - the intra-specific variations that occur as trees adapt to their local environment.

Such shifts in tree species requirements will warrant building strong relationships with (preferably local) tree nurseries, as most tree producers are currently unable[23] to identify the

[21] A useful definition of these three terms is provided by the Royal Botanical Kew Gardens: https://growwild.kew.org/blog/uk-native-plants-and-fungi

[22] Available at: www.gov.uk/government/publications/uk-climate-change-risk-assessment-2022

[23] Sjöman, H. and Watkins, J.H.R. (2020) What do we know about the origin of our urban trees? – A north European perspective. *Urban Forestry & Urban Greening*, 56. 126879.

geographical provenance of the seed used to produce the trees they sell or which ecotype their material originate from. Plant growers should at a minimum able to comply with the Forest Reproductive Material (FRM) Regulations[24]. This requires suppliers of trees to provide information about the origin of the planting stock they sell and currently applies to 46 tree species and the genus *Populus*. A nursery unable to supply this information should be avoided.

Monitoring will also be needed – preferably in partnership with other areas with similar climate and tree population characteristics to ours. This would enable us to gain a better understanding of local tree responses to changing climate conditions.

Taking biosecurity seriously

Biosecurity refers to the need to prevent new pests and diseases being introduced into the UK from abroad. The biosecurity threats facing trees are increasing at an unprecedented rate[25]. Global travel, the importation of goods and a changing climate all have the potential to introduce pests and diseases which can have highly damaging impacts on the national and local tree populations. These outbreaks not only have the potential to have a devastating impact on our landscapes but can also impact on the council's (and other landowners') ability to strategically allocate resources to manage its tree population effectively due to the costs involved. Adherence to rigorous biosecurity practices in the sourcing and management of trees is therefore critical. At a minimum, all parties involved in the purchasing and/or care of trees should:

– Source their plant materials from Plant Healthy-certified[26] grower.
– Report signs of dangerous tree pests or diseases using the Forestry Commission's TreeAlert[27] (which also provides advice on diagnosis and identification of tree pests and diseases).

[24] www.gov.uk/guidance/marketing-forest-reproductive-material-for-forestry-purposes
[25] See Figure 1 in: DEFRA (2023) *Plant biosecurity strategy for Great Britain (2023 to 2028)*. www.gov.uk/government/publications/plant-biosecurity-strategy-for-great-britain-2023-to-2028/plant-biosecurity-strategy-for-great-britain-2023-to-2028
[26] Plant Healthy. https://planthealthy.org.uk/
[27] TreeAlert. https://treealert.forestresearch.gov.uk

Principle 4: RESPONSIBILITY

Build a committed and knowledgeable community of professionals and individuals caring for local trees.

Josh Clarke, from the Parks Foundation, prepares some of the 4,000 hedging whips that were planted with volunteers to help naturalise greenspaces throughout our conurbation over the 2022-23 winter season. Image: Parks Foundation.

Priorities for action

4A. Establish a governance process to oversee the implementation of this strategy.

4B. Provide guidance for council officers, developers and external organisations on how to maximise the benefits and resilience of trees in urban design.

4C. Work with existing community groups and support the establishment of Friends of Trees groups across the conurbation.

4D. Increase opportunities for residents, businesses, community groups and landowners to sponsor and/or become stewards of our tree population.

4E. Develop a communication strategy to increase people's awareness of trees and their benefits.

4F. Explore integrating tree knowledge into the curriculum of local schools and colleges.

4G. Explore opportunities to increase tree provision within and/or near educational facilities.

Indicators

We will know that we are succeeding if we manage to reach the urban forest sustainability targets set for:

- Council cross-departmental collaboration (Indicator C1).
- Utilities cooperation (Indicator C2).
- Large private and institutional landowners' participation (Indicator C3).
- Residents' involvement and neighbourhood action (Indicator C4).
- Cross-boundary collaboration (Indicator C5).
- General appreciation of trees as a community resource (Indicator C6).

See > **Appendix C** for a definition of each indicator and the associated target.

For more insight into **Principle 4: RESPONSIBILITY** see overleaf.

Alternatively, jump forward to > **Principle 5: VALUE**.

Sharing ownership

Public local authorities are not the sole custodians of quality of place: everyone has an impact through their daily lives. In many neighbourhoods the trees that give strength and texture to the local landscape are located on private land. All landowners and managers, whether individuals, businesses, or agents, have a role to play in the protection, management, and establishment of trees. Ensuring all have the access to adequate information and guidance, as well as the ability to be heard is essential.

Providing governance

This strategy provides a plan to enhance how the urban forest is planned, protected, and grown over time, but – as highlighted above – implementation is down to people working together. Learning from successful precedents in the UK (e.g., Birmingham) or abroad (notably in the US), a cross-disciplinary, and possibly cross-sector Urban Forestry Working Group offers a good vehicle to provide on-going leadership, coordinate actions and monitor progress. As the strategy custodian, the Group can provide the forum needed to reflect on successes and failures, take stock of unforeseen needs, and update any aspect of the strategy as needed.

Leading by example

The council is committed to the on-going management and maintenance of the trees and woodlands found on council land. This strategy recommends the adoption of a wide range of measures designed to achieve high standards of arboricultural practice within the council's portfolio, including:

- Proactive woodland management planning and implementation (see priority for action 2A).
- Proactive replacement planting of trees removed (see priority for action 1E).
- Enhanced tree planting specifications (see priority for action 4B).
- Enhanced sourcing and care of young trees (see priority for action 5E).
- Enhanced management of pest and biosecurity threats (see priority for action 3A).

Securing access to suitable information and guidance

Informed decision-making requires informed stakeholders. Each stakeholder group, including elected members, built environment and design professionals, utility undertakers, landscape and horticulture professionals, landowners and residents will have different needs. Having a strategic approach to communication, targeting the right information in the most adequate format is highly desirable.

"By 2030, a communication campaign has been implemented across different groups to promote 'small changes', similarly to what has been done on recycling. This has facilitated the widespread uptake of simple actions for all to contribute to a healthy, benefit-providing treescape." Group 2 feedback from the 10/03/2023 Stakeholder Workshop.

In support of this targeted outreach, it is also recommended that council-owned data on our urban forest be made available on an open access basis, through data sharing platforms (see Principles 5 and 6).

Strengthening community stewardship

Community stewardship may come in many forms. For examples, from residents planting a tree in their garden or sponsoring a memorial tree in a park, to businesses sponsoring a public realm tree near their premises, volunteer groups tending community orchards or tree wardens collecting tree data, conducting tree care or leading tree walks. In the Tree and Woodland Engagement Survey conducted in preparation for this Strategy, almost two-thirds (62%) of respondents said they would be willing to plant on the property where they live (i.e., in their garden, or in the communal area around their home granted they were given permission to do so). Nearly half (47%) said they were interested in opportunities to 'participate in tree-related volunteer activities'.

A rich network of community-oriented and volunteer-led organisations exist in our area, many engaged in agendas that, while not centred on trees, have a high degree of affinity with the objectives pursued through enhancing the urban forest. These groups would likely help support the implementation of this strategy if given the opportunity to do so.

Principle 5: VALUE

Co-ordinate and improve data and resources to optimise benefits from the local tree population.

Community orchard at Turner's Nursery in Poole.
Image: Fred Ingarfield.

Priorities for action

5A. Collect baseline data on the age, species, conditions, benefits, and value of the local tree population outside council ownership.

5B. Improve the council's tree data management and sharing tools to help save officer time and facilitate access for all to local tree data.

5C. Maintain up-to-date data on the planting, removal and value of council-owned trees.

5D. Explore adopting a green infrastructure benefit valuation tool for expenditure projects.

5E. Improve approach to tree procurement and young tree maintenance to ensure public benefits and value-for-money.

Indicators

We will know that we are succeeding if we manage to reach the urban forest sustainability targets set for:

- Knowledge of council trees (Indicator M1).
- Knowledge of woodlands (Indicator M2).
- Knowledge of private trees (Indicator M3).
- Urban forest funding (Indicator M5).
- Council human resources (Indicator M6).
- Tree risk management for council-owned trees (Indicator M7).
- Public tree management: trees outside woodlands (Indicator M8).

See > **Appendix C** for a definition of each indicator and the associated target.

For more insight into **Principle 5: VALUE** see overleaf.

Alternatively, jump to > **Principle 6: INNOVATION**.

Enabling effective management decisions with suitable data and tools

As with any form of asset management, the foundation for ensuring good returns is a clear understanding of the extent and quality of the resource being managed. Only incomplete data currently exists about the characteristics of our tree population: the age mix, species structure, and condition of all trees outside council ownership is unknown (i.e., 44% of the canopy cover). Within the council inventory, data gaps exist for trees removed or planted by third parties, such as the Parks Foundation. This strategy recommends that these gaps be addressed.

Equally important is ensuring that state-of-the-art data management and data sharing tools are used. Precious tree manager time can be saved using a nimble, adapted software to collect, hold and interrogate tree baseline data. Making this information available to a wide range of users via the corporate Geographic Information System (GIS) and public webmaps will mean that data on trees and canopy cover can be analysed spatially and in combination with other datasets, which is particularly helpful in understanding needs, benefits, and value from tree-related interventions.

Applying an asset management approach

Applying an asset management approach to the urban forest puts trees on a more equal footing with grey infrastructure for decision-making by applying a similar framework based on costs, benefits, and alignment with overall objectives. It also helps ensure that decision-making acknowledges that trees are one of the few assets in the built environment that appreciate over time. Having access to tree value data is essential in making balanced judgements when addressing conflict involving trees. It is also very useful when reviewing budgets, as asset management best practices recommend that the amount spent in management and maintenance is commensurate to the asset value.

Securing a conflict-free co-existence between trees and the surrounding infrastructures

A central objective of this Strategy is to promote the creation of a healthy, benefit-providing urban forest, where the nuisance and conflict created by poorly planned or managed trees are avoided (see Principle 2). However, in certain circumstances, decisions made in the past have led to present-day problems. Examples mentioned during the stakeholder engagement include sports pitches being rendered partially unusable or very expensive to maintain due to overhanging trees, allotments made difficult to cultivate due to excess shading, trees obstructing the footways or tree roots damaging surfaces. In resolving these conflicts, the solution deployed should seek to help meet both the needs of the trees and of the surrounding infrastructure.

Planting less to plant better, with suitable post-planting care

High tree failure rates are a common yet entirely avoidable outcome for tree planting campaigns. In the UK, it is estimated that on average, 30% of newly planted street trees fail in their first year[28]. Recent government-funded tree campaigns have featured in national newspapers with anecdotal evidence of even higher failure incidence[29]. Poor planting, vandalism and lack of adequate post-planting care are leading underlying causes. The waste incurred is further confounded by a lack of post-planting auditing – making it impossible to learn from possible mistakes. Securing good returns on investment when planting new trees warrants a commitment to adherence to industry standards such as BS8545:2014[30].

Even when trees succeed in establishing, short-cuts or poor choices made at the time of planting will translate in reduced long-term benefits or outright nuisance and extra costs. A common mistake is to forego formative pruning that is recommended for amenity trees as part of a post-planting care programme. Young trees purchased from commercial nurseries are delivered with a temporary branch structure that requires

[28] Trees in Towns II

[29] Gaten, E. (2022) Trees planted by councils die after 'rush job to show off green credentials'. *The Telegraph*, 31 December 2022. www.telegraph.co.uk/news/2022/12/31/trees-planted-councils-die-rush-job-show-green-credentials/

[30] *British Standard 8545: 2014 Trees: from nursery to independence in the landscape – Recommendations.* London: BSI.

additional training in the first decade post-planting. Such structural corrections are inexpensive to make when a tree is young: a pair of secateurs and a couple of cuts done on two or three occasions will typically suffice. Corrections to structural defects are considerably more costly and damaging to the trees when undertaken later in their lifecycle.

Similarly, a common mistake made during planting campaigns is to overlook the future size of the tree. The desire to achieve instant effect often leads to planting trees too close to one another, or too close to structures. The spacing and positioning of new planting need to reflect the mature tree size.

Below: Gently pruned Holm Oaks at Highcliffe Castle in Christchurch frame stunning sea views.
Image: Fred Ingarfield.

Principle 6: INNOVATION

Use research to build a better future for trees and their use.

Barn Owl sculpture at Kingfisher Barn Visitor Centre, in Bournemouth. Image: Fred Ingarfield.

Priorities for action

6A. Work with academic partners to create a research programme to support the delivery of the Urban Forest Strategy.

6B. Work with partners to explore the use of technological solutions to allow residents to view, collect and provide data on local trees.

6C. Work with partners to explore the use of tools and processes that can support activities designed to help organise local volunteers.

6D. Consider joining international urban forestry best-practice and knowledge exchange networks.

Indicators

We'll know we are succeeding if we manage to reach the urban forest sustainability target set for:

– Research and development (Indicator M13).

See > **Appendix C** for a definition of each indicator and the associated target.

For more insight into **Principle 6: INNOVATION** see overleaf.

Alternatively, jump forward to > **Delivering the strategy**.

Securing stronger links with research partners

Good urban forest management requires strong technical expertise, one that is based on an up-to-date understanding of good practice and demonstrates flexibility to absorb new information when it becomes available. Developing such expertise strongly benefits from engaging in research.

A significant potential exists in our conurbation to develop closer links with universities, inviting them to inform, through their research work, the management of the local urban forest. Projects born out of the implementation of this strategy also offer the potential to provide an 'open laboratory', enabling research-focused data-collection. To realise this potential in the most effective way, it is highly desirable for key local urban forest management stakeholders to join forces with interested academic partners to collaborate on the development of a joint research agenda, identifying key topics of interest, and potential projects where these topics could be explored.

Harnessing the power of technology to work with local volunteers

Whether within the context of a defined research programme or of routine tree care and management tasks, residents can play a significant role if given the opportunity. The use of technology including mobile apps and webmaps can help enable this potential. Tapping into such applications can help save council officer time and help focus volunteers' time on most pressing needs.

Joining international networks

Participating in, and possibly seeking certification from international networks such as The Biophilic City Network[31] and the Tree Cities of the World programme[32] can provide council staff and elected members the opportunity to learn and exchange experiences with others pursuing ambitious urban forest programme.

[31] See www.biophiliccities.org

[32] See https://treecitiesoftheworld.org/

Delivering the strategy

Overview

This strategy provides a vision, key guiding principles, targets and priorities for actions for all to embrace in order to secure a sustainable future for our urban forest.

Sustained delivery requires long-term commitments from a wide range of partners, including multiple council departments and other public agencies, local landowners, businesses, charitable organisations, community groups and residents. To coordinate this process, this strategy identifies two primary delivery vehicles:

(1) An **Urban Forest Working Group** acting as a governance body for the coordination, monitoring, reporting, review and update of the strategy. This group working with core project team members will construct a **delivery plan**. They will also be responsible for its implementation and review.

(2) A **Tree Charter**, inviting local Parish and Town Council, landowners, businesses, and community groups to sign-up to the six key guiding principles featured in this strategy and develop their own action plans (see > **Appendix D**).

The Urban Forest Working Group

A **delivery plan** will be used to help determine decisions made on investments, budgets, in consideration of any constraints, and resources required to implement the this strategy.

The Urban Forest Working Group will provide oversight on will act as a governance body to:

- Oversee and monitor the design and the implementation of this strategy and any subsequent delivery plans or other action points.
- Conduct regular reviews and updates.
- Facilitate enhanced coordination among council departments and other partners closely involved in implementing the delivery plan.

The timetable for this work will roughly be conducted as follow:

- Delivery plan implementation coordination: at least once a year.
- Delivery plan monitoring and reporting on progress to council cabinet: once a year.
- Delivery plan review and update: every 4 years.
- Strategy review and update: every 8 years.

The Working Group will include representatives from:

- BCP Council Arboriculture teams (both Environment and Planning).
- BCP Council Greenspace Development team, including landscape architects and GIS officer.
- BCP Council Planning Policy team.
- BCP Council Highway Design and Maintenance teams.
- BCP Council Flood Risk Management team.
- BCP Council Communication team.
- BCP Council Communities team.
- Dorset Council.
- Dorset Local Nature Partnership (LNP).
- Public Health Dorset.
- Health and Nature Dorset (HAND) Partnership.

Funding delivery

The council will continue to resource the management and maintenance of the trees and woodlands it owns. However, achieving the vision set out in this strategy depends on ongoing funding opportunities extending beyond the council and include key stakeholders in the public sector, the private sector, including developers, businesses, and landowners as well as the wider community. Potential funding sources to draw upon include:

Planning receipts

- Community Infrastructure Levy (CIL).
- Planning obligations (Section 106 agreements).

Green finance

- Habitat banking –woodland and urban tree habitat credits secured via implementation of Biodiversity Net Gain[33].
- Council carbon emissions offsetting.

Grants

- Heritage Lottery (Neighbourhood Tree Action Plans - NTAPs).
- Local Authority Treescapes Fund (vacant tree pits identified in NTAPs)
- Urban Tree Challenge Fund (NTAPs implementation).
- Woodland Management Planning Grant (Woodland Plans preparation).

Sponsorship

- Tree sponsorship schemes, such as Trees for Streets.

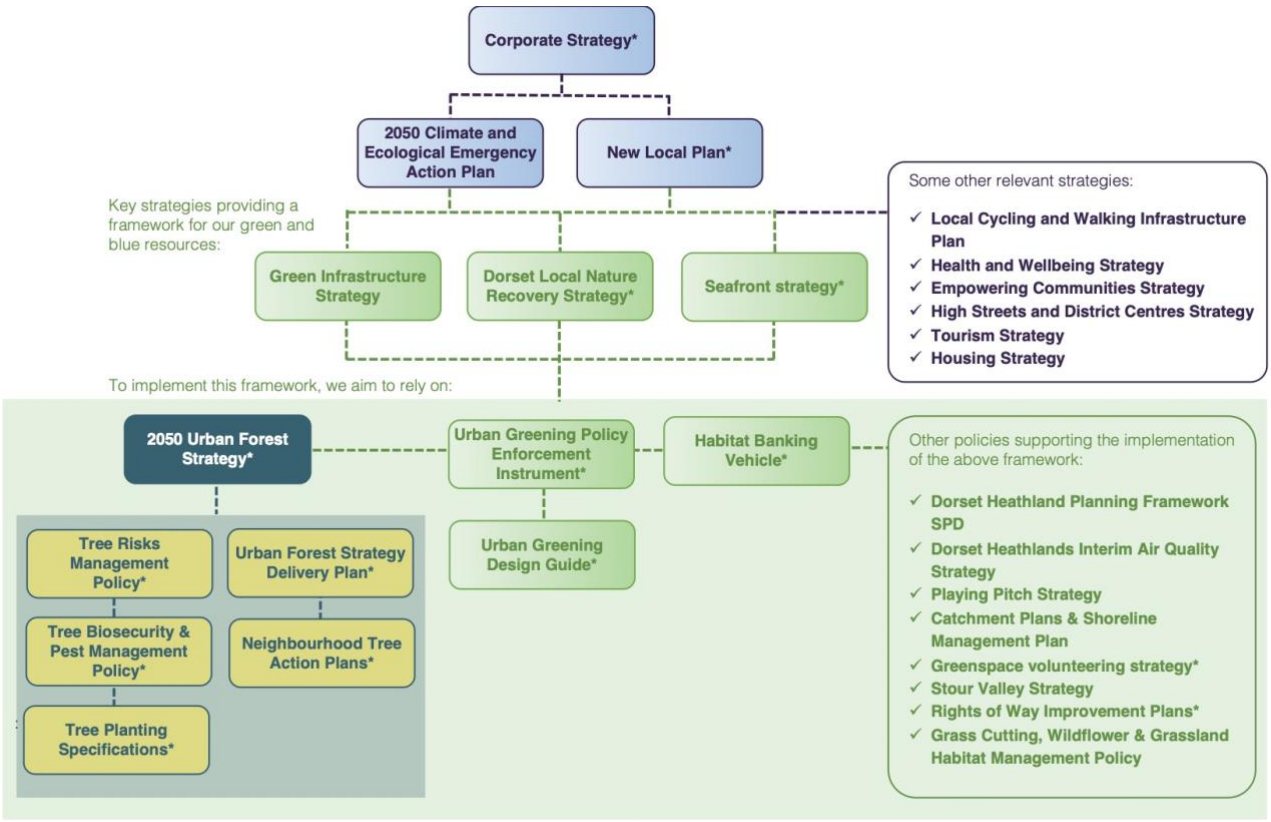
Below: Early March blooms in Alderney, Poole. Image: Anne Jaluzot.

[33] See: www.gov.uk/government/collections/biodiversity-net-gain

Fit with other council strategies and plans

The strategy is designed to support the implementation of a wide range of key objectives to which the council has already committed (see Fig. 3 below). Its aim is also to inform future emerging policies and ways-of-working. As part of its focus on enhancing communication and coordination amongst council departments, one of the key tasks for the Urban Forest Working Group will be to identify and make the most of opportunities to deliver key priorities for actions identified in this strategy.

Fig. 3: Fit with other council strategies and plans (2023)



* To be adopted.

Appendices

Back to > **Content**.

APPENDIX A: Seven key facts about our urban forest

1. Our conurbation has a good overall tree canopy cover.

21.0% of the conurbation is covered by trees (see Fig. 4). This is **significantly higher than the average** tree cover (14.3%) for urban local authorities in England as well as the 2050 target (16.5%) set by the UK Government[34] for the whole of England (see Fig. 5). It's also probably **one of the highest tree canopy covers found in an urban coastal location** in England.

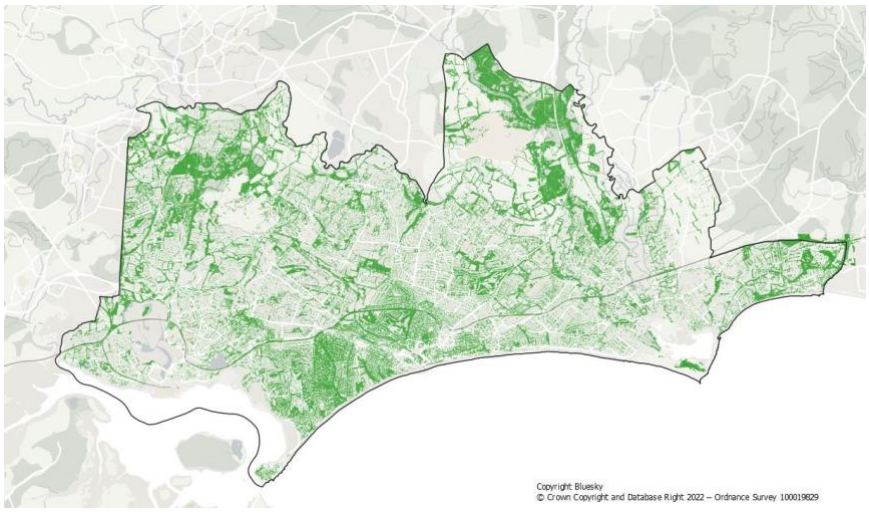


Fig. 4: Canopy cover in BCP in 2020 (data source: BlueSky National Tree Map™[35])

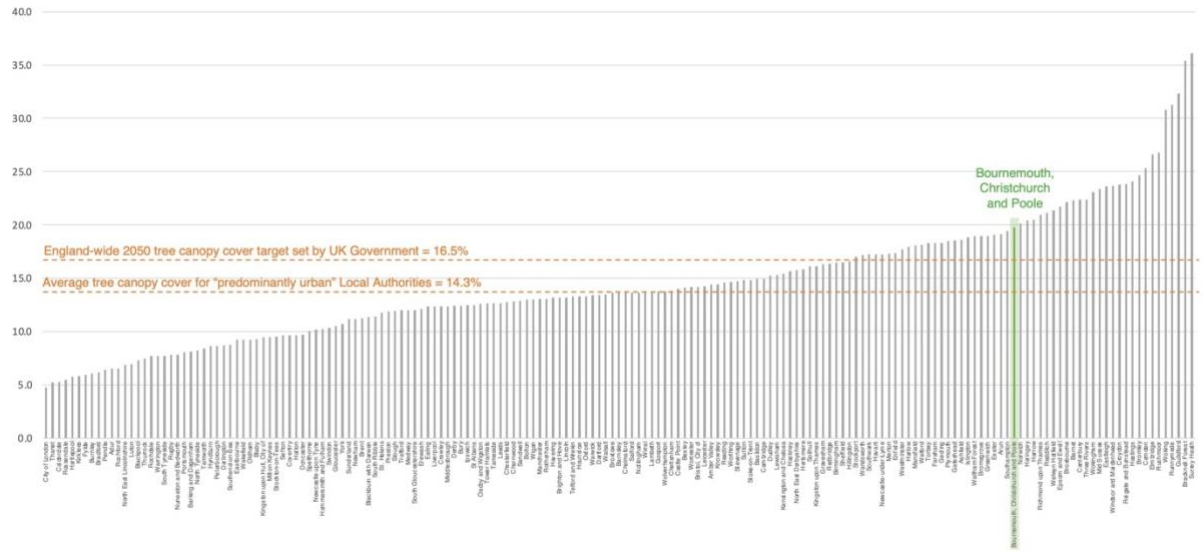


Fig. 5: Tree canopy cover percentage in "predominantly urban" local authorities in England (Data source: Friends of the Earth/Terra Sullis CIC[36]). BCP is shown as having a canopy cover of 19.8% because the data source used to produce this national comparison is different from that used in Fig.1. This shouldn't distract from the overarching finding that BCP has well above average canopy provision when compared with other urban local authorities in England.

[34] See paragraph 3 of The Environmental Targets (Woodland and Trees Outside Woodland) (England) Regulations 2022. Available at: www.legislation.gov.uk/ukdsi/2022/9780348242942
[35] See: https://bluesky-world.com/ntm/
[36] See: https://policy.friendsoftheearth.uk/insight/mapping-english-tree-cover-results-ranking-and-methodology

2. Information on tree species is incomplete but points towards a fairly good level of diversity.

Information on the species and age compositions of the local tree population is only available for Council-owned trees, which represent 56% of the local tree cover. Close to 270 species are represented within this subset, which is good given the limiting factors generated by BCP's coastal location.

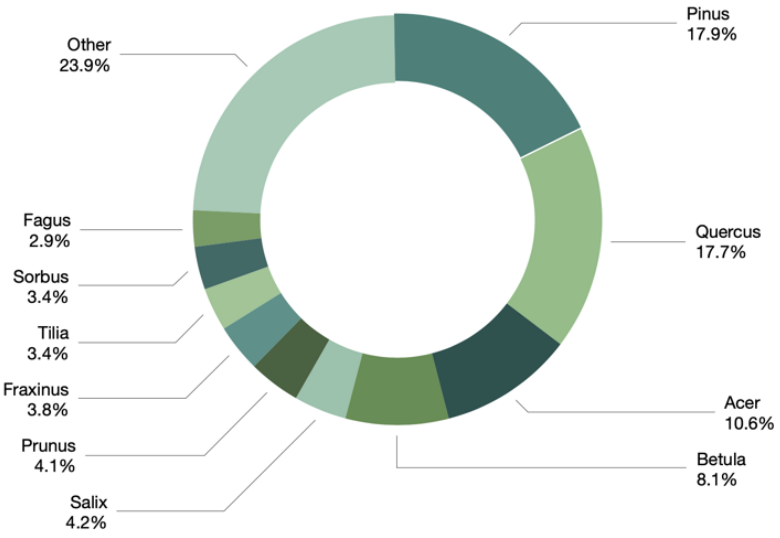


Fig. 6: Top 10 genera in the Council-owned tree population, based on number of trees (outside woodlands).

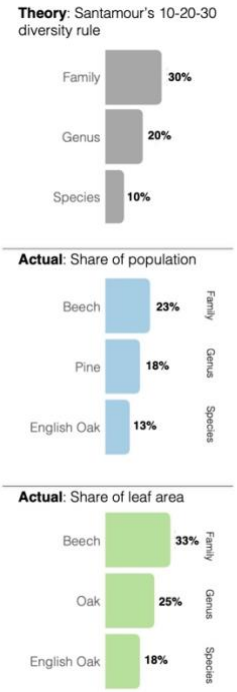


Fig. 7: Benchmarking the Council-owned tree population (outside woodlands) against Santamour's 10-20-30 Diversity 'rule'. The bars show the top contributor (based on tree number or on contribution to the total leaf area) for each of the three taxonomic levels considered (e.g.,. family, genus, species)

Whilst Pine trees (*Pinus*) are the most populous tree (see Fig. 6), especially in some wards, it is the Oaks (*Quercus*) which make the greatest contribution to ecosystem services (see point 4).

The Beech family (*Fagaceae*), which includes the Beech (*Fagus*) and the Oak (*Quercus*) genera, makes up over 20% of all trees, with the latter dominating the share of leaf area[37] (25%) – particularly in certain wards (see Fig. 7). This exceeds the Santamour diversity benchmark[38] (see Fig. 7), adherence to which is regarded as a good practice to help provide resilience to pests and diseases.

[37] The leaf area refers to the total area of all the leaves which are layered throughout a tree canopy. It is a useful indicator of the capacity of trees to deliver benefits.
[38] Santamour, FS (1990) *Trees for urban planting: diversity, uniformity and common sense*. In Proceedings of the 7th Conference Metropolitan Tree Improvement Alliance (METRIA). Lisle IL: The Morton Arboretum, 57–65.

3. Pronounced neighbourhood disparities exist in access to trees, which reinforce existing inequities in quality of life.

Despite strong overall canopy cover figures, not everyone in our conurbation enjoys good access to trees and the benefits they provide (see Fig. 8). Canopy cover ranges from 7.9% (Poole Town) to 40.1% (Canford Cliff).

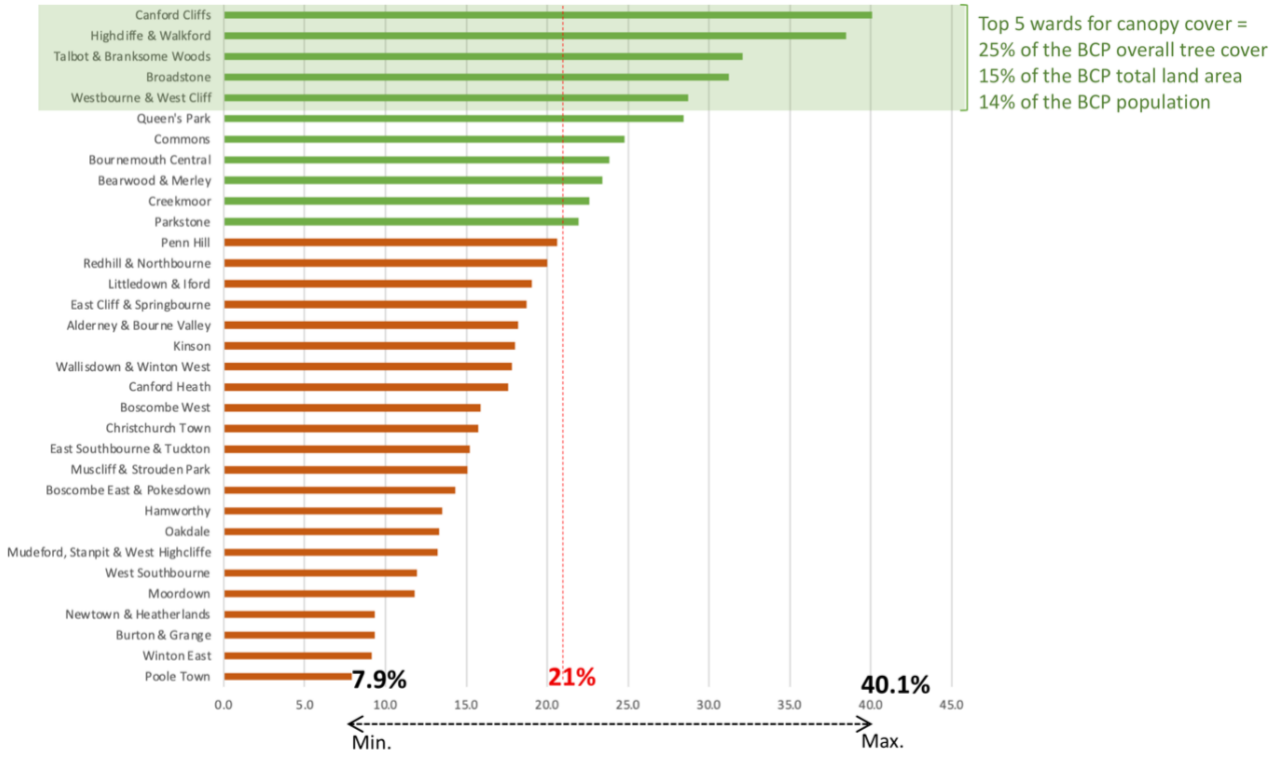


Fig. 8: Canopy cover by ward (2020).

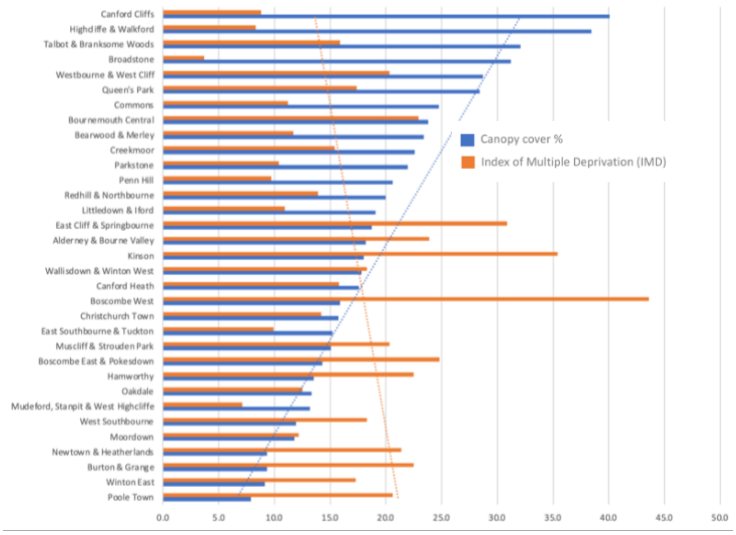


Fig. 9: More deprived wards tend to have a lower canopy cover (Data sources: Index of Multiple deprivations 2019; BlueSky National Tree Map™ 2020).

Neighbourhoods with higher prevalence of residents already affected by multiple deprivation[39] (see Fig. 9) and poor access to nearby greenspace (see Fig. 10) tend to also be tree-deprived.

This is concerning as exposure to excess heat as well as lack of regular visual and physical access to nature is associated with wide ranging negative health outcomes[40].

[39] As measured by the UK Government through the English Index of Multiple Deprivation. See: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/835115/IoD2019_Statistical_Release.pdf

[40] The University of Washington's Green City, Good Health website provides a good overview of existing evidence. See: https://depts.washington.edu/hhwb/Thm_StressPhysiology.html

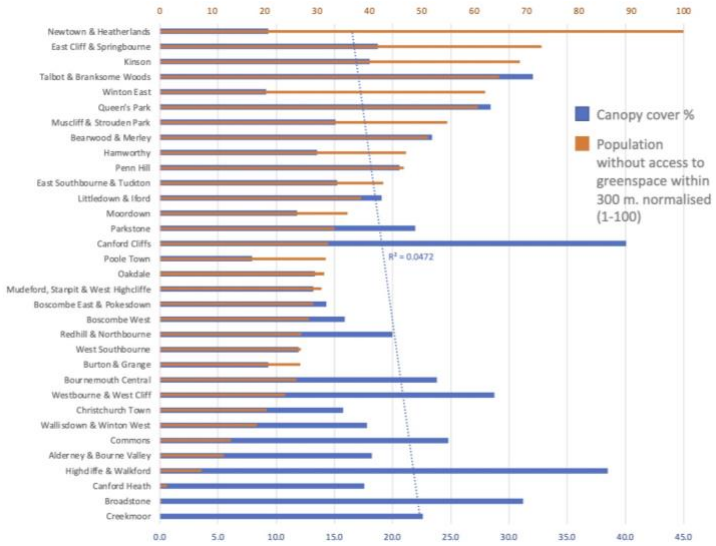


Fig. 10: Wards concentrating the largest populations without access to nearby greenspace also tend to have lower canopy cover (Data sources: Public Health Dorset; BlueSky National Tree Map™ 2020).

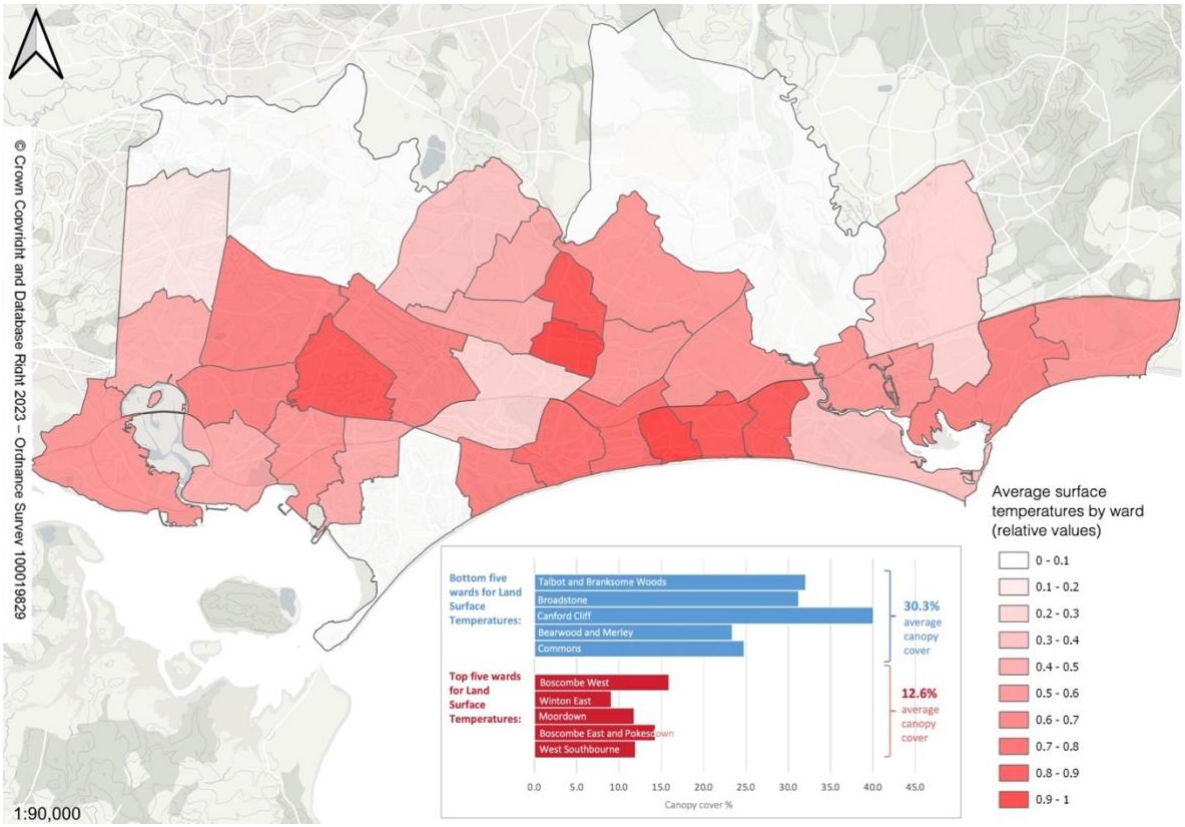


Fig. 11: The lower the tree canopy cover, the higher the surface temperatures (data sources: Landsat 8 July 2022, BlueSky National Tree Map™ 2020).

Areas with low tree canopy cover experience higher surface temperature (see Fig. 11), exposing local populations, especially people aged 75 and over, infants and those with chronic medical conditions, to greater risks of heat-related illnesses and mortality[41].

Areas combining both high needs for tree cover and low level of canopy cover provision ought to be prioritised. To inform this prioritisation process, this strategy has relied on a measure of tree equity, following a standardised methodology across all wards. See box overleaf.

[41] See: https://blog.metoffice.gov.uk/2023/01/10/heat-in-cities-the-health-impacts-of-a-changing-climate/

MEASURING TREE EQUITY IN BCP

In 2021, American Forest, a US-based charity championing urban trees launched the Tree Equity Score (TES). This metric, which is available for all neighbourhoods in urbanised areas in the US, helps consider disparities in tree canopy provision in light of:

- Key environmental, social, and economic **drivers of needs** for access to tree cover.
- How much canopy is **possible** given the built form.

This approach helps target investment where it will have the greatest impact.

Tree Equity Scores were measured for each ward in BCP based on the American Forest methodology, which was applied to data sources reflecting the UK context. The BCP TES combines data for each ward about:

- **Existing canopy**, as measured via the 2020 BlueSky National Tree Map™
- **Potential achievable target canopy**, which was set for each ward at 30% of the maximum potential canopy cover (ie: 30% of the area of land "left" when removing buildings, water bodies, protected habitats, sports pitches, and major infrastructure such as motorways and airports).
- **Multiple deprivation**, as measured via the 2019 Index of Multiple Deprivation for England,
- **Race**, as measured in the UK Census, with a focus on "non-white" populations.
- **Age**, as measured in the UK Census, with a focus on the concentration of the very young (under 5s), and very old (over 85).
- **Surface temperature**, as measured during the summer 2022 heatwave via the Landsat 8.
- **Access to nearby greenspace** (within 300 meters), as measured by Public Health Dorset.

These datasets were combined into a single score between 0 and 100. The lower the score, the greater the inequity. A score of 100 means a ward has achieved tree equity. Wards with the lowest TES should be considered first for investment.

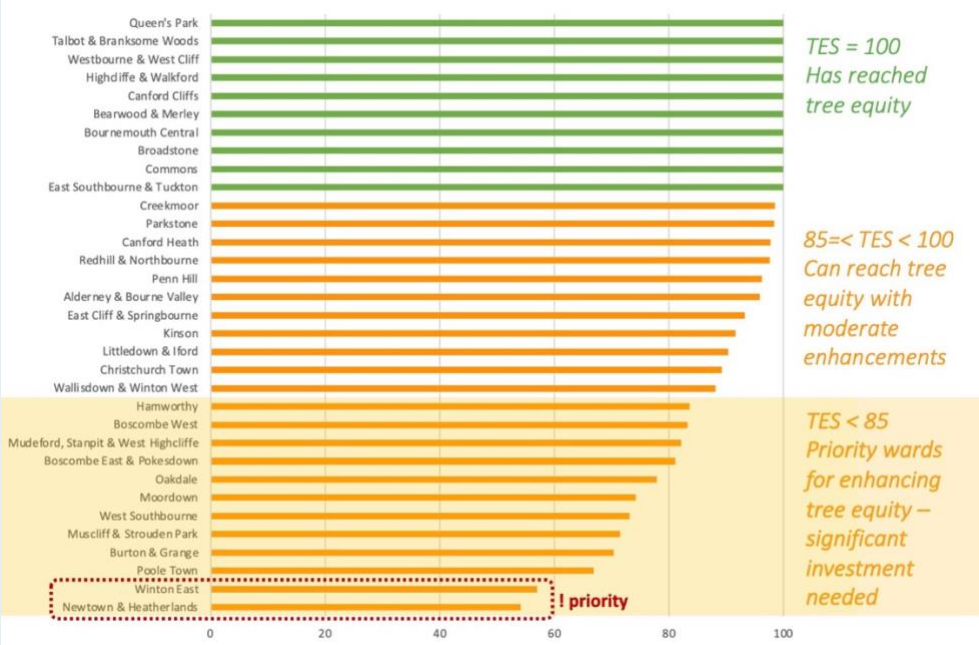


Fig. 12: Ward-level Tree Equity Score (TES)

4. The council is a key player: the estimated amenity value of its tree portfolio approaches £1 billion while associated yearly benefits exceed £1.2M in worth.

The council owns **64,000 trees outside woodlands** and **86 woodland sites.** This gives the council control over 56% of the local canopy cover, making it the majority stakeholder in the management of our urban forest (see Fig.13).

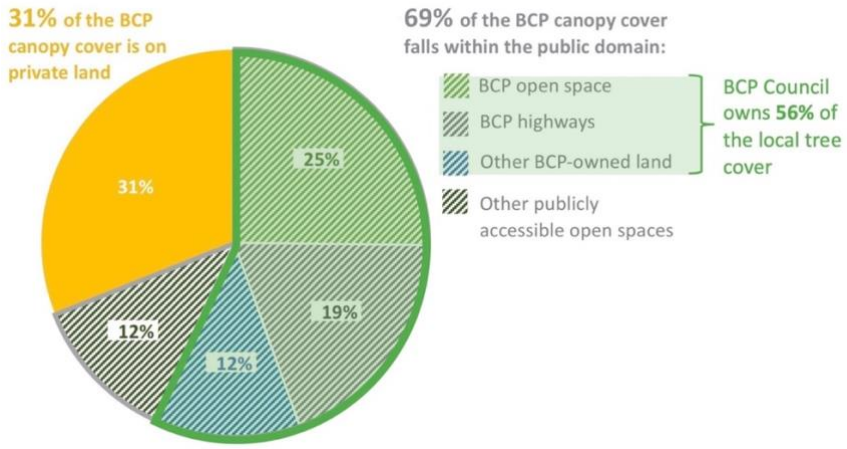


Fig. 13: Tree canopy cover distribution between public and private land.

Council-owned trees have an amenity valuation approaching **£1 billion**. Such a valuation, which was produced applying the Capital Asset Valuation for Amenity Trees (CAVAT)[42] method to council-owned trees outside woodlands is a reflection of the number and size of trees, as well as their proximity and accessibility to the 400,000 people that live in the conurbation.

Together with the publicly owned woodlands, council-owned trees store some 93,000 tonnes of carbon and sequester a further 6,500 tonnes annually.

The annual public benefits of carbon sequestration, rainwater capture and removal of air pollutants associated with Council-owned trees outside woodlands is valued at **£1.2 million** (see Fig. 14). This must be considered a conservative figure given it excludes major, harder to value, benefits such as urban cooling or contributions to mental and physical wellbeing.

More details about the value, ecosystems services and structural characteristics of the Council-owned tree population can be found in the *Bournemouth, Christchurch and Poole Council's Public Trees Inventory Report*[43].

Annual carbon sequestration	COUNCIL TREES OUTSIDE WOODLANDS	858 tonnes/yr	£780,000/yr
	COUNCIL WOODLANDS	5,870 tonnes/yr	£5,340,000/yr
Annual air pollution removal	COUNCIL TREES OUTSIDE WOODLANDS	21.1 tonnes/yr	£305,400/yr
Annual avoided stormwater runoff	COUNCIL TREES OUTSIDE WOODLANDS	48,331 m^3/yr	£91,076/yr

Fig. 14: Ecosystems services from Council-owned tree population.

[42] See www.ltoa.org.uk/documents-1/capital-asset-value-for-amenity-trees-cavat
[43] See https://haveyoursay.bcpcouncil.gov.uk/25953/widgets/73871/documents/44622

5. The private realm, especially in residential areas, makes an unusually low contribution to canopy, and its canopy is declining.

31% of the canopy cover falls within the private realm. This is **lower than most other urban areas** where the distribution of tree canopy between the public and private realms has been estimated. For example, in Greater London, the private realm is home to 60% of the canopy cover. The low provision of private tree canopy in our conurbation is particularly acute in **residential areas**, which account for 38% of the land but provide **only 6% of the overall canopy**.

This lack of nearby access to trees within the private realm is worsening. 28 out of BCP's 33 wards saw canopy cover in non-Council-owned land decrease in the past decade (see Fig. 15). The associated tree cover loss is equivalent to the area of about 92 professional football pitches[44].

It is only thanks to a significant increase in tree cover within public land that our overall tree canopy trend over the past 10 years has remained modestly positive (+0.4%).

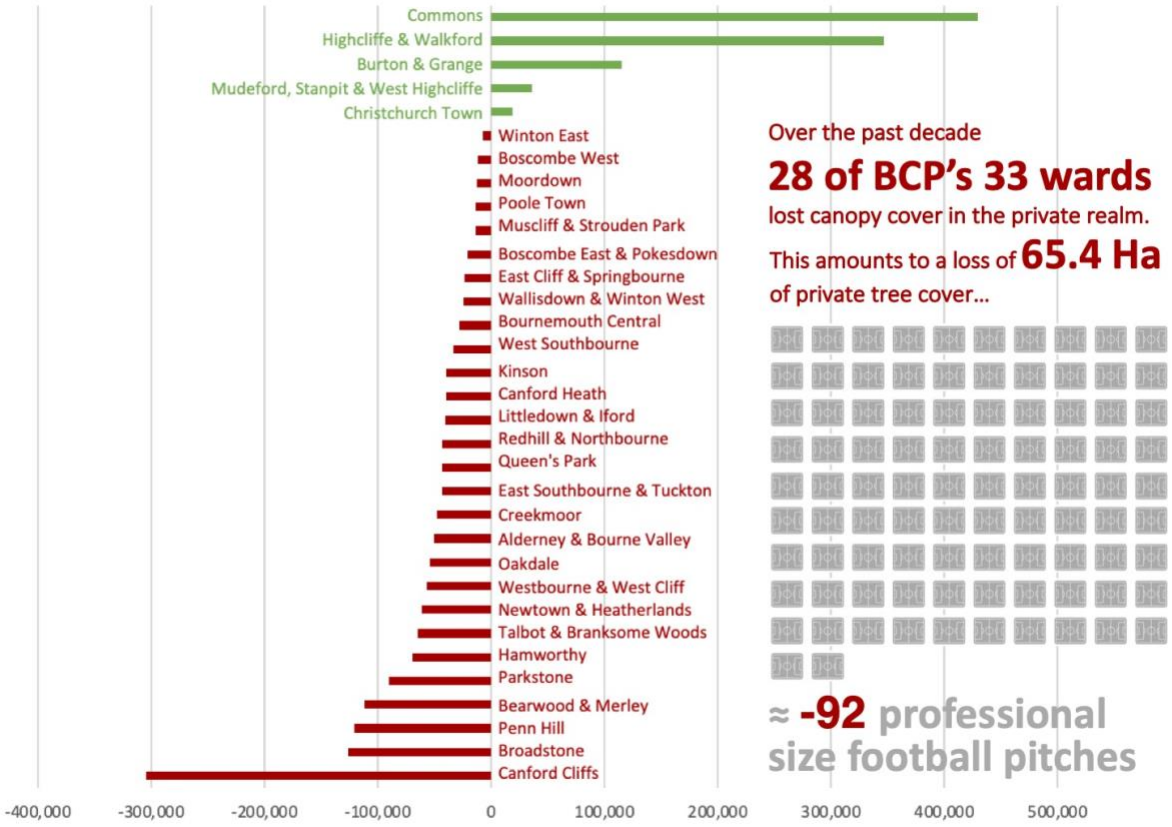


Fig. 15: Increase or loss of canopy cover in the private realm since 2007/2009 in square meters.

[44] Based on a pitch dimension of 105 by 68 metres (115 yd × 74 yd), which represents an area of 7,140 square metres.

6. New developments are one of the drivers of private canopy losses.

In preparation for this strategy, a random sample of 14 residential developments of 10 units or more having recently reached completion was reviewed and surveyed.

Findings were stark: compared to pre-development conditions, **canopy loss had occurred post development across the sample**. It was estimated that it would **take at best 25 years for onsite tree growth to mitigate the losses incurred** (see Fig. 16). More details on the findings from this work can be found in the *Tree Outcomes from Developments in Bournemouth Christchurch and Poole* report[45].

Fig. 16: Comparison of pre-development, post-development, and projected potential future canopy cover (approx. 25 years post-completion) across the 14-site sample studied. Pre- and post-development canopy cover calculated from BlueSky's 2007/9 and 2020 National Tree Map™. Canopy projection estimated using the Wycombe Canopy calculator.
Photograph: Canford Paddock, Magna Road, Bournemouth (Sophie Clegg).

The Tree and Woodland Engagement Survey also conducted in preparation for this Strategy revealed that the negative impact of developments also **features high in people's concerns** about the main challenges facing trees in the conurbation (see Fig. 17).

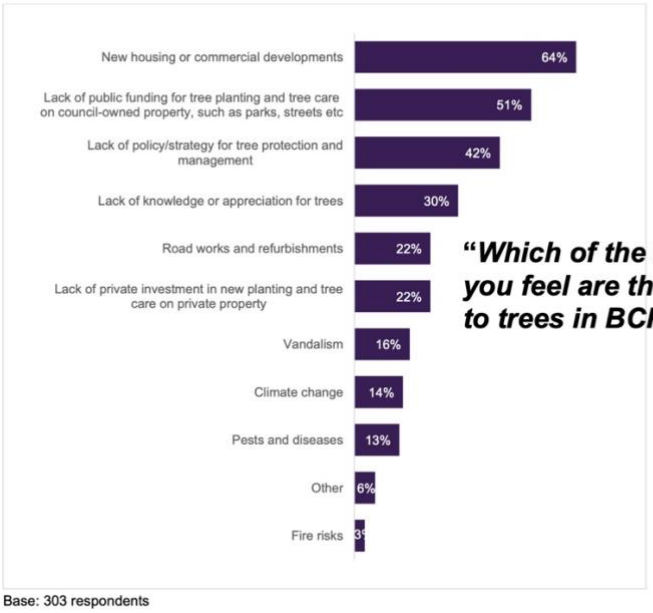


Fig. 17: Respondents to the Tree and Woodland Engagement Survey identified 'New housing and commercial developments' as the top threat to trees in our conurbation.

[45] See: https://haveyoursay.bcpcouncil.gov.uk/25953/widgets/73871/documents/44623

7. If nothing changes, current trends will inexorably lead to an overall loss in tree canopy in the long-term.

Relying on gains in the public realm to sustain the overall canopy cover is **not sustainable**. A close look at the age distribution of the council-owned tree population, which represents the lion's share of the public canopy, shows a deficit in young trees (see Fig. 18): trees with a diameter at breast height (DBH) below 15cm represent a smaller share of the overall tree population than the next two DBH categories.

Under a "do nothing" scenario, the cumulative impacts of canopy loss in the private realm and an ageing tree population in the public realm will inevitably lead to an overall canopy decline. **Drastic changes are needed to reverse these trends**.

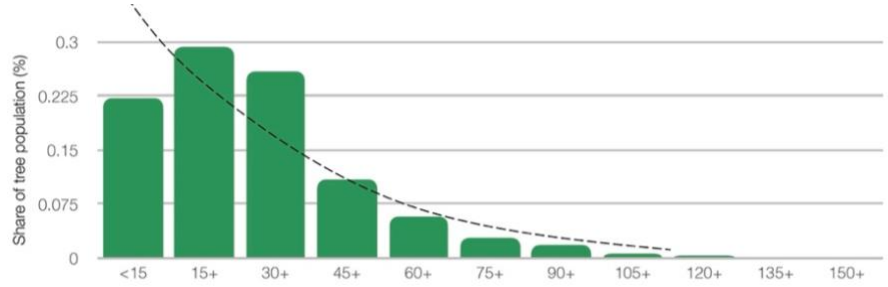


Fig. 18: Comparison of the Council-owned tree population distribution in size classes (based on trunk diameter at breast height, in cm) with 'ideal' reverse-J curve[46].

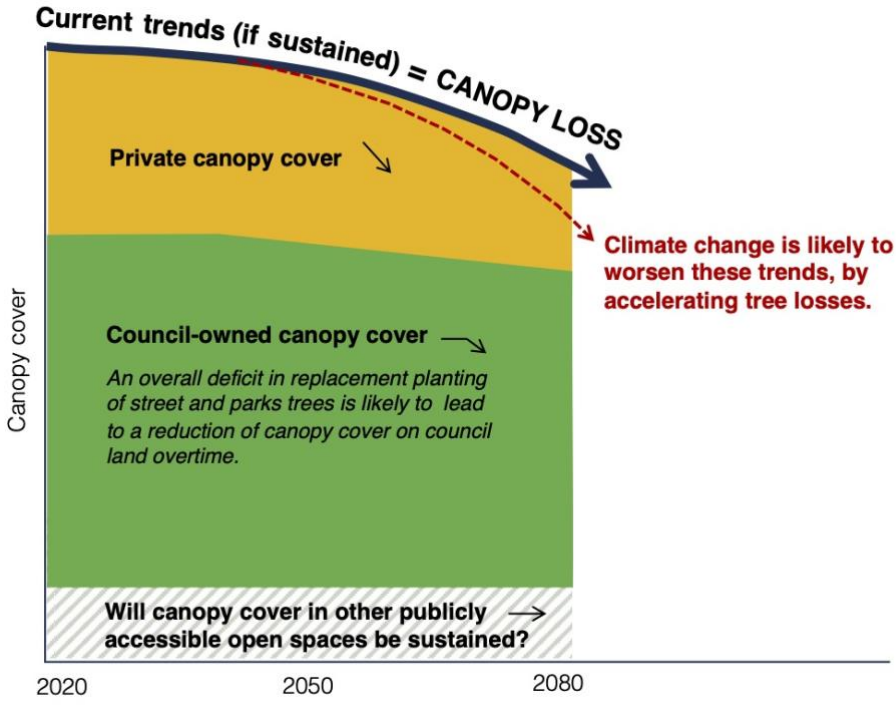


Fig. 19: Potential consequences of a "Change Nothing" scenario.

Go back to > **Content**.

[46] Justin Morgenroth, J., Nowak, Koeser, A.K. (2020) DBH Distributions in America's Urban Forests—An Overview of Structural Diversity. *Forests* 11(135). www.fs.usda.gov/nrs/pubs/jrnl/2020/nrs_2020_morgenroth_001.pdf

APPENDIX B: What we heard – findings from the stakeholder engagement process

Findings and ideas from Tree and Woodland Engagement Survey and Stakeholder Workshops held in preparation for this strategy provided the foundation for its content.

Tree and Woodland Engagement Survey

The Tree and Woodland Engagement Survey was conducted from 24 October 2022 to 2 January 2023 and attracted 308 responses.

On many points, the views gathered via the survey echoed the findings that arose from the data analysis, helping shape strong priorities for action notably in respect to tree equity (i.e., better access to trees where they are most needed), tree inclusion in new developments, greening the highways, and providing opportunities for resident involvement.

Some of the key conclusions from the survey were:

- The most important **benefit of trees** is '*supporting wildlife by providing food and shelter*' (71%)
- The main **challenge with trees** in BCP is '*not having enough trees where they are needed*' (66%) -
- The main **threat to trees** in BCP is '*new housing or commercial developments*' (64%)
- The **top priorities for future tree management** are '*increasing the tree cover and tree diversity on streets, parks and other land owned by the council so that all communities are well provided for*' (70%) and '*securing better tree preservation and planting in new commercial and housing developments*' (68%)
- The council to explore the introduction of a clear, binding target related to trees in new developments which, if not met onsite, would trigger a fee-in-lieu to pay for equivalent tree planting on public land (89%)
- Respondents support reducing the amount of available on-street parking to make space for new trees where space is tight on footpaths, and yet trees are much needed (77%)
- Respondents support some tree planting along the street where they live, even if it meant removing some parking spaces (79%)
- They would be willing to be a tree champion and help water the newly planted tree(s) outside their door during droughts in Spring and Summer, to help ensure it/they establish successfully (90%)
- They would be willing to plant on the property where they live (i.e., in their garden, or in the communal area around their home granted they were given permission to do so) (62%)

Stakeholder workshops

Two half-day stakeholder workshops were held on 29 September 2022 and 10 March 2023 with a cross-sector and multidisciplinary group of 50 local participants.

During the workshops, participants were first invited to capture their vision for the future of trees and woodlands in our conurbation and the challenges to overcome for their vision to come true. They used post-it notes as well as drawings to articulate their ideas.

"Vision" discussions highlighted the aspirations to:

1. Expand and enhance the BCP tree cover – promoting better access for all (improved equity), local character and green connections for people and wildlife through the conurbation.

2. **Secure resilience to climate change –** Prioritising diverse, future-proof species and quality growing environment.

3. **Enhance tree benefits –** biodiversity benefits, attractive routes for walking and cycling, good shade/temperature control, flood management, food production, wellbeing.

4. **Ensure new housing developments positively contribute to the BCP treescape –** via stronger development management policies in the forthcoming Local Plan, and enhanced capacity for enforcement.

5. **Enable local communities to be better informed and widely engaged** in shaping and managing local trees.

6. **Promote certain typologies**: street trees, woodlands where natural regeneration is allowed to take place, orchards.

The drawings produced are shown below (see Fig. 20 overleaf). Refer to the 29.09.2022 Visioning Workshop Report to read the narratives explaining them[47].

During the second workshop, participants were invited to further develop their ideas on what success might look like, based on a more evolved version of the key themes listed above – which eventually became the guiding principles for this Strategy. They also developed a timeline of key steps and milestones allowing to reach, for each of these principles, the successful outcomes defined. Refer to the 10.03.2023 Stakeholder Workshop Report to read the timelines and key steps thus defined[48].

The priorities for action identified in this strategy directly stem from this work.

[47] See https://haveyoursay.bcpcouncil.gov.uk/25953/widgets/73871/documents/44625

[48] See https://haveyoursay.bcpcouncil.gov.uk/25953/widgets/73871/documents/44624

Fig. 20: Drawings capturing 29.09.2022 workshop participant's vision for the BCP urban forest, together with some of the challenges standing in the way.

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APPENDIX C: Urban forest sustainability indicators and targets

When developing this strategy, we used the *Urban Forest Sustainability Performance Indicators for the UK*[49] to help assess the sustainability of our urban forest. This comprehensive, flexible, and peer-reviewed assessment framework is widely used in the US and has recently been adapted to the UK settings. As recommended in the framework, indicators were reviewed and fine-tuned to best address our context.

The framework assesses all three key parameters underpinning the sustainability of an urban forest:

- The characteristics of the tree resource (i.e., "The Trees").
- The management practices this resource is subject to (i.e., "The Management).
- The community setting which sustains and benefits from its existence (i.e., "The Community).

Information gathered from the data analysis, the working group and the stakeholder engagement was used to rate WHERE WE ARE TODAY and set **2050 TARGETS**.

The Trees

T1 Canopy Cover:

To achieve 25% canopy cover across the whole of our conurbation and reach 30% of the canopy cover potential in each ward.

LOW	FAIR	**GOOD**	**OPTIMAL**
Overall canopy cover is ≤50% of desired.	Overall canopy cover is 50–75% of desired.	**Overall canopy cover is ≥75% of desired**	**Canopy cover is >75% of desired – both at individual neighbourhood level and for the overall local area.**

T2 Tree age diversity

Objective: To provide for the ideal uneven-age distribution of all individually managed council trees – at the conurbation scale and at ward level.

LOW	FAIR	**GOOD**	OPTIMAL
Distribution highly skewed from the one recommended by Richards (1983)[50], where >60% of trees all individually managed trees have DBH <20cm or <3% of trees have DBH >60cm.	Uneven overall distribution where 50–60% of all individually managed trees have DBH <20cm or 3–5% have DBH >60cm.	**Distribution close to one recommended by Richards (1983), where <50% of all individually managed trees have DBH <20 cm and >5% have DBH >60 cm.**	Distribution close to one recommended by Richards (1983), for individually managed trees considered both across the whole area and at neighbourhood level.

T3 Tree species diversity*

[49] TDAG (2023). *Trees, Planning and Development: A Guide for Delivery. Appendix: Urban forest sustainability performance Indicators for the UK.* Trees and Design Action Group Trust: London. www.tdag.org.uk/uploads/4/2/8/0/4280686/tdag_tpdappendixv1.1.pdf

[50] Richards, N.A. (1983). Diversity and stability in a street tree population. *Urban Ecology*, 7, 159–171.

Objective: To establish a genetically diverse tree population at the conurbation scale and at ward level.

LOW	FAIR	GOOD	OPTIMAL
Any species represents ≤10% of population, any genus ≤20% or any family ≤30%.	No species represents >10% of population, no genus >20% or no family >30%.	As in 'Fair' and within new planting, no species represents >5% of population, no genus >10% or no family >15%.	At the conurbation scale, no species represents >5% of population, no genus >10% or no family >15% and within each neighbourhood, no species represents >10% of population, no genus >20% or no family >30%. Within new planting, no species represents >5% of population, no genus >10% or no family >15%.

***Current performance: Unknown.** GOOD within Council-owned tree population.

T4 Tree suitability to climate change*

Objective: To establish a tree population suited to the current and anticipated climate conditions.

LOW	FAIR	**GOOD**	OPTIMAL
Adaption to future anticipated climate conditions is not part of the criteria considered when selecting tree species for new planting.	Adaption to future anticipated climate conditions is considered – alongside other criteria, when selecting tree species for new planting. 50%-75% of newly planted trees are from species suitable for both the current and the future climate anticipated for our area in 2080.	**Adaption to future anticipated climate conditions is considered – alongside other criteria, when selecting tree species for new planting. Over 75% of newly planted trees are from species suitable for both the current and the future climate anticipated for our area in 2080.**	Adaption to future anticipated climate conditions is considered – alongside other criteria, when selecting tree species for new planting. Virtually all newly planted trees are suitable for both the current and the future climate anticipated for our area in 2080.

***Current performance: Unknown.** GOOD within Council-owned tree population.

T5 Tree conditions*

Objective: To provide for a healthy tree population at the conurbation scale and at ward level.

LOW	FAIR	**GOOD**	OPTIMAL
Over 50% trees have more than 10% of dieback.	50% to 75% trees have less than 10% of dieback.	**50% to 75% trees have less than 10% of dieback and no neighbourhood have more than 5% trees that have more than 75% dieback.**	≥75% trees had less than 10% of dieback and no neighbourhood have more than 5% trees that have more than 75% dieback.

***Current performance: Unknown.** GOOD within Council-owned tree population.

T6 Woodland accessibility

Objective: To provide accessible woodland close to where people live.

LOW	**FAIR**	GOOD	OPTIMAL
Less than 70% of the local population has access to at least 20 hectares of accessible woodlands within 4km of their home.	**At least 20% of the local population has access to of at least 2ha within 500m of their homes, and at least 70% has access to a wood of at least 20ha within 4km of their homes.**	At least 33% of the local population has access to of at least 2ha within 500m of their homes, and at least 90% has access to a wood of at least 20ha within 4km of their homes.	At least 50% of the local population has access to of at least 2ha within 500m of their homes, and at least 90% has access to a wood of at least 20ha within 4km of their homes.

The Community

C1 Council cross-departmental collaboration

Objective: For all departments in all tiers of local government to advance goals related to urban forest issues and opportunities.

LOW	**FAIR**	GOOD	**OPTIMAL**
Different council departments and council-owned organisations (e.g. Future Places, BCP Homes) take actions impacting the urban forest with no coordination or consideration of the urban forest resource.	**Different council departments and council-owned organisations (e.g. Future Places, BCP Homes) recognise potential conflicts and reach out to urban forest managers on an *ad hoc* basis – and vice versa.**	Key urban forest principles and targets are embedded within key strategies and plans across council departments, especially those with responsibility for planning and development management, highways and mobility, drainage, housing education and public health. Council departments and council-owned organisations communicate regularly and collaborate on a project-specific basis.	**Key urban forestry principles and targets embedded within strategies and plans across Council departments as in 'Good'. Formal arrangements are in place enabling cross-departmental working teams on all key municipal projects so that opportunities for tree preservation, planting and enhancement can be proactively spotted and cost-effectively acted upon.**

C2 Utilities cooperation

Objective: For all utilities, above and below ground, to employ best management practices and cooperate with the local authority to advance goals and objectives related to the urban forest.

LOW	FAIR	**GOOD**	OPTIMAL
Utilities take actions impacting the urban forest with little consideration for the urban forest resource. Tree-related issues are not covered in how the local authority communicate with and coordinate utilities.	Utilities demonstrate awareness of best management practices (Streetworks UK[51], BSI[52], Water UK[53]), recognise potential conflicts with public trees, and consult urban forest managers on an ad-hoc basis and vice versa.	**Utilities adhere to best management practices (Streetworks UK, BSI, Water UK). Utilities are included in informal municipal teams that communicate regularly and collaborate on a project-specific basis. Development management policies emphasise the importance of tree/utilities coordination and encourage the use of shared utility corridors.**	Utilities help advance urban forestry principles and targets by adhering to best management practices (Streetworks UK, BSI, Water UK), participating in formal cross-departmental working groups and reflecting local tree- related objectives in their own workplans and policies. The integration of trees and utilities is well addressed across all policy documents (e.g. Local Plan development management policies, design guide, transport/infrastructure plan and surface drainage plan) and coordination of trees and utilities is well implemented on all municipal projects.

C3 Large private and institutional landowners' participation

Objective: For all large landowners to embrace and advance local urban forest goals and objectives by implementing specific resource management plans.

LOW	FAIR	GOOD	OPTIMAL
Large private landholders are generally uninformed of urban forest issues and opportunities.	Municipality conducts outreach directly to landholders with educational materials and technical assistance, providing clear goals and incentives for managing their tree resource.	Landholders develop comprehensive tree management plans (including funding strategies) that advance municipality-wide urban forest goals.	As described in 'Good' rating, plus active community engagement and – where appropriate – access to the property's forest resource.

C4 Residents' involvement and neighbourhood action

[51] StreetWorks UK (formerly NJUG) Volume 4: Guidelines for the Planning, Installation and Maintenance of Utility Apparatus in Proximity to Trees. Available at: http://streetworks.org.uk/wp-content/uploads/2016/09/V4-Trees-Issue-2-16-11-2007.pdf

[52] British Standard 5837:2012. *Trees in Relation to Design, Demolition and Construction - Recommendations*. London: British Standards Institute.

[53] Water UK (2018). *Sewers for Adoption – 8th Edition*. Water Research Center plc: London. Available at: www.water.org.uk/wp-content/uploads/2018/10/SfA-8-Master-2.pdf

Objective: To involve the community in the development, implementation, and management of the urban forest plan.

LOW	FAIR	GOOD	OPTIMAL
Little or no community involvement or neighbourhood action.	Some neighbourhood groups engaged in advancing urban forest goals, but with little or no overall coordination with or direction by municipality or its partnering Non-Governmental Organisation(s) (NGOs).	**Many active neighbourhood groups engaged across the community, with actions coordinated or led by municipality and/or its partnering NGOs.**	Proactive outreach and coordination efforts by municipality and NGO partners resulting in widespread community involvement and collaboration among active neighbourhood groups engaged in urban forest management.

C5 Cross-boundary collaboration

Objective: To achieve cooperation and interaction on urban forest plans with neighbouring local authorities and regional authorities.

LOW	FAIR	GOOD	OPTIMAL
Municipalities have no interaction with each other or the broader region. No regional planning or coordination on urban forestry.	Some neighbouring municipalities and regional agencies share similar policies and plans related to trees and urban forest.	**Some urban forest planning and cooperation across municipalities and regional agencies.**	Widespread regional cooperation resulting in development and implementation of regional urban forest Strategy.

C6 General appreciation of trees as a community resource

Objective: Stakeholders from all sectors and constituencies within municipality – private and public, commercial, and non-profit, entrepreneurs and elected officials, community groups and individual citizens – understand, appreciate, and advocate for the role and importance of the urban forest as a resource.

LOW	FAIR	GOOD	OPTIMAL
General ambivalence or negative attitudes about trees, which are perceived as neutral at best or as the source of problems. Actions harmful to trees may be taken deliberately.	**Trees generally recognised as important and beneficial.**	**Trees widely acknowledged as providing environmental, social, and economic services – resulting in some action or advocacy in support of the urban forest**	The urban forest is recognised as vital to the community's environmental, social, and economic wellbeing. Widespread public and political support and advocacy for trees, resulting in strong policies and plans that advance the viability and sustainability of the entire urban forest.

The Management

M1 Knowledge of council trees

Objective: To have a current, accurate tree inventory.

LOW	FAIR	GOOD	OPTIMAL
Lack of up-to-date data.	Partial data with inadequate detailed information of tree stock.	**Full detailed inventory of all publicly owned trees.**	**Full inventory mapped for use across all departments and the public.**

M2 Knowledge of woodlands

Objective: To have detailed understanding of the ecological structure and function of all woodlands as well as usage patterns.

LOW	FAIR	GOOD	OPTIMAL
No or incomplete information about the location, extent, or access points of publicly owned woodlands.	All publicly owned woodlands are mapped and subject to a 'woodland condition survey' or similar document monitoring ecological conditions of the sites.	**As in 'Fair', but survey document also tracks level and type of public use in publicly owned woodlands. This information is used to inform the Woodland Management Plans (see indicator M9)**	As in 'Good'. In addition to usage patterns, ecological structure and function of all publicly owned woodland are also assessed and documented – providing a basis for the Woodland Management Plan (see indicator M9).

M3 Knowledge of private trees

Objective: To understand the extent, location, and general condition of privately owned trees across the urban settlements.

LOW	FAIR	GOOD	OPTIMAL
No information about privately owned trees.	**Aerial assessment of trees on private property, capturing overall extent and location (ie i-Tree Canopy, BlueSky, Lidar).**	**Sample-based assessment of trees on private property (i-Tree Eco), as well as basic aerial view (as described in 'Fair' rating).**	Sample-based assessment on private property (i-Tree Eco), as well as detailed canopy cover mapping of the entire urban forest (using remote sensing).

M4 Canopy cover measurement and goals:

Objective: To underpin urban forestry policy and practice with accurate, high-resolution, regular assessments of existing and potential canopy cover used to set comprehensive goals authority wide and at neighbourhood or smaller management/land ownership levels.

LOW	FAIR	GOOD	OPTIMAL
No assessment or goal.	Low-resolution and/or point-based sampling of canopy cover using aerial photographs or satellite imagery – and limited or no goal setting.	**Complete, spatially explicit, and high-resolution urban tree canopy assessment based on enhanced data (such as LiDAR), accompanied by comprehensive set of canopy cover goals.**	**As in 'Good' – and all utilised effectively to drive urban forest policy and practice conurbation-wide and at neighbourhood or smaller management level.**

M5 Urban forestry funding

Objective: To develop and maintain adequate funding to implement a Strategy for the urban forest.

LOW	FAIR	GOOD	OPTIMAL
Funding available sufficient only for emergency, reactive management.	**Funding sufficient for some proactive management based on priorities defined in the Strategy.**	As in 'Fair', with funds coming from more than one source, including ring-fenced planning receipts.	**As in 'Good', with funding from multiple sources in both the public and private sectors.**

M6 Council human resources

Objective: To maintain sufficient well-trained personnel and equipment, whether in-house or through contracted or volunteer services, to implement the local urban forest Strategy.

LOW	FAIR	GOOD	OPTIMAL
Personnel and equipment inadequate to handle planning-related needs, arboricultural management issues for public trees and wider urban forestry planning and coordination needs. No capacity to take on any new, proactive initiative.	Personnel is just sufficient to handle tree-related planning caseloads and management issues arising from public trees. Some limited capacity to undertake wider urban forestry planning and coordination or to deliver short-lived new projects.	**Adequate personnel and equipment to handle tree-related planning caseloads, arboricultural management and wider urban forestry planning and coordination. There is capacity to deliver a portfolio of projects going beyond 'routine' on an on-going basis.**	As 'good', with profiles among the team including a diversity of disciplines and backgrounds.

M7 Tree risk management (Council-owned trees)

Objective: To have a fully implement a comprehensive tree risk management programme, allowing periodic and proactive checks on trees that could cause foreseeable harm through failures and manage them considering the benefits they also provide.

LOW	FAIR	GOOD	OPTIMAL
No tree risk assessment or risk management program. Response is on a reactive basis only.	Level I (limited visual assessment) inspection and follow-up conducted periodically.	**Level II (basic assessment) conducted periodically, resulting in scheduled follow-ups.**	**Level II (basic assessment) conducted routinely, according to defined cycle and intensive follow-up (i.e., priorities and timelines for mitigation established based on the characterisation of risk).**

M8 Public tree maintenance (trees outside woodlands)

Objective: To ensure that all publicly owned and managed trees are well maintained for optimal health and condition.

LOW	FAIR	GOOD	OPTIMAL
No maintenance of publicly owned trees, or on a reactive basis only.	**Publicly owned trees receive only periodic inspection and maintenance.**	Publicly owned trees are inspected and proactively maintained on a cyclical basis, including young trees.	**All publicly owned, intensively managed trees, including young trees, are routinely and thoroughly maintained on ongoing basis according to comprehensive management plan.**

M9 Management of council-owned woodland

Objective: To ensure that the ecological integrity of all council-owned woodlands is protected and enhanced while facilitating public access and community involvement in management where appropriate.

LOW	FAIR	GOOD	OPTIMAL
No woodland management plans in place. Limited awareness of the need to secure a felling license for management activities to take place.	**All publicly owned woodlands have a partial management plan in place. When relevant, a felling license is systematically secured prior to undertaking management activities.**	All publicly owned woodlands have an up-to-date management plan and community groups are involved where available. When relevant, a felling license is systematically secured prior to undertaking management activities.	**All publicly owned woodlands have an up-to-date management plan. Where relevant, such plans are compliant with Forestry Commission guidance[54] and/or the UK Forest Standard[55]. Most sites involve community groups in management. The long-term impacts of management are monitored at most of the sites. Commercial woodland opportunities are fully taken advantage of.**

M10 Trees protection in new developments

[54] www.gov.uk/guidance/create-a-woodland-management-plan
[55] www.forestresearch.gov.uk/tools-and-resources/fthr/uk-forestry-standard/

Objective: To prevent the unnecessary loss of existing trees during the development process.

LOW	**FAIR**	GOOD	**OPTIMAL**
No screening of sites allocated to development for the need to protect significant unprotected trees via a Tree Preservation Order (TPO). Specific tree protection planning conditions are not used in development management, or conditions used are weak, resulting in low levels of successful tree retention.	**Occasional creation of new TPOs for unprotected significant trees on allocated sites. Strong tree protection planning conditions, but limited capacity exist for enforcement.**	Occasional creation of new TPOs for unprotected significant trees on allocated sites. Strong tree protection planning conditions, with good capacity and willingness to carry out enforcement.	**Systematic screening of allocated sites and creation of new TPOs for unprotected significant trees. Strong tree protection planning conditions, with good capacity and willingness to carry out enforcement. The local developers' community is aware that the Council is prepared to serve a Temporary Stop Notice if a serious breach occurs.**

M11 Public tree establishment

Objective: To have a comprehensive and effective tree planting and establishment programme that is driven by canopy cover goals and other considerations according to plan.

LOW	**FAIR**	GOOD	**OPTIMAL**
Little or no tree planting; tree establishment is *ad hoc*.	**Some tree planting, but with limited overall local authority-wide planning. All trees planted are subject to post planting care, involving at least watering for three growing seasons.**	Tree planting plan is guided by needs derived from canopy and other assessments. All trees planted are entered into the public inventory. Post-planting care is as in 'Fair', but also involves mulching and formative pruning.	**As in 'Good'. The tree planting plan is also informed by community preferences and maintains species and age diversity. Establishment rates are recorded with the reasons for failure examined and used to inform future planting programmes.**

M12 Biosecurity

Objective: To avoid the introduction, establishment and spread of harmful pests and pathogens.

LOW	FAIR	**GOOD**	OPTIMAL
No biosecurity policy in place.	The council has a biosecurity policy.	**As in 'fair'. The council and its contractors adhere to recognised and published guidance[56] and source their plant materials from Plant Healthy-certified[57] grower. Biosecurity is included in the Local Plan. Development proposals are required to demonstrate that adequate measures are in place to ensure that all planting stock and associated materials are supplied free of pests and diseases.**	As in 'good', but all engaged in the design, planting and supply of material are Plant Healthy certified. The council and its tree contractor are signed up to Forest Research's Plant Health Alert.

[56] Cox, S. and Robert, J. (2018). *Application of Biosecurity in Arboriculture. Guidance Note 2*. Stonehouse, Gloucestershire: Arboricultural Association. https://edition.pagesuite-professional.co.uk/html5/reader/production/default.aspx?pubname=&pubid=4cfe59b6-6eec-411e-b305-0a2ce0d99e73

Landscape Institute (2019). *Plant Health and Biodiversity: The Landscape Consultant's Toolkit*. LI Technical Guidance Note 01/19. London: Landscape Institute. https://landscapewpstorage01.blob.core.windows.net/www-landscapeinstitute-org/2019/04/tgn-2019-01-biosecurity-toolkit.pdf

[57] Plant Healthy. https://planthealthy.org.uk/

M13 Research and development

Objective: Local expertise and learning in urban forest management is is supported with partnerships with research institutions and active investment in research and development, particularly within council-led public realm and green space projects.

LOW	FAIR	GOOD	OPTIMAL
No co-ordinated focus on research and development (R&D).	Some co-ordinated focus on research, and participation in / contracting R&D on a case-by-case basis.	Clearly defined research priorities are defined, allowing sustained participation in or regular contracting of R&D benefiting projects stemming from the Urban Forest Strategy.	**As in 'Good' – and participation in international networks bringing together municipalities pursuing ambitious urban forestry and green infrastructure programmes.**

M14 Equity

Objective: To ensure that the benefits of urban forests are made available to all, especially to those in greatest need of tree benefits.

LOW	FAIR	GOOD	OPTIMAL
Tree planting and outreach is not based upon canopy cover provision or need for benefits.	Planting and outreach include attention to low canopy neighbourhoods or areas.	Planting and outreach targets neighbourhoods with low canopy and a high need for tree benefits.	**As in 'Good', with all neighbourhood planting and outreach guided by strong residents' engagement.**

M15 Mobility and placemaking

Objective: To make the most of green infrastructure – especially trees – to support the delivery of highways objectives, from place-making to safe and sustainable mobility.

LOW	FAIR	GOOD	OPTIMAL
Local transport policies do not address how green infrastructure is to be used to help achieve local mobility objectives. Trees are perceived as a cost centre and seldom included in new schemes.	The use of trees and other green infrastructure is integrated in the Local Transport Plan and the Local Cycling and Walking Infrastructure Plan. 'Pilot' or 'demonstrator' projects are being implemented exemplifying the use of green infrastructure to address agreed objectives.	**The use of trees and other green infrastructure is integrated in the Local Transport Plan and the Local Cycling and Walking Infrastructure Plan. Green infrastructure, including trees, feature in the standard designs used for a wide range of highway enhancement schemes**	As in 'Good', with green infrastructure targets being reported on a yearly basis and green infrastructure enhancement options being systematically considered at an early stage in all highway capital works projects.

M16 Nature recovery

Objective: To make the most of the urban forest to support nature recovery.

LOW	FAIR	GOOD	OPTIMAL
The impact of the urban forest structure and management on nature recovery is not an area of focus of local policies or practice.	The impact of the urban forest structure and management on nature recovery is an area of focus of both local urban forest and nature recovery policies. '	**As in 'Fair'. Local urban forest and nature recovery policies feature specific and robust recommendations on how to support nature recovery for broad spectrum of urban forest components (e.g. street trees, parks trees, woodlands, etc).**	As in 'Good', and data is collected to monitor impacts on wildlife, so that continuous improvements can be made, as needed.

M17 Water sensitive urban design

Objective: To make the most of the urban forest to sustain a healthy water cycle in the urban environment.

LOW	FAIR	GOOD	OPTIMAL
The mutually beneficial relationship that can exist between urban forest resilience and the sustainable management of the water cycle in the built environment is not recognised in policy or practice.	Some 'Pilot' or 'demonstrator' projects are being implemented exploring how to exploit the tree-water relationship.	**The mutually beneficial relationship that can exist between urban forest resilience and the sustainable management of the water cycle in the built environment is acknowledged in policy and translated into guidance. Multiple implementation examples exist in the public realm.**	As in 'fair'. New developments are expected to demonstrate how trees have access to and are used to help manage stormwater runoff. All new tree planting in the highway is designed to provide trees with good access to surface water runoffs.

M18 Public health

Objective: To make the most of the urban forest to support physical and mental wellbeing across our conurbation.

LOW	FAIR	GOOD	OPTIMAL
The health benefits trees can provide are not recognised in policy or practice. Little awareness or measures in place to avoid or reduce situations where trees can have negative health impacts (e.g. concentration of allergenic species close to vulnerable population, etc.)	The health benefits trees can provide are recognised in policy. Public health providers and/or their partners in the voluntary community and social enterprise sector are implementing 'pilot' or 'demonstrator' projects exploring how to exploit the tree-health relationship.	**As in 'Fair'. Local evidence exists on the effectiveness of increased tree access on public health. Planning, Transport and Housing policy recognise the positive health benefits access to trees, including tree-lined streets, can provide. Council tree planting and management policy reflect an understanding of how to avoid or reduce potential negative impacts of tree on public health.**	As in 'Good'. Provision of good canopy cover and good visual access to trees is considered when assessing the quality of residential development proposals. All new public tree planting is assessed considering a "health benefits" lenses. The health system has mainstreamed connection to trees as part of the green prescribing programme.

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APPENDIX D: Sign the Tree Charter for Bournemouth, Christchurch, and Poole

An equitable, benefit-providing, and resilient urban forest requires everyone to lend a hand in its care.

No one member of the community can do this alone.

There are things each of us can do to help.

The vision and principles provided in this strategy offer a framework for all to embrace and build upon, using the priorities for action identified as a starting point to devise their own concrete set of actions.

I _____ thereby representing _____ _____ support the nurturing of a sustainable urban forest that helps residents, visitors and wildlife thrive, wherever possible and appropriate, in every neighbourhood of our conurbation.

I confirm that _____ endorses the six principles featured in the Bournemouth, Christchurch, and Poole Urban Forest Strategy, and commits to taking part in their implementation and promotion.

To ensure this commitment leads to sustained and concrete action, _____ _____will develop and implement its own Tree Action Plan, with input from other BCP Tree Charter signatories.

Date: _____ Signature: _____

For the above Tree Charter signatory, the lead contact person on Tree Charter related projects will be:

Name: _____ Contact details: _____

Once completed and signed, please return this form by post or by email:

By post:
Environment
Hatch Pond Road
Poole, BH17 7LQ

By email: environment@bcpcouncil.gov.uk

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Acknowledgements

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Workshop participants & interviewees

We are very grateful to the following individuals who gave their time to either participate in one or both workshops, and/or took part in a one-on-one interview, or provided written feedback to help inform the development of this strategy:

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