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Tree, Hedge & Woodland Strategy for East Devon 2024 - 2034

Acknowledgements

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Acknowledgements

This Tree, Hedge & Woodland Strategy was prepared by Treeconomics in collaboration with the project team.

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Foreword

PLACEHOLDER

Contents

Acknowledgements	i		
Foreword	ii		
Section 1: Introduction	1		
1.1 Background	2		
1.2 Why Trees, Hedges and Woodland Matter	3		
1.3 Current State of Trees, Hedges and Woodland in East Devon	5		
Section 2: Vision	6		
Section 3: Action Plan: Targets, Priorities and Actions	8		
3 Using This Document	9		
3.1 Targets, Priorities and Actions	10		
T1 Tree Canopy Cover	10		
T2 Size (Age) Diversity	11		
T3 Species Diversity	12		
T4 Species Suitability	13		
T5 Publicly Owned Trees in the Urban Environment	14		
T6 Publicly Owned Woodlands and Natural Areas	15		
T7 Trees and Hedges on Private Property	16		
T8 Natural Regeneration & Habitat Restoration	17		
T9 Beavers and the Treescape	18		
T10 Quantifying Tree and Hedge Benefits	19		
Summary - Trees and Woodland Structure	20		
3.2 Community Framework	21		
C1 Governance and Inter-Departmental Co-Operation	22		
C2 Community Involvement, Neighbourhood Action & General Appreciation of Trees, Hedgerows and Woodlands	23		
C3 Utilities and Insurance Co-Operation	24		
C4 The Green Industry and Agriculture Co-Operation	25		
C5 Devon Tree & Woodland Strategy & Saving Devon's Treescapes	26		
Summary - Community Framework	27		
3.3 Sustainable Resource Management Approach	28		
R1 Tree and Woodlands Inventory	29		
R2 Tree Valuation and Asset Management Approach	30		
R3 Canopy Cover Assessment and Goals	31		
R4 Tree Equity (Links to C6)	32		
R5 Trees, Hedges & Woodland in Development	33		
R6 Tree and Hedge Protection and Enforcement	34		
R7 Tree & Woodland Funding	35		
R8 Capacity and Staffing	36		
R9 Tree Establishment - Site Suitability, Planning, Implementation	37		
R10 Maintenance of Publicly Owned Trees	38		
R11 Tree Risk Management of Council Owned Trees	39		
R12 Reviewing & Improving the Strategy	40		
Summary - Sustainable Resource Management Approach	41		
			45
Section 4: Consultation Feedback			46
Section 5. Appendices			
5.1 Best Practice Guidance			
5.2 Methodology			53
5.3 Bibliography			54
5.4 Glossary			56
			57

1.

Introduction

1.1 Background

The development of a comprehensive Tree, Hedge, and Woodland Strategy (THAWS) reflects the commitment of East Devon District Council (EDDC) to protect and enhance the district's cherished trees, woodland and hedges. In doing so it will enhance landscape character and biodiversity, improve the overall quality of life for its residents and sustain the natural beauty for which the area is renowned. Based on the principle of establishing the right trees in the right places for the right reasons, this strategy outlines how EDDC will provide essential care and maintenance of its own stock, encourage community engagement and private landowner cooperation with a framework to monitor the outcomes. The strategy will serve as a roadmap over the next decade, focusing on key priorities and actions in the first three years to ensure tangible results.

East Devon's landscape is distinctly rural, with 90% of the district comprising a mosaic of farmland, woodlands, coastline, lowland heaths, estuaries and river systems, while its urban areas make up the remaining 10%. Rural and urban areas often require different approaches for managing trees, hedges, and woodlands. Notably, East Devon is home to two National Landscapes including a section of the Jurassic Coast World Heritage Site, and the Blackdown Hills. Together, these cover some two-thirds of the district. The primary purpose of the National Landscape designation is to conserve and enhance natural beauty.

A total of 11,534 ha of land (14% of the total land area) within East Devon is woodland. This comprises a mix of natural, semi-natural and plantation woodland and includes ancient woodlands like Holyford Woods and Knapp Copse, which are managed by EDDC. East Devon possesses a varied range of woodland types, from wet woodlands, coastal woody habitats and commercial forestry to orchards and pasture woodlands. Dominant species tend to be oak or ash in lower lying areas, with beech on inland plateaus and birch and pine on heathland areas. East Devon's distinctive hedges - some of the densest in the UK - play a vital role in maintaining ecological connectivity and supporting wildlife, particularly in agricultural settings. Additionally, East Devon boasts beautiful parkland, with notable estates such as; Killerton (the National Trust's largest country estate), Bicton, and Poltimore. The diversity and quality of trees, woodland and hedges is a major contributor to the varied landscape character and natural beauty of the district.

Furthermore, the district is home to innovative conservation projects, such as Seaton Wetlands, the Lower Otter Restoration Scheme and the recent re-establishment of beavers along the River Otter, which are helping to enhance biodiversity and restore vital habitats.

This strategy recognises the importance of local community involvement, education, and collaboration with key stakeholders, including landowners, conservation groups, and businesses, all involved in its development. Exemplars of best practice, such as Sidmouth Arboretum, Yonder Wood near Exmouth, and the work of Clinton Devon Estates, serve as models for future initiatives that aim to balance conservation with economic needs.

Through this strategy, EDDC aims to not only conserve existing natural heritage but also to actively enhance and improve the resilience of East Devon's natural capital. By integrating this strategy with existing and developing policies and focusing on the district's unique environmental features and outstanding landscapes, the strategy will ensure that East Devon remains a leader in environmental stewardship and sustainable land management.

To ensure the strategy reflected a wide range of perspectives, balancing local input with expert knowledge and best practices, EDDC conducted an extensive stakeholder engagement process. This included a series of workshops with key groups such as environmental NGOs, landholders, utility companies, and industry professionals, complemented by a public consultation to gather input from residents on the role of trees, hedges, and woodlands in the district.

PLACEHOLDER

1.2 Why Trees, Hedges and Woodland Matter

There are far more benefits to trees than many of us appreciate. In keeping with the benefits of other natural systems, they are also known as ecosystem services. This approach was standardised by the IUCN (International Union for Conservation of Nature) Commission on Ecosystem Service Management. Over 100 Ecosystem Services have been identified by the CICES system (Common International Classification of Ecosystem Services) and work continues to quantify and value each of them.

Trees play a crucial role in supporting healthy, resilient environments. They provide a wide range of ecosystem services that are essential to both people and wildlife. These include improving air quality by absorbing pollutants, reducing the urban heat island effect through cooling, and mitigating flooding by absorbing excess rainwater. Beyond their environmental benefits, trees also offer significant social and economic value by enhancing the aesthetics of communities, providing recreational spaces, and improving mental well-being.

Biodiversity Net Gain (BNG) is a mandatory requirement under the Environment Act 2021 for most development types. It provides a legal framework for valuing and assessing trees, hedges, and woodlands (including orchards and wood pasture) in the development process³⁴. BNG units are used to quantify ecological uplift by calculating the habitat enhancement and connectivity benefits provided by trees, hedges and woodlands.

There are a large number of other benefits of trees where research continues to help assign meaningful valuations, especially in terms of quantifying societal impacts, such as an increase in house value, amenity value of trees and health benefits for residents are also increased in a diverse, healthy natural landscape.

Climate Adaptation - Temperature Regulation:

Trees, woodlands and hedgerows can reduce peak summer temperatures by up to 7°C.⁵ This particular adaptation has long been adopted by municipalities in warmer locations and forms a key tenet of green infrastructure thinking. Current research extends into examining the cooling effectiveness of individual species.

Noise Attenuation:

Trees, hedges and woodlands act as natural barriers to sound, reducing noise pollution from traffic, industry, and urban activities contributing to a more peaceful environment.⁶

Increased property or rental value:

A series of international third-party studies have shown that trees increase property prices by between 5% to 18%.⁷

Increased consumer spending:

Consumers are willing to spend more in shopping areas with large, well cared for trees. This has been measured as an increase of 9% to 12%.⁸

Reduced Stress and improved mental health:

Forest Research recently valued this particular benefit of forests and woodlands nationally at £185m.⁹ More trees immediately around the home (less than 100 meters) are associated with a reduced risk of being prescribed antidepressant medication. This association is especially strong for deprived groups.

Improved concentration and academic achievement:

Greener schools have higher test scores, even after taking income into account. Middle school students get a boost from school greening. Planting trees within 250m of schools has the greatest effect.¹⁰

Improved recovery times from illness:

Patients placed in rooms with views of nature experienced shorter stays in the hospital than patients in rooms that faced other buildings.¹¹

The infographic on the following page serves as a good illustration listing all the relevant benefits which trees provide to communities.

Sources and References:

- 1 i-Tree Eco. i-Tree Software Suite v6 (n.d.). <http://www.itreetools.org>
- 2 Doick, K. J., Neilan, C., Jones, G., Allison, A., McDermott, I., Tipping, A., & Haw, R. (2018). CAVAT (Capital Asset Value for Amenity Trees): valuing amenity trees as public assets. *Arboricultural Journal*, 40(2), 67–91. <https://doi.org/10.1080/03071375.2018.145>
- 3 Defra (2024); The Statutory Biodiversity Metric.
- 4 Forestry Commission (2024). Trees and biodiversity net gain on small sites
- 5 Air temperature regulation by urban trees and green infrastructure 2012. Doick, K. Hutchings, T. FCRN012 Forest Research.
- 6 Oliveira, J.D.D, Biondi, D. And Reis, A.R.N.D., 2022. The role of urban green areas in noise pollution attenuation. *Dyna*, 89(220), pp.210-215.
- 7 Wolf, K.L. 2007 (August). City Trees and Property Values. *Arborist News* 16, 4:34-36.
- 8 Business District Streetscapes, Trees and Consumer Response. *Journal of Forestry* 103, 8:396-400.
- 9 Mental health benefits of visiting UK woodlands estimated at £185 million (2021). Forest Research (online).
- 10 Kuo, M., Klein, S.E., Browning, M.H. and Zaplatosch, J., 2021. Greening for academic achievement: Prioritizing what to plant and where. *Landscape and Urban planning*, 206, p.103962.
- 11 Ulrich, R. (1984) View through a window may influence recovery from surgery. *American Association for the Advancement of Science*.

The Benefits of Trees



1.3 Current State of Trees, Hedges and Woodland in East Devon

East Devon’s trees, woodlands and hedges are a vital resource for the district, with a growing role within the public policy of EDDC.

The contrast between urban and rural treescapes poses a level of complexity for East Devon, in terms of understanding each system and how they interact and are managed. Large areas of East Devon are protected by designations such as the East Devon National Landscape, Blacktown Hills National Landscape, the Jurassic Coast World Heritage site, nature reserves, and other conservation designations.

A canopy cover study was carried out by Treeconomics using Google Environmental Explorer (refer appendix 4.2 for methodology) which found East Devon currently has just shy of 17,700 hectares of tree canopy cover, covering 21.7% of the district, with average. 12.6% cover within urban areas, and 22.7% cover in rural areas. There is a large variation across East Devon, with the lowest canopy cover found in Exmouth Town ward (10.3%), and the highest canopy cover in Exmouth Brixington ward (37.3%). The average urban tree canopy cover figure for England is 16%, measured from over 283 towns and cities.¹²

Whilst a 20% canopy cover has previously been suggested as a minimum for urban areas¹², the 3-30-300 rule^{13 14} (recommended by the IUCN), proposes: Every resident should be able to see at least 3 trees from their home; Neighbourhoods should aim for 30% tree canopy cover; and Every resident should live within 300 metres of a quality green space. In rural areas there is less definitive guidance, as landscapes can vary significantly, however aiming to improve tree cover and hedge extent, particularly in agricultural areas which may be lacking is important for improving connectivity for nature and climate resilience.

The existing tree population in East Devon consists of over 130 species¹⁵, the most common being English Oak (*Quercus robur*) accounting for 15% of the population, Ash (*Fraxinus excelsior*) with 12%, and Sycamore (*Acer pseudoplatanus*) with 7%.

Currently, the biggest threat facing the tree population is Ash dieback, a deadly fungal disease which already exists across East Devon. Given the size of mature ash trees, and the amount of native biodiversity which rely on these species, both tree canopy cover and native ecosystems are at serious risk of widespread devastation over the next 10-20 years. The Woodland Trust estimate that 80% of Ash in the UK could be killed by this disease.

Climate change is another major threat to trees, woodlands and hedges. Ensuring that both the urban and rural tree populations are resilient to changing temperatures, changing weather patterns, and new pest and disease threats will be crucial to ensuring the future of East Devon’s landscapes. Improving resilience means improving biodiversity, protecting soils, diversifying urban forests and woodland types, and using trees and hedges to connect isolated green pockets to help pollinators and wildlife to diversify and thrive.

Sources and References:

¹² Doick et al (2017),

¹³ Konijnendijk, C. (2021) The 3-30-300 Rule for Urban Forestry and Greener Cities

¹⁴ Browning, M.H.E.M., Locke, D.H., Konijnendijk, C., Labib, S.M., Rigolon, A., Yeager, R., Bardhan, M., Berland, A., Dadvand, P., Helbich, M. and Li, F., 2023. Measuring the 3-30-300 rule to help cities meet nature access thresholds. Science of The Total Environment, p.167739.

¹⁵ EDDC EzyTreev

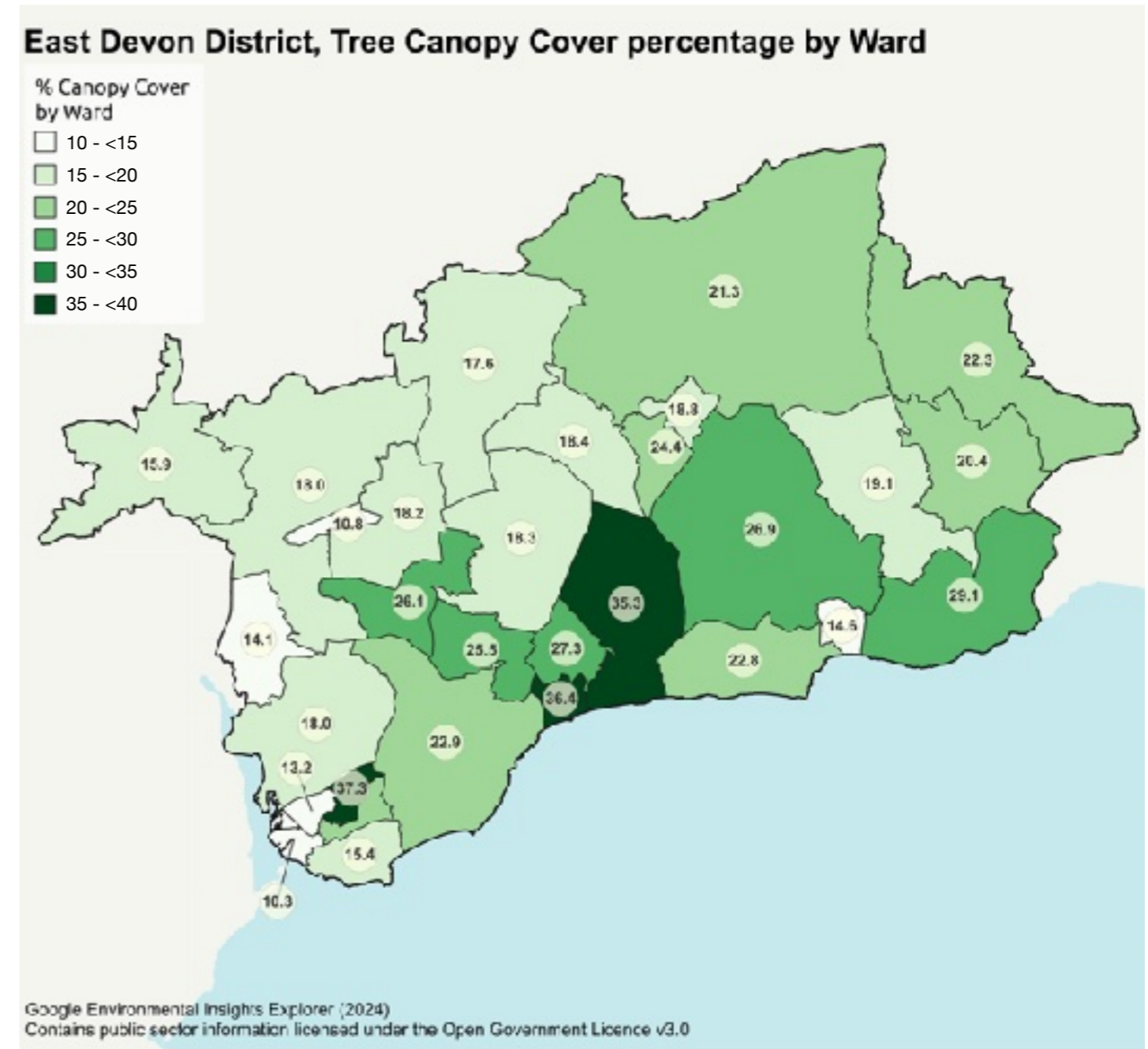


Figure 1. East Devon Tree Canopy Cover by Ward

What is covered by ‘Trees, Woodlands and Hedges’

We have adopted a broad definition, encompassing all trees, hedges, and woodland—ranging from carefully planted roadside trees to naturally occurring scrubland. These natural features offer valuable benefits to the people living nearby.

2.

Vision

East Devon: where trees, hedges and woodlands are cherished and enhanced, enriching our landscape, economy and the wellbeing of all who live and visit.

The Vision for East Devon's treescape is influenced by the rich heritage of its natural landscape and the desire to protect its beauty and positive environmental and social impacts for the benefit of local people and visitors. The Vision also aims to capture the critical aspect of how healthy trees, woodlands, and hedgerows are an asset to more productive and sustainable agriculture and tourism in East Devon.

To shape this strategy, East Devon District Council held multiple stakeholder workshops involving environmental NGOs, large landholders, utility companies, and relevant green industry experts. Additionally, a public consultation was conducted to gather residents' views on trees, hedges, and woodlands in the district. This collaborative approach ensures that the strategy reflects a broad spectrum of perspectives, addressing local needs and aspirations while drawing on expert knowledge and best practices.

This strategy aims to help EDDC fulfil the Vision by providing a clear and thorough pathway via Targets, Actions, and Key Performance Indicators. By grouping these targets into themes, a rounded approach can be applied to tackling areas of highest priority first, to improve and enhance East Devon's environment in line with the vision.

The Strategy outlines key topics, priorities, and actions under three central themes:

1. East Devon's Trees, Hedges, and Woodlands
2. Community Framework
3. Sustainable Resource Management Approach

The Strategy is structured around a comprehensive set of key performance indicators, informed by the current state of evidence and best practices. For each of these performance indicators, an assessment of the current situation is made, ambitions are laid out, and priorities are identified.

Moreover, specific actions and roles and responsibilities are also defined. This ambitious Strategy is an important step forward. Its implementation, in collaboration with both Devon County Council and all local parishes, will create a greener, healthier, and more resilient place to live and work.

East Devon: where trees, hedges and woodlands are cherished and enhanced, enriching our landscape, economy and the wellbeing of all who live and visit.

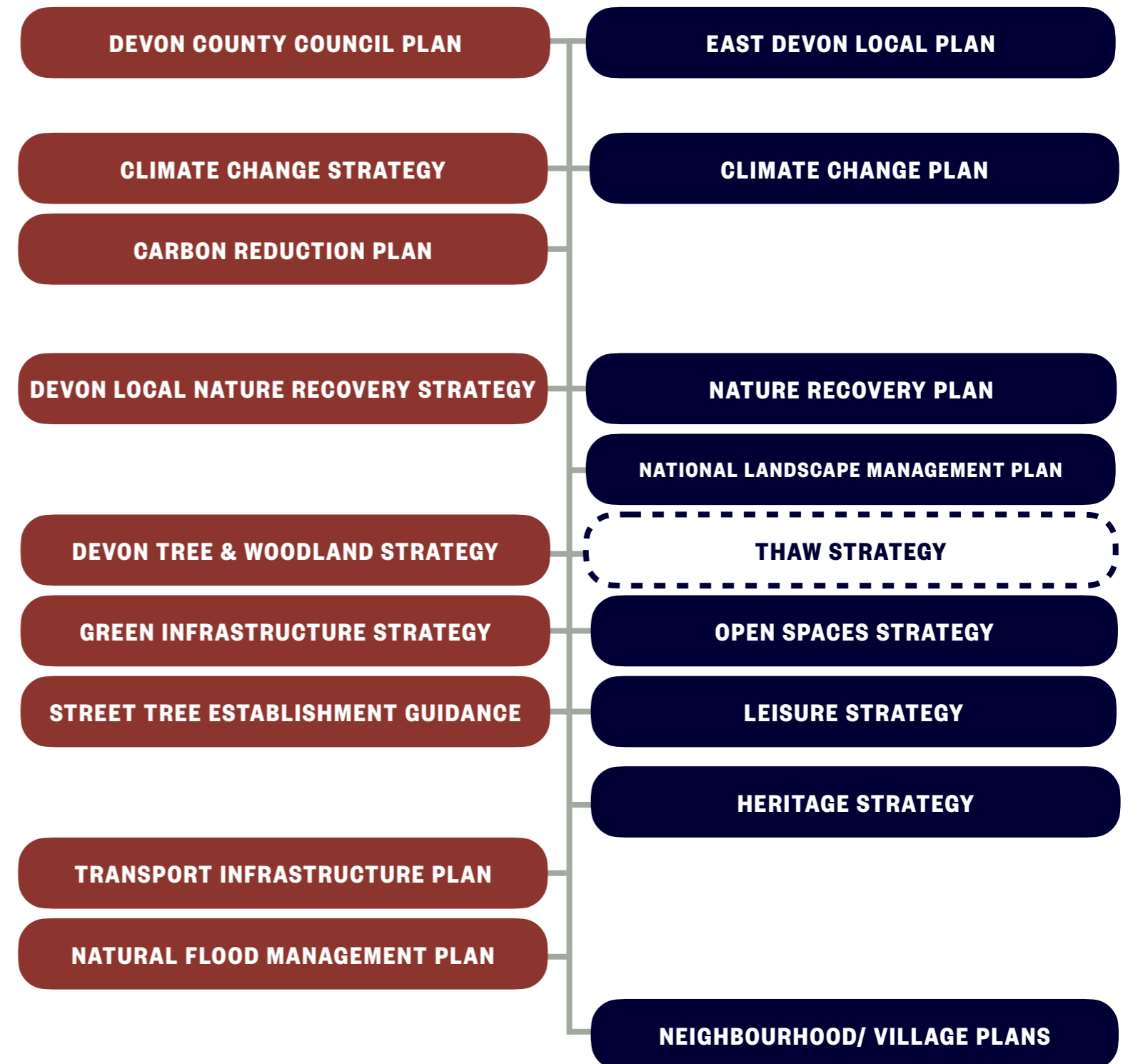


Figure xx. Diagram indicating how the THAWS fits in with other Devon (red) and East Devon (blue) policies.

3.

Action Plan: Targets, Priorities and Actions

This section considers the physical structure of the trees hedges and woodland from various perspectives. It does not cover the management of those trees which is covered in a later section.

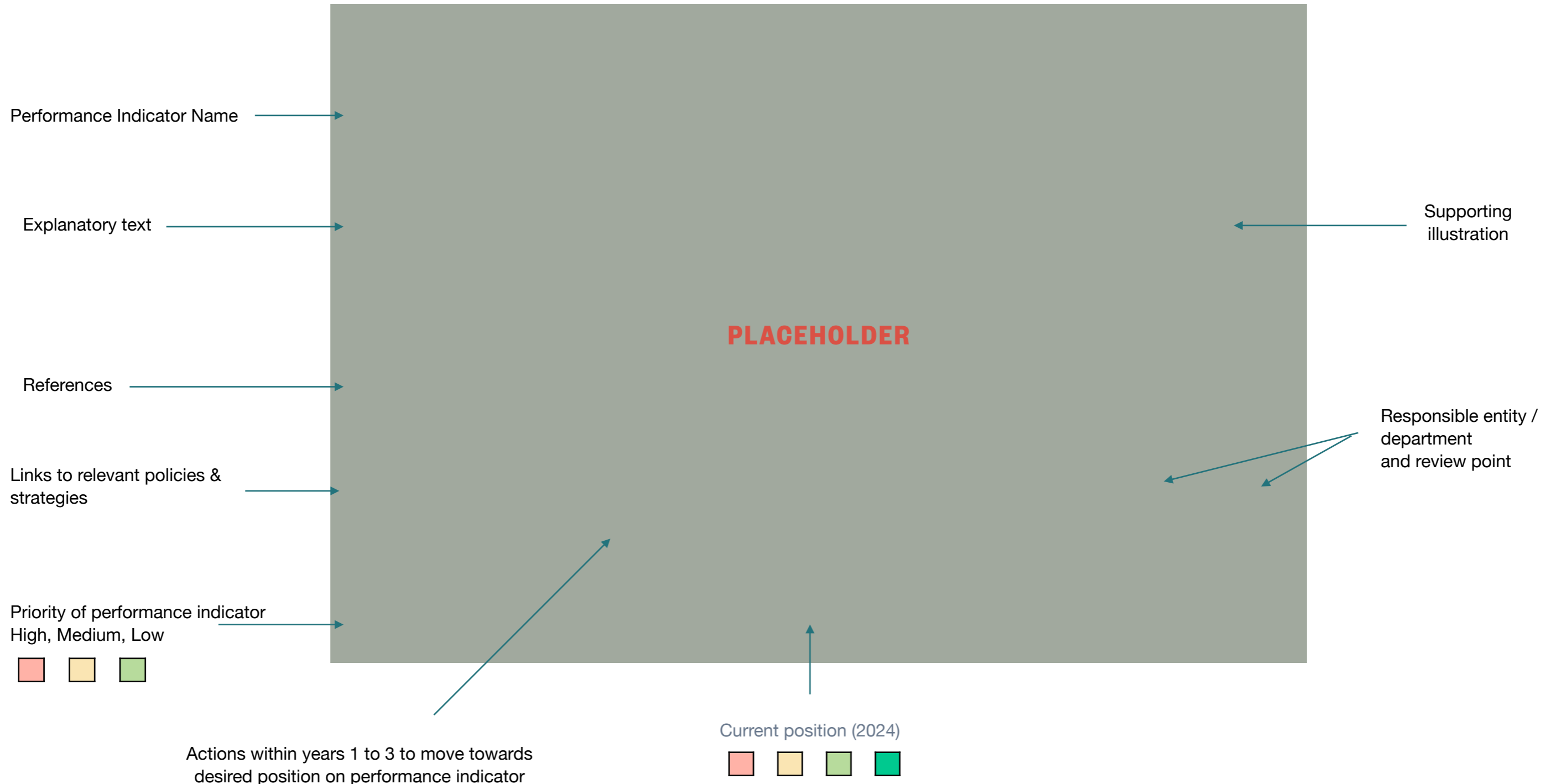
3 Using this document

This section of the strategy is divided into three parts:

3.1 East Devon’s Trees, Hedges and Woodlands considers the current extent and physical structure of the trees hedges and woodland across the district from various perspectives with recommendations for further data gathering, monitoring and target setting for their enhancement.

3.2 Community Framework considers the role of local governance and opportunities for working with communities, NGOs, businesses and private landowners for a successful, long term approach to establishment and management of trees, hedges and woodlands.

3.3 Sustainable Resource Management Approach deals with the practical management of the trees, hedges and woodland resource. Each of these parts is broken down into a series of related topics using a standardised format as illustrated below which includes a brief analysis and illustration of each topic, identified priorities and actions, together with key performance indicators showing the overall current rating and target for improvement.



Please note. Whilst in theory, ‘Optimal’ is the desirable state for each target, the goal for each has been determined, taking into account the limitations presented by time and resources. One consequence of this is the prioritisation of some activities over others, which manifests itself as a lower target for lower priority areas.

3.1 Targets, Priorities and Actions

T1 Tree Canopy Cover (Links to R3)

Tree Canopy Cover (TCC) or tree cover is defined as the area of leaves, branches and stems of trees covering the ground, across a given area, when viewed from above. Assessing canopy cover is relatively simple to determine and can be calculated at relatively little expense. This helps determine nature connectivity and is a good indicator of the scale of ecosystem services provided by trees as the majority of benefits are directly related leaf area.

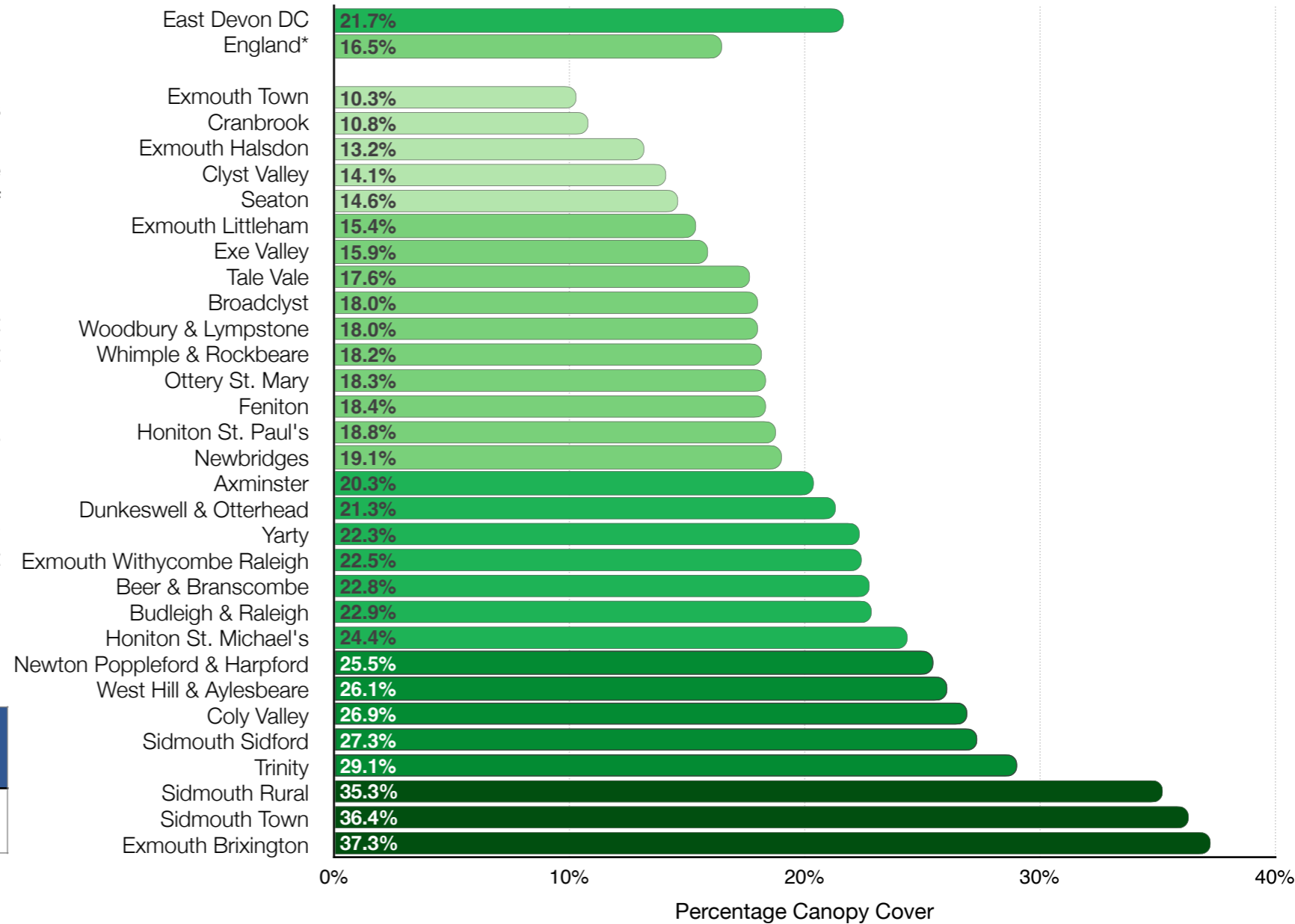
There are many methods of assessing canopy cover at this scale, including i-Tree Canopy, i-Tree Eco, Sentinel satellite data and Bluesky National Tree Map. These methods are not directly comparable with each other as they use different metrics and definitions of what constitutes canopy cover.

Treeconomics have conducted a TCC assessment using Google Environmental Insights Explorer (EIE). The example in Figure 1 of urban and rural analysis allows a more nuanced examination of canopy cover at greater detail than District wide. This data has been overlaid with National Forest Inventory (NFI) data to assess the contribution to TCC provided by woodlands (broad-leaved, coniferous & riparian), orchards and hedges, whilst separating urban TCC from rural TCC. The use of EIE data allows for a repeatable and comparable assessment of TCC over time.

A 30% tree canopy cover target for the district is a proposed ambition for the strategy.

Geography	Total Tree Cover	Urban Tree Cover	Rural Tree Cover	Source
East Devon	21.7%	12.6%	22.7%	Google Environmental Insights Explorer (2024)

Table 2: Average Urban Tree Cover Estimates



Link to relevant corporate policies
Devon Tree and Woodland Strategy
EDDC Nature Recovery Plan
National Landscape Management Plan

Actions	Responsibility	Review
<ol style="list-style-type: none"> Carry out a detailed assessment to establish accurate potential canopy cover for EDDC land Assess potential canopy cover for Cranbrook & Exmouth (based on current planting levels/ existing trees) Review every 10 years by carrying out a canopy cover assessment 		

Priority	Key Performance Indicators showing current position			
	Low	Moderate	Good	Optimal
Medium	The existing canopy cover equals 0–25% of the target.	The existing canopy cover equals 25–50% of the target.	The existing canopy cover equals 50–75% of the target.	The existing canopy cover equals 75–100% of the target.

3.1 Targets, Priorities and Actions

T2 Size (Age) Diversity

A healthy treescape relies on its age diversity to maintain its ability to maximise benefits to residents and visitors of East Devon. Size can be used as a broad proxy for age when dealing with vast numbers of trees. Larger, older trees such as veteran trees typically provide more benefits than smaller, younger trees and therefore must be protected and managed appropriately. Younger trees are vital to maintaining a healthy and sustainable forest by providing lower canopy and ensuring trees which are naturally lost or felled for safety are replaced.

Generally, the most accurate way to gauge age diversity is to compare current tree size in each species (in terms of diameter at breast height, or DBH) to the maximum diameter for that species¹⁶. The goal would then be to maintain a tree population that is unevenly distributed among different age classes, making sure that there are enough juvenile trees for the future such as that shown in Figure 4 by Richards 'Ideal' Distribution.¹⁷

The data used for these assessments reflects the urban tree population recorded in Ezytreev, which may lack younger trees as they are generally not surveyed or recorded for risk management purposes. This limitation should be considered when interpreting the age diversity of East Devon's trees. However, it is not particularly useful or accurate when considering hedges where height, width, density, and health are more useful metrics. Devon Hedge Group provides more detail on hedges across East Devon and their makeup. It is also important to strive for an understanding of age diversity across the entire tree population – including public trees in parks and natural areas, trees on private property, hedgerows, and public and private woodlands. Understanding how the population varies geographically is important too, across the district, at a neighbourhood level, and in urban vs rural areas.

Sources and references:

16 Kimmins, J. P. (2004). Forest Ecology: A foundation for sustainable forest management and environmental ethics in forestry, Ed 3., Prentice Hall, Minnesota

17 Richards, N.A., (1982/1983). Diversity and stability in a street tree population. Urban Ecology 7, 159–171 – as cited in McPherson, Urban Forestry & Urban Greening 12 (2013) 134– 143.

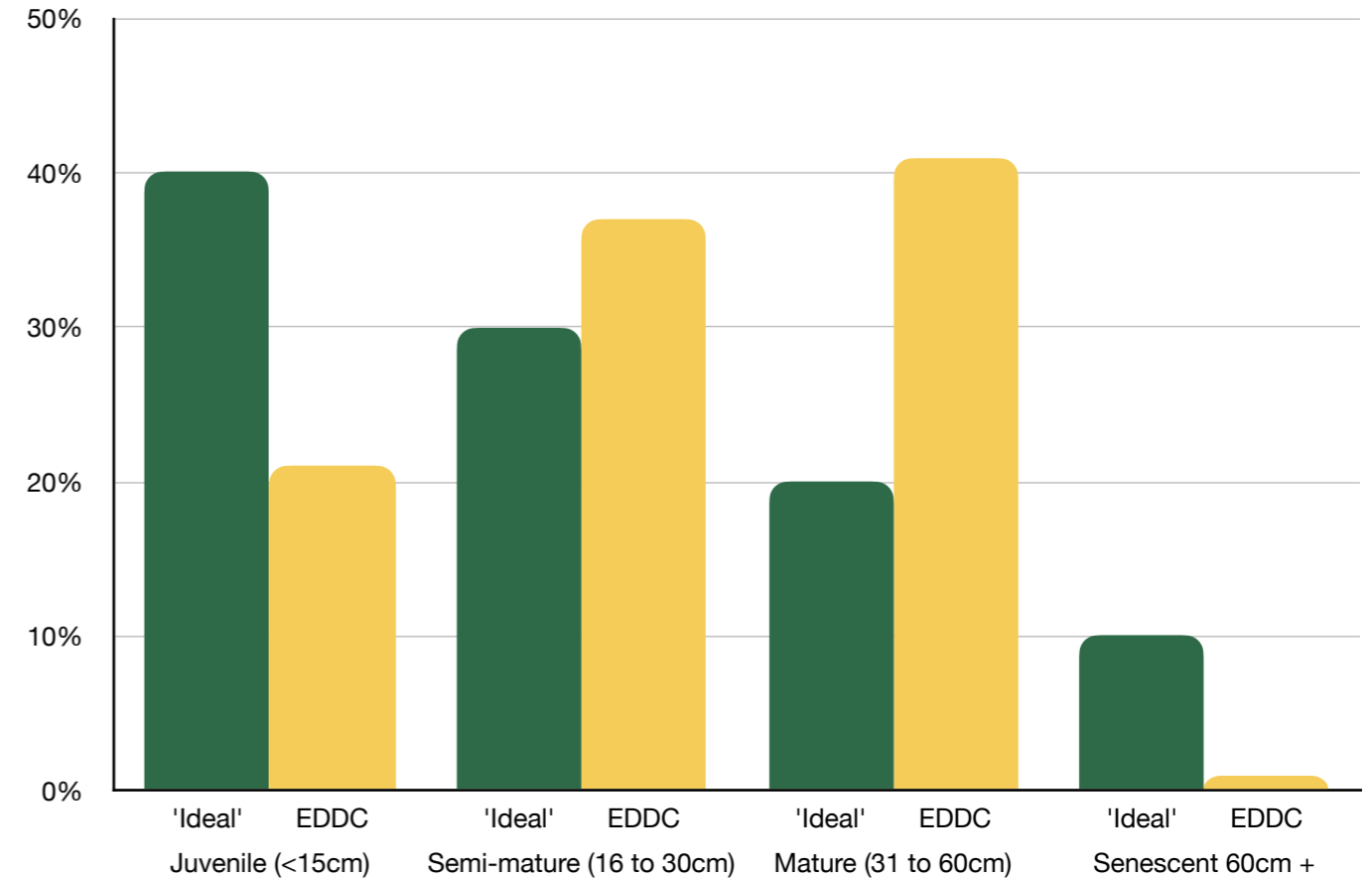


Figure 4: Richards "Ideal" Distribution of Tree Age Across the Urban Forest Showing Typical Stem Diameter for Each Age Class, and the Size Class Distribution of East Devon's Council Owned Tree Population (the EDDC data is not representative of the district as a whole as it only shows inventoried trees)

Link to relevant corporate policies
Local Nature Recovery Strategy East Devon Local Plan

Actions	Responsibility	Review
<ol style="list-style-type: none"> 1. Improve accuracy of age diversity data through other sources, e.g., BS 5837. 2. Incorporate DCC tree inventory & Sidmouth i-Tree data into this KPI. 		2034

Priority	Key Performance Indicators showing current position			
	Low	Moderate	Good	Optimal
Low	Even age distribution or highly skewed toward a single age class.	Some uneven distribution, but most of the tree population falls into a single age class.	Total tree population across district approaches an 'ideal' age distribution of 40% juvenile, 30% semi-mature, 20% mature, and 10% senescent.	Total population approaches that ideal distribution district-wide as well as at the ward level.

3.1 Targets, Priorities and Actions

T3 Species Diversity

Species diversity is an important aspect of trees and woodlands to monitor as it underpins the wider concept of biodiversity within our treescapes, woodlands, and ecosystems. The taxonomy of trees is categorised into families, genera, species and varieties. Having a mix of these is what is commonly understood to be a diverse treescape. Sufficient tree diversity can increase overall resilience in the face of biotic and environmental stresses and threats. Many biotic threats target individual species, so in aggregate, a more diverse tree-scape is better able to deal with possible changes in climate or pest and disease impacts.

Understanding the species diversity of EDDC’s existing trees and woodland is a vital first step. From there, tree planting and management plans can enhance the diversity in line with the recommendations of EDDC’s action plans for future management. Diversity should be monitored across the whole tree population, both public and private, rural and urban, to provide a complete picture. This will help with decisions of species selection towards better diversity, reducing dominance and reliance on any single species.

In addition to trees and woodlands, Devon’s hedges play a significant role in biodiversity. The species composition of hedges is highly varied across the district, reflecting differences between rural and urban areas and across landscape character types. The Devon Hedge Group¹⁷ provides an interactive map of the distinctive hedge types in Devon, offering insight into their species richness and geographic distribution.

Santamour’s 10-20-30 rule¹⁸ for species, genus and family, and Barker’s benchmark of 5% per species¹⁹ are useful tools in assessing and providing targets for species diversity; however these rules were developed to guide urban tree populations and are not suitable for rural or woodland populations. For landscape scale approaches Hubbell’s dominance diversity curves²⁰ are a more useful aid to visualise and plan for species diversity (see figure 5). The longer and shallower the curve, the more species and the more evenly distributed they are within the population, therefore (generally speaking) the better the diversity.

The Woodland Trust’s ‘Tree Species Handbook’²² (which accompanies the ‘Woodland Creation Guide’²³) identifies 10 to 30 dominant tree species associated with different types of woodlands across the UK.

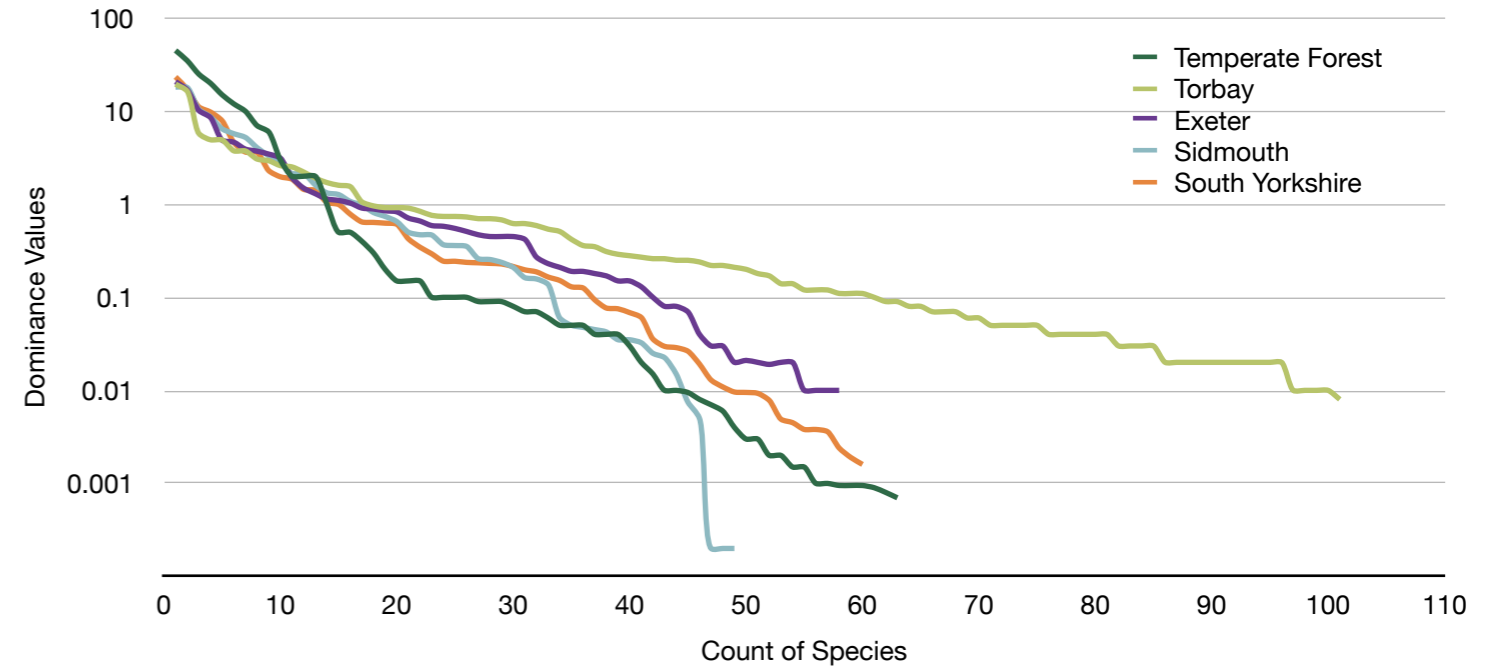


Figure 5. Dominance Diversity Curve showing example forest types and selected UK cities & towns.

Sources and references:

17 The Devon Hedge Group (2015)
 18 Santamour, F.S., 1990. Trees for urban planting: Diversity, uniformity and common sense, in: Proceedings of the Conference Metropolitan Tree Improvement Alliance (METRIA). pp. 57–65.
 19 Barker, P.A., 1975. Ordinance Control of Street Trees. Journal of Arboriculture. 1. pp. 121-215.
 20 Hubbell, S.P., 1979. Tree Dispersion, Abundance, and Diversity in a Tropical Dry Forest: That tropical trees are clumped, not spaced, alters conceptions of the organization and dynamics. Science, 203(4387), pp.1299-1309.
 21 Beeauchamp, K. 2016 Measuring Forest Tree Species Diversity. Forest Research.
 22 Woodland Trust., 2022. Tree Species Handbook.
 23 Woodland Trust, 2022. Woodland Creation Guide.

Link to relevant corporate policies
Devon Local Nature Recovery Strategy (LNRS) EDDC Nature Recovery Plan National Landscape Management Plan

Actions	Responsibility	Review
1. Carry out a diversity study of EDDC’s urban tree stock 2. Improve accuracy through other sources, e.g., BS 5837.		

Priority	Key Performance Indicators showing current position			
	Low	Moderate	Good	Optimal
Low	Five or fewer species dominate the entire tree population across district.	No single species represents more than 10% of total tree population; no genus more than 20%; and no family more than 30%.	No single species represents more than 5% of total tree population; no genus more than 10%; and no family more than 15%.	At least as diverse as “Good” rating (5/10/15) district-wide – and at least as diverse as “Moderate” (10/20/30) at the neighbourhood level.

3.1 Targets, Priorities and Actions

T4 Species Suitability

Selecting a broad array of species which are well suited to their environment, whether that is urban or rural is fundamental to the concept of species suitability. Trees have unique needs; all tree species have different genetic characteristics and growth strategies which have been developed to maximise survival and growth in their natural habitats. Climate, soil, and other environmental aspects can affect their ability to survive and thrive.

Urban contexts create greater external stresses than trees experience in their natural habitat. This can limit their lifespan and increase vulnerability to pests and diseases. Securing species suitability means trees are less likely to be placed under those stresses and more likely to reach maturity.

The urban and rural context is also going to change under the impact of climate change. Predictions from the UK Meteorological Office forecast warmer wetter winters, hotter, dryer summers and stronger winds. Even that simplistic high level summary is enough to indicate that some species will struggle in the future. Such factors need to be taken into account today when making tree species selection decisions. Many of our native species will be closer to the edge of their suitability range under even the best case scenarios now being envisaged.

Table 1 shows the expected suitability of the most common tree species in East Devon’s Council owned tree inventory. Under the current climate, most species displayed are comfortably within their survival range, but in the worst case scenario by 2090 most species are expected to struggle.

Species	2020 Current suitability	2050 Emissions Limited	2090 Business as Usual
English Oak	9	9	6
Common Ash	9	9	6
Sycamore	9	9	2
Silver Birch	9	9	6
Holm Oak	9	11	11
Cherry species	9	9	6
Lime species	11	9	6
Field Maple	9	9	6
Norway Maple	9	9	6
Beech	9	9	6

Table 1. Species suitability under 3 climate scenarios for the most common species in East Devon’s tree inventory.

Current is based on the climate of 2020.
 2050 Emissions Limited uses the SSP2 or RCP4.5 emission scenario as laid out by the IPCC.
 2090 Business as Usual uses the SSP3 or RCP7.0 emission scenario as laid out by the IPCC.

11 - Middle of natural range
 9 - Middle of Botanic Garden range
 6 - Shoulder of Botanic Garden range
 2 - Not known but possible to survive

Sources and references:

Climate Change Alliance of Botanic Gardens. 2024. Climate Assessment Tool v1. Botanic Gardens Conservation International. Richmond, U.K. Available at <https://cat.bgci.org>. Accessed on 12/08/2024.

Link to relevant corporate policies
Street Tree Establishment Guide DCC Right Tree Right Place LNRS

Actions	Responsibility	Review
<ol style="list-style-type: none"> Assess species suitability across East Devon for a changing climate (incorporating BS5837 & DCC tree data) Create a Tree Establishment Strategy for East Devon 		

Priority	Key Performance Indicators showing current position			
	Low	Moderate	Good	Optimal
Medium	Fewer than 50% of all trees are from species considered suitable for the area and for projected climate.	>50%-75% of trees are from species suitable for the area and for projected climate.	More than 75% of trees are suitable for the area and for projected climate.	Virtually all trees are suitable for the area and for projected climate.

3.1 Targets, Priorities and Actions

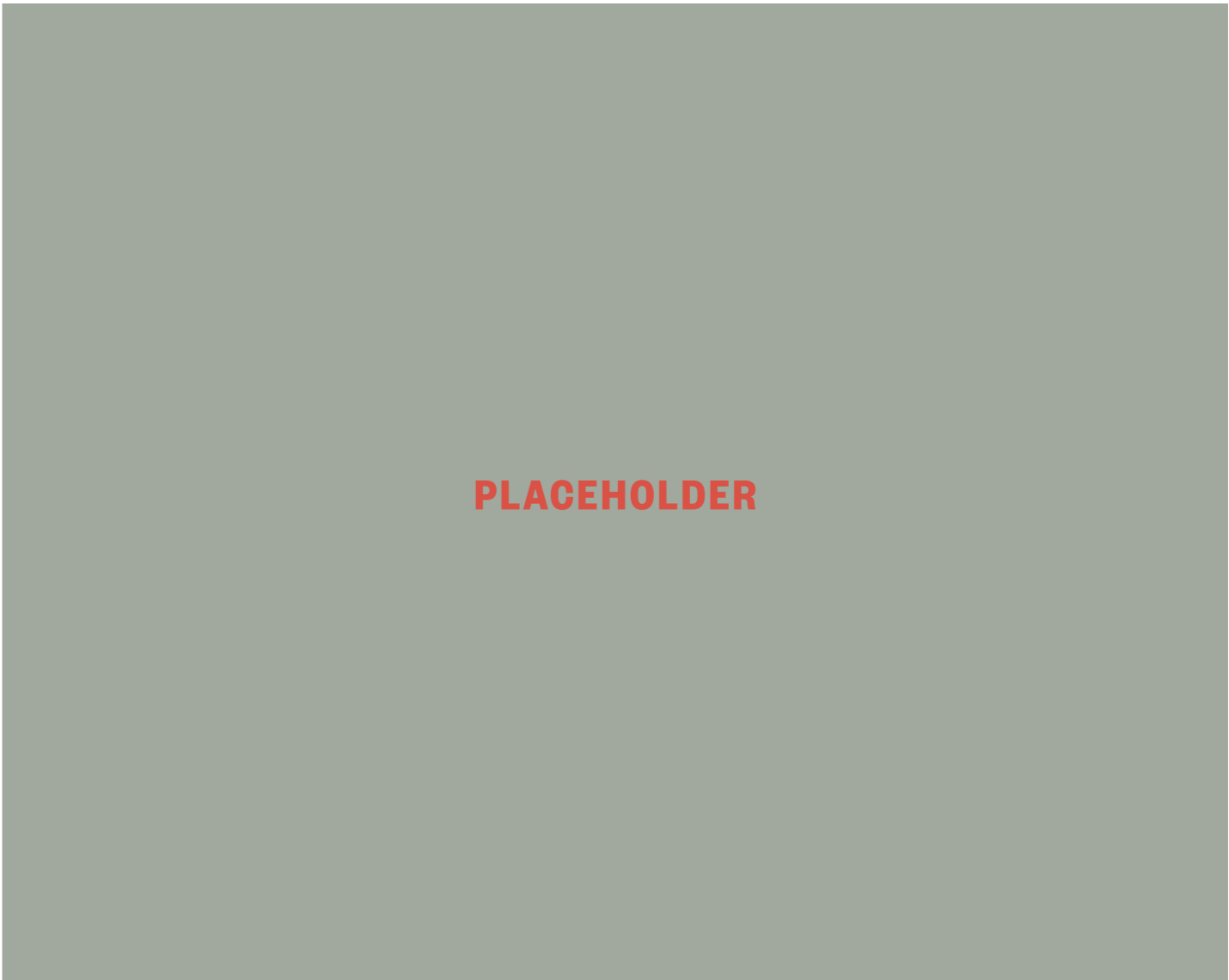
T5 Publicly Owned Trees in the Urban Environment

Trees managed individually, such as street trees and some park trees, are considered to be “managed intensively,” according to arboricultural techniques. These trees are often pruned, surveyed, and otherwise monitored for the safety of the public and the wellbeing of the individual tree.

Understanding how many trees are managed in this way and what this type of management entails will help provide a baseline for improving future ‘intensive’ practices. A tree inventory (such as East Devon’s Council-owned tree inventory) documenting these trees, their location, species, health, etc is invaluable for tree maintenance and risk management.

It can also form the basis of a detailed community engagement tool, enabling people to learn and understand more about the individual trees that they pass in the streets where they live and work. Such information has proved instrumental in improving care of trees by residents.

Target links to R10 & R12



Link to relevant corporate policies
Devon Local Nature Recovery Strategy (LNRS) Street Tree Establishment Guide Exeter and East Devon Green Infrastructure Strategy

Actions	Responsibility	Review
<ol style="list-style-type: none"> 1. Carry out a complete risk management strategy, and plan for the inventory of EDDC trees in Ezytreev 2. Provide training equivalent to LANTRA Basic Tree Survey & Inspection to Street Scene Officers 3. 		

Priority	Key Performance Indicators showing current position			
	Low	Moderate	Good	Optimal
High	Condition of publicly owned treescape is unknown.	Sample-based tree inventory indicating tree condition and risk level.	Complete up to date tree inventory that includes detailed tree condition ratings & reviewed every 5 years	Complete tree inventory that is GIS-based and includes detailed tree condition as well as risk ratings.

3.1 Targets, Priorities and Actions

T6 Publicly Owned Woodlands and Natural Areas (Links to R10)

Trees in woodlands or other natural areas are typically “managed extensively,” as a group, whereas trees managed individually, such as street trees, are considered to be “managed intensively,” according to arboricultural techniques (See T5). Park trees can fall into either category, depending on how they are managed.

Understanding how many trees are managed in this way and what this type of management entails will help provide information for improving future ‘extensive’ practices.

Natural area surveys that incorporate patterns and structures of ecological functions would be useful. Woodland fragmentation, recreational overuse, disturbance and invasive species such as Rhododendron have all been highlighted as issues of serious concern, which are as yet unquantified.

Developing individual management plans and a web map for these areas can be a useful tool for both management, community engagement and connectivity. Current ‘extensive’ management methods should be reviewed and updated if necessary to reflect best practice and the unique situation of each woodland area, whether ancient woodland, productive plantation, young and pioneering, or newly created.

Woodlands should be connected through green corridors such as hedgerows and linear tree features, and rivers and waterways, to promote the movement of wildlife and broaden the genetic pool for plants and animals alike, thereby boosting biodiversity and resilience.

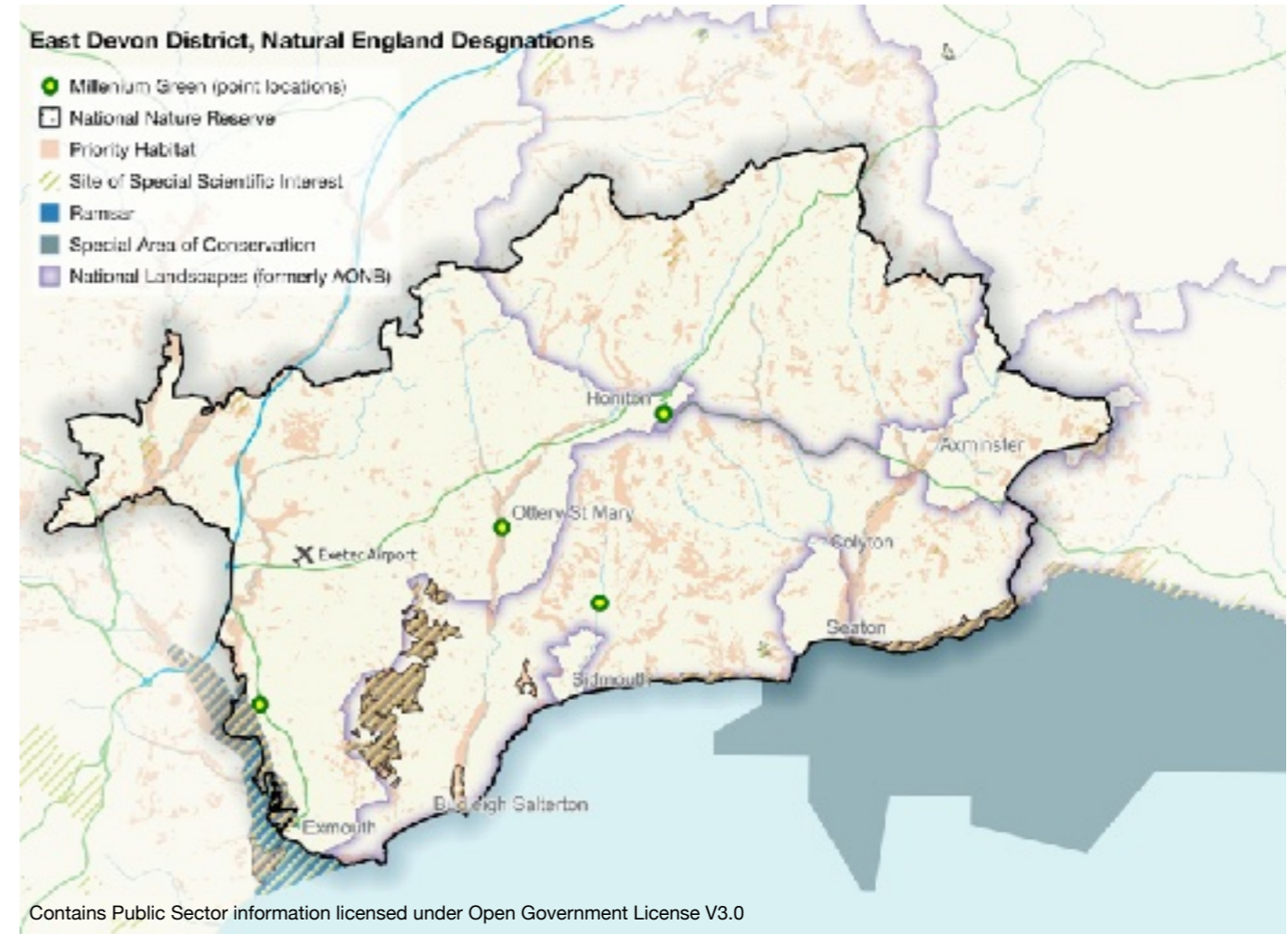


Figure xx. Public green space designations across East Devon.

NB. Some areas fall under multiple landscape characteristics.

Link to relevant corporate policies
Devon Local Nature Recovery Strategy (LNRS) Devon Tree and Woodland Strategy EDDC Nature Recovery Plan National Landscape Management Plan

Actions	Responsibility	Review
1. Improve habitat connectivity of the wider landscape through tree and hedge planting on new developments (where possible) 2. Migrate woodland and other natural environment data to a publicly accessible web-map.		

Priority	Key Performance Indicators showing current position			
	Low	Moderate	Good	Optimal
	Limited information about publicly owned natural areas.	Publicly owned natural areas identified in a “natural areas survey” or similar document or on webmap.	Survey document also tracks level and type of public use in publicly owned natural areas.	In addition, usage patterns, ecological structure and function of all publicly owned natural areas are also assessed and documented.

3.1 Targets, Priorities and Actions

T7 Trees and hedges on Private Property

Tree owners, whether an individual or large estate have a legal duty of care to take reasonable steps to ensure no harm is caused to person or property even where trees are protected by a TPO or fall within a CA. Therefore, privately owned trees rely on property owners taking an active role in tree management. Developing the tools to help tree owners manage their trees can become a significant factor within management of the totality of the trees, hedges and woodlands across the District. This can simply mean understanding the extent of the tree estate that is outside public ownership.

A full inventory of trees on private properties is difficult, however many will fall into conservation areas, whilst others will be recorded within tree preservation order's (TPO). Fully collating the data already held on these trees may be useful in combination with an ecosystem services survey.

Some private landholders may be interested in collaboration, particularly educational bodies such as universities, colleges and schools. Engaging with these stakeholders is a good way to understand their trees as part of the wider East Devon population whilst also promoting other research projects, and community engagement.

For homeowners and small land holders, signposting clear, accessible guidance on tree planting, establishment, species choice, and management of trees and hedges (eg. [The National Tree Safety Group - Common Sense Risk Management of Trees](#) and [The Devon Hedge Group](#)) is a good way to improve the health and diversity of trees and hedges, particularly in urban spaces.



Link to relevant corporate policies
Devon Green Infrastructure Strategy Exeter and East Devon Green Infrastructure Strategy

Actions	Responsibility	Review
<ol style="list-style-type: none"> 1. Provide online advice on tree, hedge & woodland management 2. Review and update existing TPOs 3. Map hedges and trees on private property across East Devon 		

Priority	Key Performance Indicators showing current position			
	Low	Moderate	Good	Optimal
	No information about privately owned trees.	Aerial, point-based assessment of trees on private property, capturing overall extent and location.	Bottom-up, sample-based assessment of trees on private property, as well as basic aerial view (as described in "Moderate" rating).	Bottom-up, sample-based assessment on private property, as well as a detailed Tree Canopy Cover (TCC) analysis of entire treescape, integrated into district-wide GIS system.

3.1 Targets, Priorities and Actions

T8 Natural Regeneration & Habitat Restoration (Link to R10)

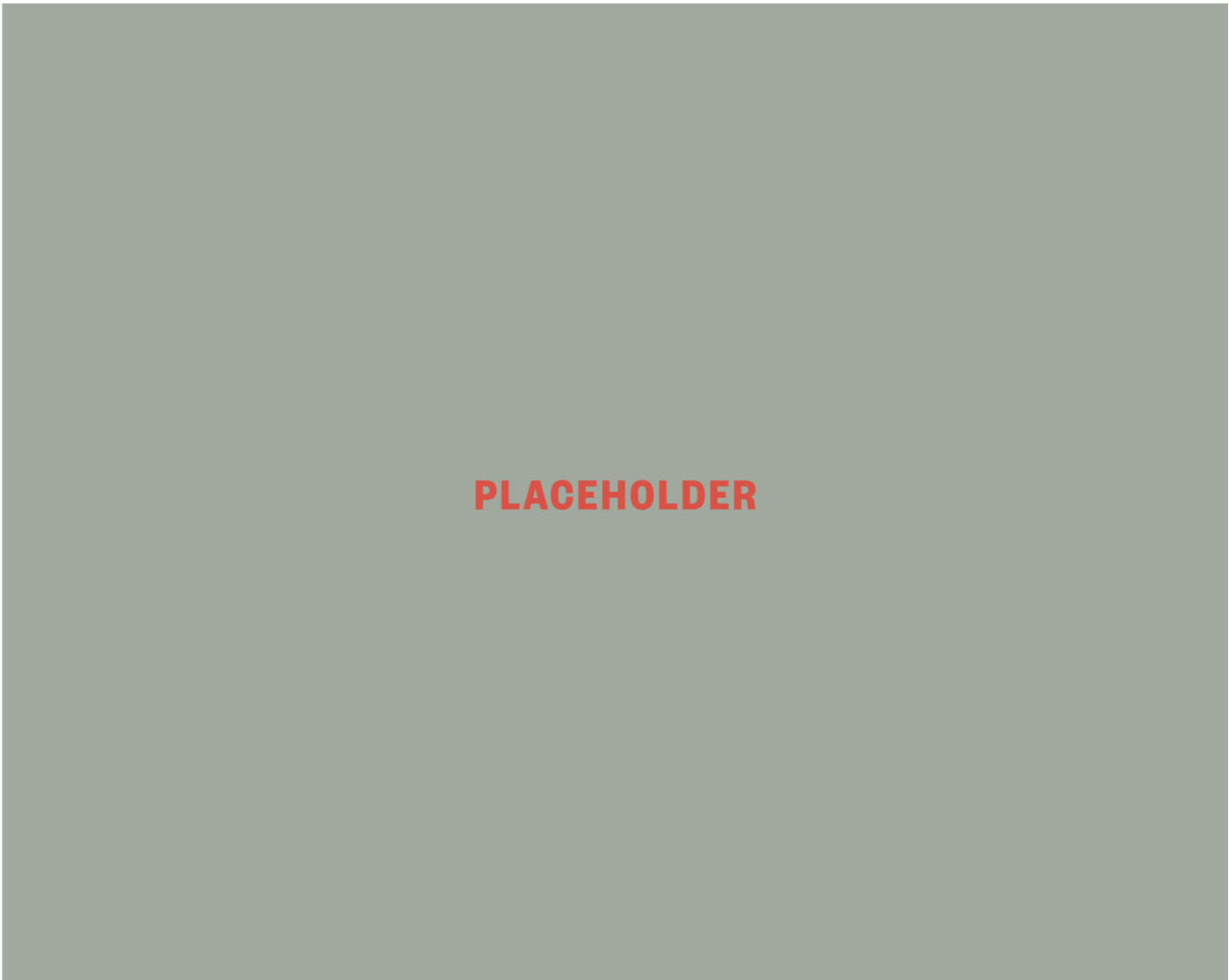
Habitat restoration through natural regeneration is a key component of East Devon's policy and strategy. It relies on natural processes over time, allowing ecosystems to recover holistically. For example, at Holyford Woods Local Nature Reserve, a 12-hectare conifer plantation was felled and left to regenerate naturally, demonstrating the effectiveness of this approach. Natural regeneration should play a central role in woodland restoration wherever feasible.

EDDC's Nature Recovery Plan promotes sustainable land management practices, such as agri-environment schemes and habitat creation initiatives, while fostering collaboration among stakeholders, including communities and landowners, to support wildlife corridors and enhance ecological resilience.

Hedge recovery should be prioritised as part of the push for connectivity of woody habitats. Minimal maintenance is preferred, particularly away from roads. Techniques like rotational hedge-laying create thick, stock-proof hedges while allowing bushier growth between cycles, though this method is labour-intensive. Alternatively, leaving hedges to grow into mature linear woodlands offers significant ecological & climate benefits. Fencing can manage livestock movement, and allowing hedges to mature also supports agricultural benefits, as livestock gain access to woody browse and herbal grazing.

Natural regeneration provides valuable benefits for natural flood management by increasing soil infiltration and reducing surface runoff, which helps slow water flow during heavy rainfall. Regenerating habitats also support nutrient neutrality by filtering pollutants and excess nutrients, preventing them from entering watercourses. This is particularly critical for riparian woodlands, which protect waterways from agricultural runoff and help maintain healthy aquatic ecosystems.

The council's Nature Recovery Plan recognises that in some cases, such as heathland conservation or maintaining woodland glades, where tree removal is necessary to restore valuable open habitats and protect species reliant on them.



Link to relevant corporate policies
Devon Local Nature Recovery Strategy (LNRS) Natural Flood Management Guidance EDDC Nature Recovery Plan National Landscape Management Plan

Actions	Responsibility	Review
1. Work to establish ecologically robust locally relevant habitat banks. 2. Map sites suitable for natural regeneration		

Priority	Key Performance Indicators showing current position			
	Low	Moderate	Good	Optimal
	Minimal efforts with no formal tracking of land area designated for natural regeneration and habitat restoration	Initial baseline survey and identification of designated areas for NR+HR with basic monitoring of plant and animal species	Established biodiversity index, expanding of NR+HR areas, regular surveys; detailed tracking of species' health and growth	Comprehensive GIS-based mapping of NR+HR areas, detailed biodiversity index, high survival rates of NR species, and extensive monitoring and reporting

3.1 Targets, Priorities and Actions

T9 Beavers and the Treescape

As the first District in England to have beavers recorded as living wild since their extermination by humans in 1789, it is appropriate for this strategy to feature this large herbivorous mammal with a particular relationship with East Devon’s trees. In October 2022, beavers were granted legally protected status and the East Devon population, now thought to be present since 2008, was allowed to grow and spread naturally. Since this legal status was announced, populations of beavers have also been confirmed on the Exe and Clyst.

Beavers are large herbivores that browse on a wide range of bark, shoots, leaves and roots, from riparian to aquatic vegetation. They fell trees for food but also building materials for constructing their dams and lodges. Their dams are created away from the main river channel to make larger areas of open water and wetland, in which the animals prefer to spend the majority of their active time. Lodges are created above burrows dug into the riverbank and are not placed on dams, as is the case with the north American and Canadian beaver.

Beavers prefer softwood tree species such as willow, birch, alder, and hazel, but their diet can adapt. When they fell deciduous trees, it doesn’t kill the tree but stimulates regeneration, creating multiple stems from the base, similar to human coppicing. This process can extend the lifespan of certain trees, strengthen riverbanks, and improve light conditions for aquatic ecosystems, benefiting a variety of plant and animal life.

Tree felling by beavers can sometimes be undesirable or hazardous, particularly near sensitive riparian zones. Protective measures, detailed in the *Beaver Management Handbook*, may be needed to safeguard certain trees. Any actions affecting beavers, their dams, or lodges must be carried out by licensed operatives.

Beavers are a welcome and legally protected part of our countryside and EDDC Tree, Hedgerow and Woodland Strategy recognises this status and will only move to intervene in beaver activity, through a fully licensed officer, when there is a threat to life, property or business and when no alternative solution or mitigation can be found.



Figure xx: Beaver on the bank of East Devon’s River Otter. Source: Devon Wildlife Trust.

Link to relevant corporate policies
The East Devon Local Plan Devon Tree and Woodland Strategy Exeter & East Devon GI Strategy Devon Hedges Management Advice

Actions	Responsibility	Review
<ol style="list-style-type: none"> Support and participate in the East Devon Beaver Management Group. Ensure key officers have CL51 licence to intervene where necessary in beaver dams and lodges legally. Promote best practice for landscape management with free living beavers to other stakeholders and partners. 		

Priority	Key Performance Indicators showing current position			
	Low	Moderate	Good	Optimal
	No information about other elements of the treescape.	An assessment of existing elements of the treescape has been carried out and a green infrastructure baseline has been established.	Establish relevant local targets. Identify opportunities for new greening in development.	Beaver population spreading throughout the otter catchment [achieved] and into neighbouring river systems with no significant negative impact on the riparian treescape.

3.1 Targets, Priorities and Actions

T10 Quantifying Tree and Hedge Benefits

Trees, hedges, and woodlands provide vital benefits that, although sometimes difficult to quantify, are increasingly recognised for their role in climate resilience, biodiversity, and human well-being. Valuing these contributions is crucial for their protection and integration into local strategies.

One of the key roles of trees is their contribution to climate change mitigation and adaptation. Urban trees and hedgerows reduce the urban heat island effect, filter air pollution, and provide shade, making cities more livable during hotter summers. Natural processes like carbon storage, water filtration, and stormwater runoff mitigation further enhance their value. Tools such as i-Tree Eco and CAVAT help quantify these ecosystem services and amenity values, supporting cost-benefit analyses and policy decisions. Local initiatives, like Sidmouth Arboretum’s 2014 & 2024 treescape surveys, exemplify the importance of assessing these benefits and inform planning and funding to support healthier landscapes.

Biodiversity is a key benefit of trees and hedgerows, as diverse species create habitats that sustain wildlife, fostering the intricate connections essential for thriving ecosystems. The council’s Nature Recovery Plan, including projects like the Lower Otter Restoration, shows how habitat restoration and wildlife corridors boost biodiversity, resilience, and carbon sequestration, helping species adapt to environmental changes.

Hedges, in particular, play a vital role in connectivity, acting as wildlife corridors between fragmented habitats. Their management should prioritise biodiversity through light-touch maintenance or rotational hedge-laying, which balances ecological benefits with practicality. Where appropriate, hedgerows left to mature into linear woodlands can support biodiversity and agricultural systems. Underpinning all of this is the UK’s mandatory Biodiversity Net Gain (BNG) framework, which promotes habitat retention, enhancement, and replacement where loss is unavoidable. By incorporating tools like the Statutory Biodiversity Metric and protections for irreplaceable habitats, BNG ensures that trees and hedgerows are valued within development processes, driving better outcomes for biodiversity and ecosystem resilience.

About i-Tree:

i-Tree is a free to use, open-access suite of tools developed to assess the value of the urban forest and the ecosystem services provided which:

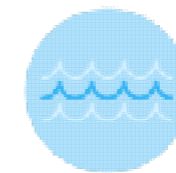
- Quantifies the benefits and values of trees around the world.
- Aids in tree and forest management and advocacy.
- Shows potential risks to tree and forest health.
- Is based on peer-reviewed international research.



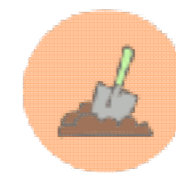
Urban Cooling



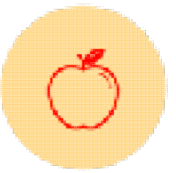
Rainwater Attenuation



Carbon Sequestration



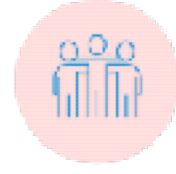
Foods



Carbon Storage



Pollution Removal



Amenity Value

About CAVAT:

Capital Asset Value for Amenity Trees (CAVAT) is regarded as one of the principal methods of tree valuation in the UK. It provides a method for managing trees as public assets rather than liabilities. It is designed not only to be a strategic tool and aid to decision-making in relation to the tree stock as a whole, but also to be applicable to individual cases, where the value of a single tree needs to be expressed in monetary terms.



Link to relevant corporate policies
The East Devon Local Plan EDDC Climate Change Strategy & Action Plan Natural Flood Management Guidance Open Spaces Strategy

Actions	Responsibility	Review
<ol style="list-style-type: none"> 1. Work with Tree Wardens to highlight the benefits of trees at local level. 2. Explore tree benefits for Council-owned trees using i-Tree Eco with the existing Inventory 3. CAVAT valuation of EDDC trees 4. Run a community MyTree Study across the district 		

Priority	Key Performance Indicators showing current position			
	Low	Moderate	Good	Optimal
	No comprehensive information available about tree benefits in the district.	Some information available on key tree benefits.	Sound information available on a key set of tree benefits, such as biodiversity, recreation, environmental services.	Comprehensive information available on all tree benefits across the district.

3.1 Summary - Trees and Urban Forest Structure

Key Performance Indicator	Current Performance Level				Priority
	Low	Moderate	Good	Optimal	
T1 - Tree Canopy Cover			Good		Medium
T2 - Size (Age) Diversity	Low				Low
T3 - Species Diversity	Low				Low
T4 - Species Suitability			Good		Medium
T5 – Publicly Owned Trees in the Urban Environment		Moderate			High
T6 – Publicly Owned Woodlands & Natural Areas				Optimal	
T7 – Trees & Hedges on Private Property		Moderate			
T8 – Natural Regeneration & Habitat Restoration					
T9 – Beavers & the Treescape		Moderate			
T10 – Quantifying Tree & Hedge Benefits	Low				

3.2

Community Framework

Targets, Priorities and Actions

This section considers the various communities that are required for a successful, long term approach to management of trees, hedges and woodlands. This covers not only the local residents, but local government in all its forms, NGOs and commercial entities.

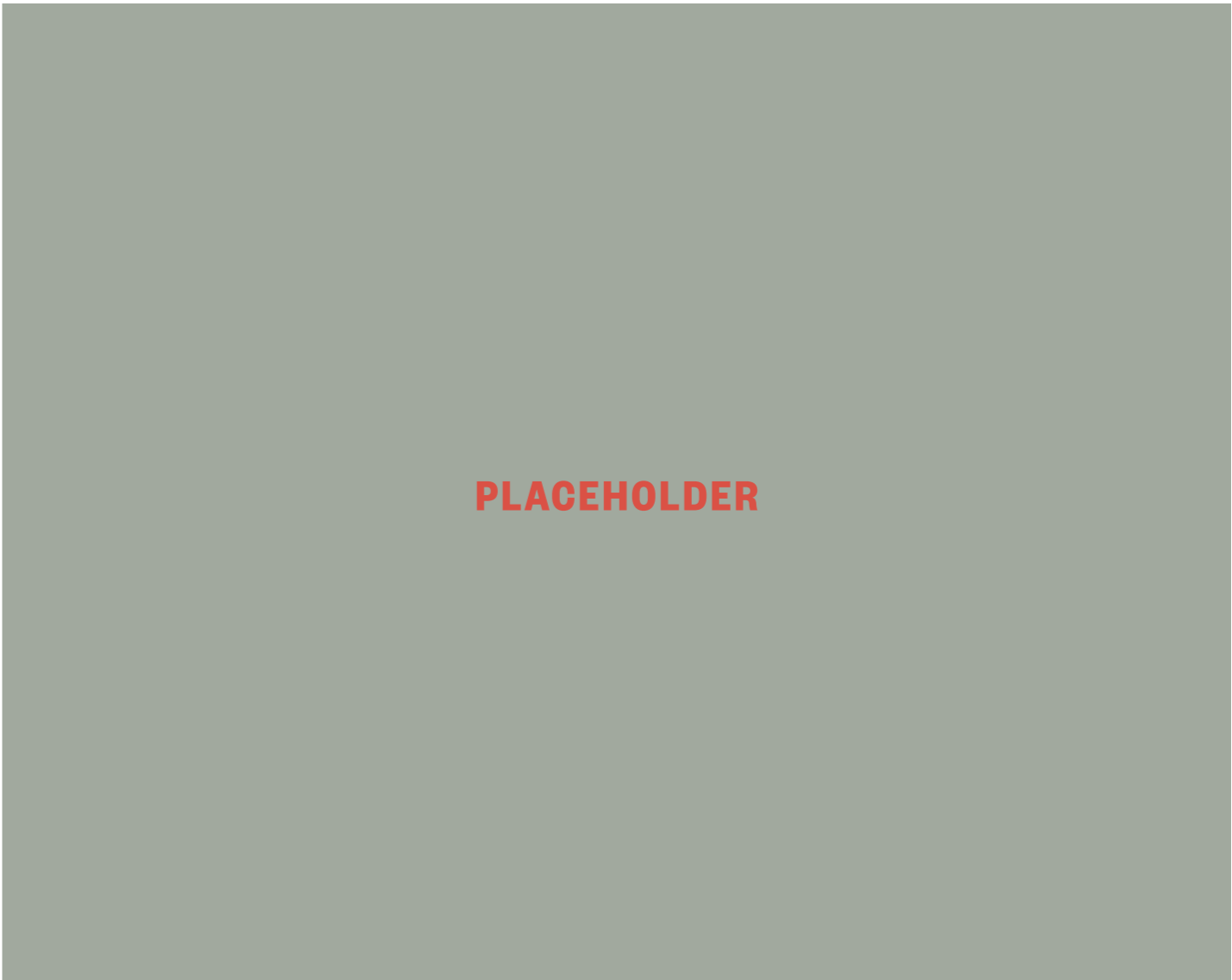
3.2 Targets, Priorities and Actions

C1 Governance and Inter-departmental Co-operation

This target aims to establish a path of leadership and cooperation for the successful delivery of the targets, priorities and actions within and relating to this Strategy, and to encourage all departments within EDDC to consult and collaborate with the tree and woodland managers on issues. Leaders must delegate responsibilities and ensure goals are delivered on time and on budget by partners and associates.

Regular communication across departments and agencies will be key to ensuring that trees, hedges and woodlands are considered to the fullest extent throughout the council. Key stakeholders to incorporate into this network are planning and development. Other key departments include housing, environmental health and parks & gardens, also parish councils, which although external to the council, still need to be involved in the process. Opening communication channels and interdepartmental teams can help to coordinate tree and woodland management by providing knowledge and guidance to all council departments when required in order to ensure that trees, hedges, woodland and green infrastructure are considered in full at all stages of decision making.

Assigning clear roles and responsibilities to District and Parish Council Members will help to maintain momentum for the strategy, and organising regular checkins and updates will help to cement two-way relationships. It also encourages the sharing of ideas and resources, which will make delivery of actions and targets easier at a lower level.



Link to relevant corporate policies
The UK Climate Change Act National Planning Policy Framework

Actions	Responsibility	Review
1. Engage in other department strategy consultations to promote the importance of trees, hedges and woodlands, and encourage them to consider how they can contribute to the targets and actions of this Strategy.		

Priority	Key Performance Indicators showing current position			
	Low	Moderate	Good	Optimal
	Agencies take actions impacting treescape with no cross-departmental coordination, consultation or consideration of the treescape resource. Leadership for trees, hedge & woodland management is fragmented.	Departments/agencies recognise potential conflicts and reach out to tree & woodland managers on an ad hoc basis – and vice versa.	Informal teams among departments and agencies communicate regularly and collaborate on a project-specific basis.	Tree, hedge & woodland policy implemented by formal interdepartmental/interagency working teams on all projects.

3.2 Targets, Priorities and Actions

C2 Community Involvement, Neighbourhood Action & General Appreciation of Trees, Hedges and Woodlands

In order for the strategy to be considered a true success, the most powerful legacy is that the residents love, respect, appreciate and care for its trees. Public consultation has already demonstrated the deep connection people feel towards the landscape, with 94% of respondents stating that trees, hedges, and woodlands are very important to East Devon's character, with 74% feeling there are too few trees in the district. Community initiatives, such as planting 1 tree per resident, could provide an invaluable opportunity to promote the progress made by the district in terms of urban greening and green infrastructure, while fostering this strong sense of local pride.

Existing schemes, such as public involvement in nature reserves, have demonstrated the value of community engagement. Activities like invasive species removal and habitat restoration show how residents can contribute to environmental care while building stronger community ties.

Community and resident groups will be encouraged to participate and collaborate with EDDC, alongside partnerships with Governmental and Non-Governmental Organisations (NGOs), in tree, hedge and woodland management activities. By collaborating with smaller community groups such as volunteers, schools, and charity organisations, EDDC can further deepen community involvement in projects that will benefit both small neighbourhoods and the wider district. Encouraging such involvement helps to strengthen the connection residents feel towards their natural environment and reduces the likelihood of conflict or opposition to tree planting efforts.

Widely publicising events year-round – making good use of digital communications and social media – such as National Tree Week (usually in late November to early December), Arbor Day, planting days (in winter), and outdoor events, will bring attention to East Devon's trees, hedges and woodlands, encouraging participation from those who live and work locally.



Link to relevant corporate policies
The East Devon Local Plan Open Spaces Strategy EDDC Leisure Strategy Exeter and East Devon GI Strategy

Actions	Responsibility	Review
1. Aim to have at least one Tree Warden in each ward of the district 2. Work with local arts sector to promote the benefits of trees 3. Increase engagement in community tree planting initiatives		

Priority	Key Performance Indicators showing current position			
	Low	Moderate	Good	Optimal
	Little or no citizen involvement or neighbourhood action.	Some neighbourhood groups engaged in advancing tree & woodland goals, but with little or no overall coordination with or direction by EDDC or its partnering NGOs.	At the neighbourhood level, citizens participate and groups collaborate with EDDC and/or its partnering NGOs in tree & woodland management activities to advance district-wide plans.	Many active neighbourhood groups and a tree officer in every ward engaged across the community, with actions coordinated or led by EDDC and/or its partnering NGOs.

3.2 Targets, Priorities and Actions

C3 Utilities and Insurance Co-operation

This target aims to ensure that all utilities companies – above and below ground – and insurers (in relation to subsidence complaints) employ best management practices and cooperate with the EDDC to advance goals and objectives related to tree, hedge and woodland issues and opportunities. This includes electric, gas, water, cable, telephone, fibre-optics, rail etc.

Utilities companies are required to follow certain standards for managing vegetation – including pruning branches, protecting roots, and performing overall management of trees and other vegetation that could impact their services. Local or national policies may also regulate certain utility management practices, such as overhead line clearance and the management of rail track-side trees. Introducing and enforcing best practice standards which protect trees, hedges and woodlands will be key, and collaboration with utilities could help advance the goals and objectives of the THaWS.

Insurance-related subsidence claims present another critical area for collaboration. A drying climate increases the risk of subsidence. Working closely with insurers to adopt evidence-based approaches is essential to ensure that trees are retained wherever possible. This includes identifying alternative mitigation methods, such as targeted root pruning or the use of structural solutions, rather than defaulting to tree removal. EDDC can play a pivotal role in facilitating these discussions and promoting solutions that balance risk management with tree retention.

Some utilities extend beyond the local area, such as river catchments. These areas are not constrained by political boundaries, and this should be taken into account when assessing how trees, hedges, woodlands and utilities interact. Water companies should be encouraged to develop systems in which trees provide a vital role in water management.



Link to relevant corporate policies
Devon Carbon Plan & Carbon Reduction Plan EDDC Climate Change Strategy & Climate Change Action Plan Natural Flood Management Guidance

Actions	Responsibility	Review
<ol style="list-style-type: none"> 1. Compile list of relevant utility providers and contacts 2. Set up initial engagement workshops with utility providers on trees in the built environment 3. Coordinate collaborative arrangements to meet the objectives of the plan (e.g. a tree charter that utilities can sign up to when they want to work on EDDC land and training courses on trees for relevant employees in these fields) 		

Priority	Key Performance Indicators showing current position			
	Low	Moderate	Good	Optimal
	Utilities take actions impacting treescape with no council coordination or consideration of the treescape resource.	Utilities employ best management practices, recognise potential municipal conflicts, and reach out to tree & woodland managers on an ad hoc basis – and vice versa.	Utilities are included in informal council teams that communicate regularly and collaborate on a project-specific basis.	Utilities help advance tree & woodland goals and objectives by participating in formal interdepartmental/interagency working teams on all municipal projects.

3.2 Targets, Priorities and Actions

C4 The Green Industry and Agriculture Co-operation

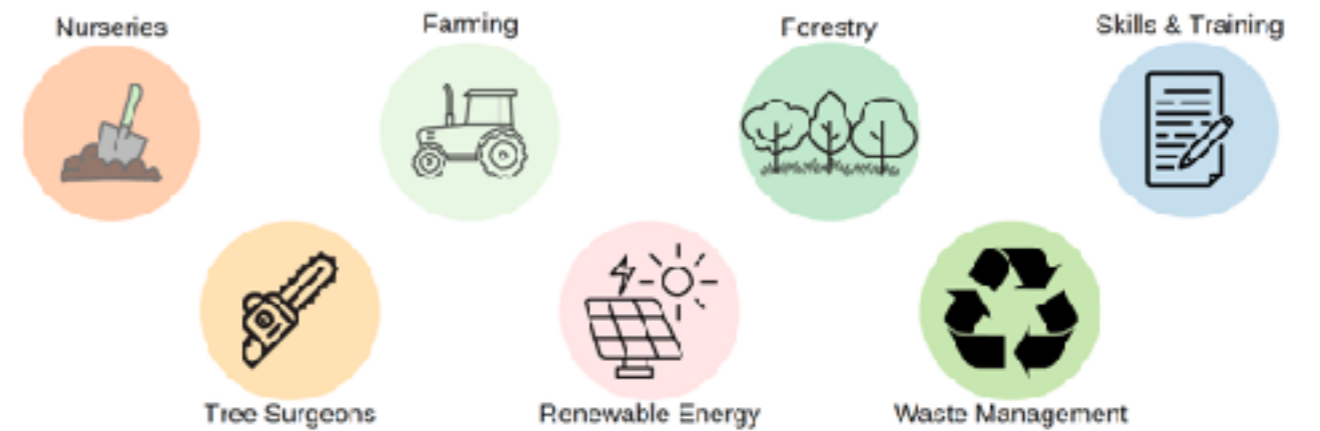
The “green industry” encompasses all professions and businesses that support or engage in tree and vegetation management activities, including landscapers, nurseries, garden centres, contractors, maintenance professionals, tree care companies, landscape architects, foresters, planners, developers, and large landowners such as the National Trust, Woodland Trust, and Clinton Devon Estates.

EDDC will collaborate with existing green industry partners to advance the District's tree, woodland, and hedge objectives while adhering to high professional standards. This work will be done, where appropriate, in conjunction with Devon County Council and local parish councils. In addition, EDDC will work closely with Bicton College, Exeter University, and local training providers to establish networks and pathways for job creation within the green sector, including apprenticeships. These partnerships will help to build skills, foster new careers, and create local employment opportunities within the sector. There will also be a focus on engaging Habitat Bank providers and exploring Green Finance initiatives to support sustainable growth and restoration efforts. Collaborating with these emerging sectors will further enhance the District’s environmental strategies and provide financial mechanisms for long-term management.

Close co-operation with the green industry offers an excellent opportunity to influence the management of forest resources on private property. Given the landholdings within East Devon, the key sectors for focus include: Farming, Forestry, Tree Surgeons and Renewable Energy (Wind & Solar).

Agricultural land can have huge potential for tree and woodland planting, and for encouraging full sized trees within hedges and along verges. Agroforestry involves the planting of trees on agricultural land with assumed benefits for existing agricultural processes. It includes typical farming such as cropland and pastures, but also orchards and wood pastures.

Working with farmers and land holders in agricultural areas is crucial for both tree planting and long term management of new and existing woodlands and hedges. Farmers and rural land holders must be involved to make this target successful. In East Devon, around 90% of land is considered rural, and it currently has tree canopy cover of 22.7%. This target can also feed into the targets of T7, T8, T10, T11 and C7.



Link to relevant corporate policies
Devon Carbon Plan & Carbon Reduction Plan EDDC Climate Change Strategy & Climate Change Action Plan

Actions	Responsibility	Review
<ol style="list-style-type: none"> List representatives and contact details for each relevant business or organisation (link to local AA approved companies on EDDC website) Coordinate collaborative arrangements to meet the objectives of the plan (e.g. a tree charter) Explore opportunities for skills building in the sector and potential courses and apprenticeship schemes 		

Priority	Key Performance Indicators showing current position			
	Low	Moderate	Good	Optimal
	Little or no cooperation among segments of green industry or awareness of district-wide treescape goals and objectives.	Some cooperation among green industry as well as general awareness and acceptance of district-wide goals and objectives.	Specific collaborative arrangements across segments of green industry in support of district-wide goals and objectives.	Shared vision and goals and extensive committed partnerships in place. Solid adherence to high professional standards.

3.2 Targets, Priorities and Actions

C5 Devon Tree & Woodland Strategy & Saving Devon's Treescapes

The Devon Local Nature Partnership has produced a Tree and Woodland Strategy for the county. Despite lower levels of woodland cover than the national average (11.8% compared to 13.2%), trees are a very prominent characteristic of the Devon landscape, with the county boasting the longest hedgerow network in the country. Devon is also rich in ancient woodland, ancient and veteran trees and opportunities for woodland expansion. Furthermore, it has an active woodland economy, accounting for the equivalent of 4,500 full time jobs and contributing £200million to the local economy; a long history as a centre of innovation and excellence within the forestry sector; and a large number of high profile tree and woodland themed projects. However, efforts are not always as well linked as they could be.

If the UK is to reach its carbon neutral target by 2050, the Committee on Climate Change (CCC) has recommended an increase in woodland cover from 13% to 19%. This equates to 50,000 hectares of new woodland in the UK every year until 2050. This is an unprecedented level of change and is not going to be achieved by piecemeal efforts or without overcoming some major barriers.

In response, the Department for Environment, Food & Rural Affairs (DEFRA) launched the England Trees Action Plan in May 2021. This sets out their long-term vision for trees, woodlands and forests. It provides a strategic framework for implementing the Nature for Climate Fund and outlines over 80 policy actions required to achieve these ambitions. It also stresses the need for ownership at a local level.

Due to the potential scale of tree loss, both within the Devon landscape and nationally, a number of regional projects have been established to plan and deliver mitigation measures on a large scale.

Within Devon, the Devon Ash Dieback Resilience Forum (DADRF) has been established from the Devon Tree Officers Group with a number of additional partners. The Forum has been successful in securing funding for the Saving Devon's Treescapes Project (SDT), to be led by the Devon Wildlife Trust.

The Project Steering Group represents the wider interests of DADRF and other key partners in the delivery of the project.

The project aims to encourage communities to get involved in planting trees outside of woodland areas, both in the countryside and in towns and cities, in order to replace trees expected to be lost due to Ash dieback.

By engaging with local communities, schools, and volunteer groups, three community nurseries and micro-nurseries will distribute free trees. Headline project proposals include:

- the establishment of at least 250,000 new trees in Devon, outside of woodland areas;
- 125 events and workshops, annual 'tree-week' festivals and 360 landowner visits will inspire community involvement and action; and
- creating or enhancing more than 150km of hedgerow.

Link to relevant corporate policies
Devon Tree and Woodland Strategy National Landscape Management Plan Exeter and East Devon GI Strategy

Actions	Responsibility	Review
1. Promote the planting of trees on private land 2. Encourage community involvement and volunteering opportunities 3. EDDC to work in collaboration with other local authorities and non-government organisations to ensure that there is partnership working in delivering the Saving Devon Treescapes project		

Priority	Key Performance Indicators showing current position			
	Low	Moderate	Good	Optimal
	Const. and Wards have no interaction with each other or the broader region. No regional planning or coordination on trees & woodlands.	Some neighbouring authorities and regional agencies share similar policies and plans related to trees & woodlands.	Some tree & woodland planning and cooperation across authorities and regional agencies.	Widespread regional cooperation resulting in development and implementation of regional tree & woodland strategy.

3.2 Summary - Community Framework

Key Performance Indicator	Current Performance Level & Future Goal				Priority
	Low	Moderate	Good	Optimal	
C1 – Governance and Inter-departmental Co-operation		Moderate			
C2 – Community Involvement, Neighbourhood Action & General Appreciation of Trees, Hedges and Woodlands		Moderate			
C3 – Utilities & Insurance Co-operation	Low				
C4 – The Green Industry and Agriculture Co-operation			Good		
C5 – Devon Tree & Woodland Strategy & Saving Devon's Treescapes			Good		

3.3

Sustainable Resource Management Approach

Targets, Priorities and Actions

This section deals with the practical management of the tree, hedge and woodland resource. For much of the trees, hedges & woodlands of East Devon, this can mean seeking to engage and influence other land owners.

3.3 Targets, Priorities and Actions

R1 Tree, Hedge and Woodland Inventory

A tree and woodland inventory is an exercise to take stock of the assets within the district as a whole. An understanding such as this is an essential starting point for establishing the structure of the trees, woodlands, and hedges, including the number of trees, diversity of species, age / size distribution, pests and diseases, ownership, condition, etc.

Using remote sensing sampling is a cost and time effective methodology for establishing a baseline for tree inventory across the district. An analysis of the inventory will enable evidence-based management, and a starting point from which to monitor future progress and to further manage the tree stock over time.

A web-map is an interactive tool for displaying information to the public about trees, woodlands and hedges, and data can be broken down by parish and ward. They can display a range of things including tree benefits such as canopy cover, annual ecosystem benefits (avoided runoff, carbon sequestration, air pollution removal), and tree condition, to name a few. They are an excellent way to engage with the public and communicate benefits of trees. In creating a public web-map, tree data could be easily communicated and compared.

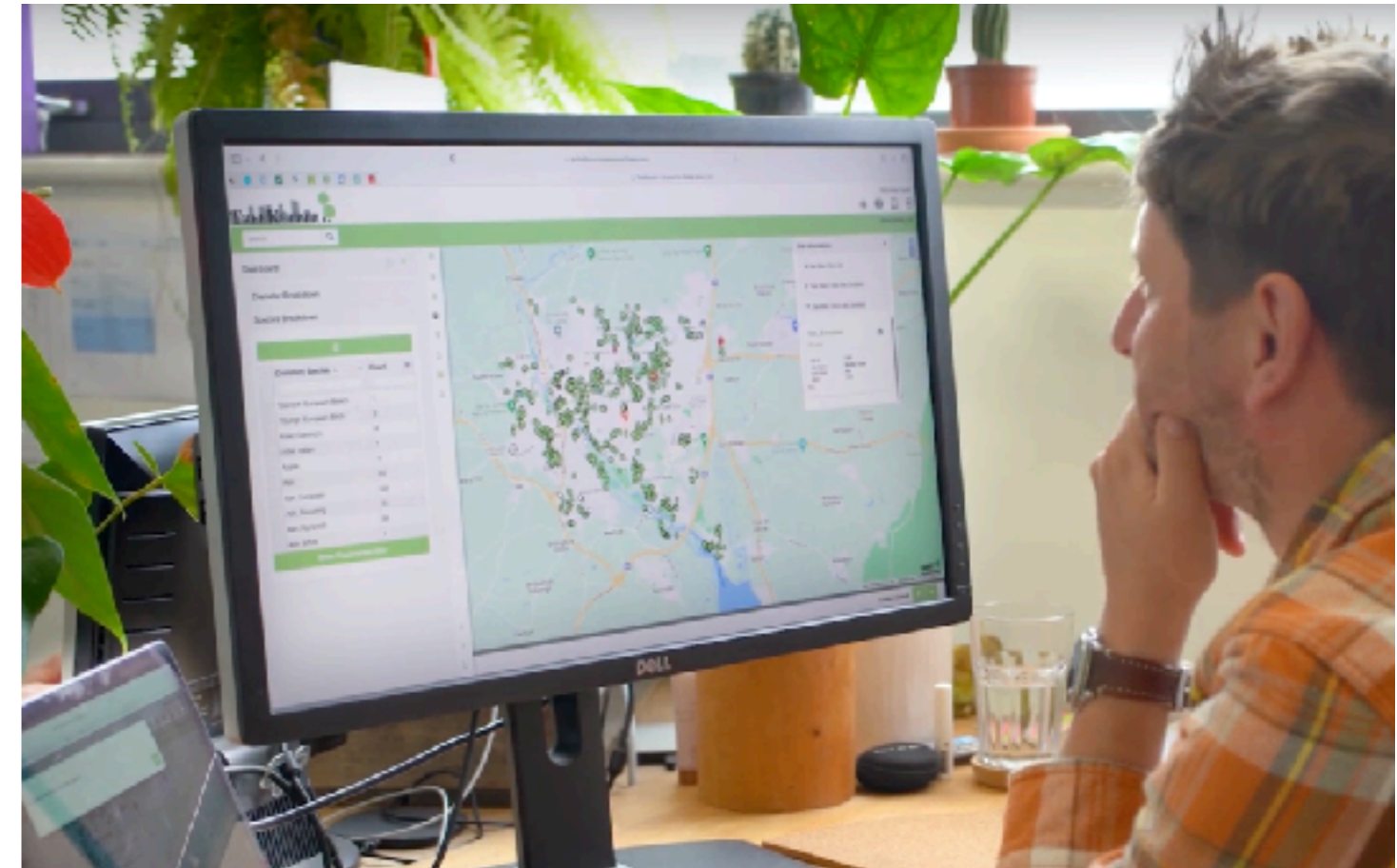


Figure xx. Treekeeper tree inventory management system developed by Davey Resource Group.

Link to relevant corporate policies
Devon Local Nature Recovery Strategy (LNRS) Local Plan

Actions	Responsibility	Review
<ol style="list-style-type: none"> 1. Create open-data web map for displaying tree benefits from inventory data 2. Supplement with Ancient Tree Registry & Habitat mapping 3. Include hedges in inventory 4. Separate urban and rural areas 		

Priority	Key Performance Indicators showing current position			
	Low	Moderate	Good	Optimal
	No inventory .	Complete or sample-based inventory of publicly owned trees. No open source mapping.	Complete inventory of publicly owned trees and sample-based privately owned trees that is guiding management decisions. Some data is mapped and openly accessible.	Systematic comprehensive inventory system of entire treescape – with information tailored to users and supported by mapping of trees, woodlands, and their benefits in district-wide GIS system which is openly accessible.

3.3 Targets, Priorities and Actions

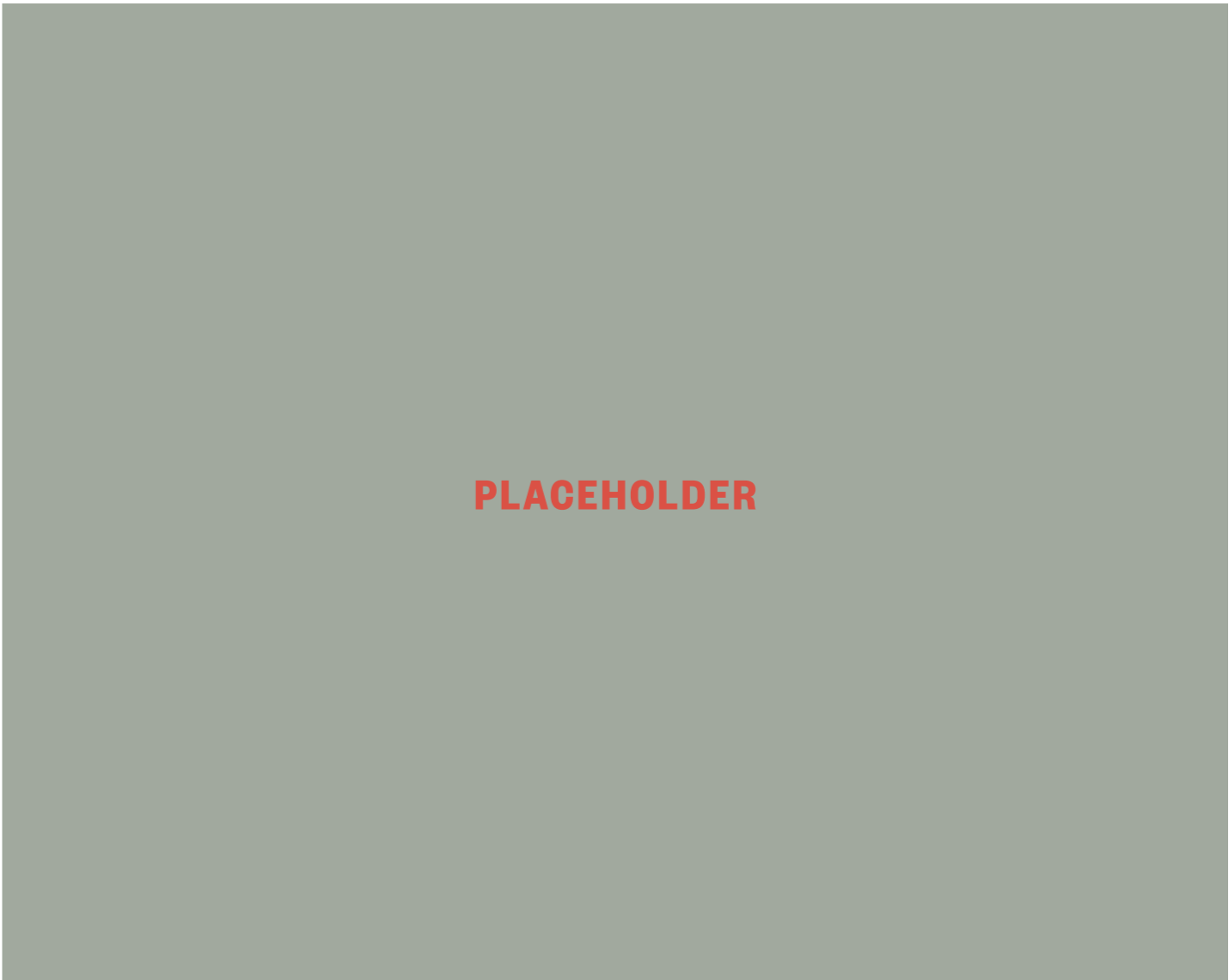
R2 Tree Valuation and Asset Management Approach

Tree valuation is an important part of managing and promoting trees, hedges, and woodlands. Capital Asset Valuation of Amenity Trees (CAVAT) was developed by the London Tree Officers Association (LTOA) and others in 2008. It is one of the principal methods of tree valuation in the UK and aims to provide a method for managing trees as assets rather than liabilities. It can be used for individual trees or for the tree stock as a whole.

Where trees have been deliberately damaged or felled CAVAT can be used to give a financial value to the trees to enable appropriate mitigation to be implemented. The value is based on a number of factors including the size of the tree, its location, its amenity, condition and life expectancy; generally the larger the tree, the more valuable it is. East Devon have successfully used CAVAT in relation to unauthorised works to council owned tree and in development schemes where tree protection conditions have not been correctly implemented. CAVAT is also a useful tool for valuing trees implicated in subsidence where large important trees can often be valued over £100,000.

By undertaking a valuation of the trees to society, this can enable a simple comparison to be made against perceived costs of trees. Valuation methods can also be made including ecosystem services, and Biodiversity Net Gain (BNG).

Capital Asset Valuation of Amenity Trees (CAVAT) was developed by the London Tree Officers Association (LTOA) and others in 2008. It is one of the principal methods of tree valuation in the UK, and aims to provide a method for managing trees as assets rather than liabilities. It can be used for individual trees or for the tree stock as a whole. Documents related to CAVAT including a user guide and the spreadsheet calculator can be viewed online. The CAVAT system is only really appropriate when applied to individual trees that are visible to the public. Furthermore, EDDC's hedges and woodlands are currently not subject to an asset valuation. These knowledge gaps will be addressed in the future.



Link to relevant corporate policies
Devon Local Nature Recovery Strategy (LNRS)

Actions	Responsibility	Review
<ol style="list-style-type: none"> Conduct CAVAT assessment of EDDC trees and include valuations in EDDC tree inventory data Promote the use of My-tree/ I-tree for individual trees 		

Priority	Key Performance Indicators showing current position			
	Low	Moderate	Good	Optimal
High	Tree valuation nor assessment management are in place.	Some form of tree valuation is used, at least for key projects involving public trees.	Tree valuation and asset management are implemented across the district, for most public trees.	Tree valuation and asset management are implemented for all public trees - and in some cases also private trees.

3.3 Targets, Priorities and Actions

R3 Tree Canopy Cover Assessment and Goals

Assessing Tree canopy cover is vital, as this metric is used frequently as a figure which is clear and easy to compare with other areas. Whilst tree canopy cover is not a thorough study of the health and diversity and therefore overall benefit of trees, hedges and woodlands, it is an important aspect which should not be overlooked for its simplicity.

This target involves assessing the existing canopy cover - the area of leaves, branches and stems of trees covering the ground, across a given area, when viewed from above - in detail, and setting goals based on reasonable potential canopy cover - the percentage of land area that could theoretically be covered by tree canopies if all suitable available space (e.g. open areas, or spaces where trees could be planted) were utilised for tree planting - and achievable steps to maximising cover. This relates to T1 - 'Tree Canopy Cover'- and would provide the necessary baseline for achieving that target. It is important that any tree canopy cover target is achievable within a reasonable time frame, and considered within the wider context of this strategy.

It should also be noted that tree planting will not provide an instant increase to tree canopy cover; trees are constantly being felled for any number of reasons, so insufficient planting can contribute to making up the deficit without actually increasing canopy cover.

Town/City	London	Plymouth	Babergh	Mid Suffolk	Torbay	Sidmouth
Existing Canopy Cover	21% (2015)	18.5% (2017)	10.4% (2022)	8.5% (2022)	18.2% (2021))	23.2% (2015)
Target	30%	20%	15%	15%	20%	25%

Table 3: Other Canopy Cover Estimates and Goals

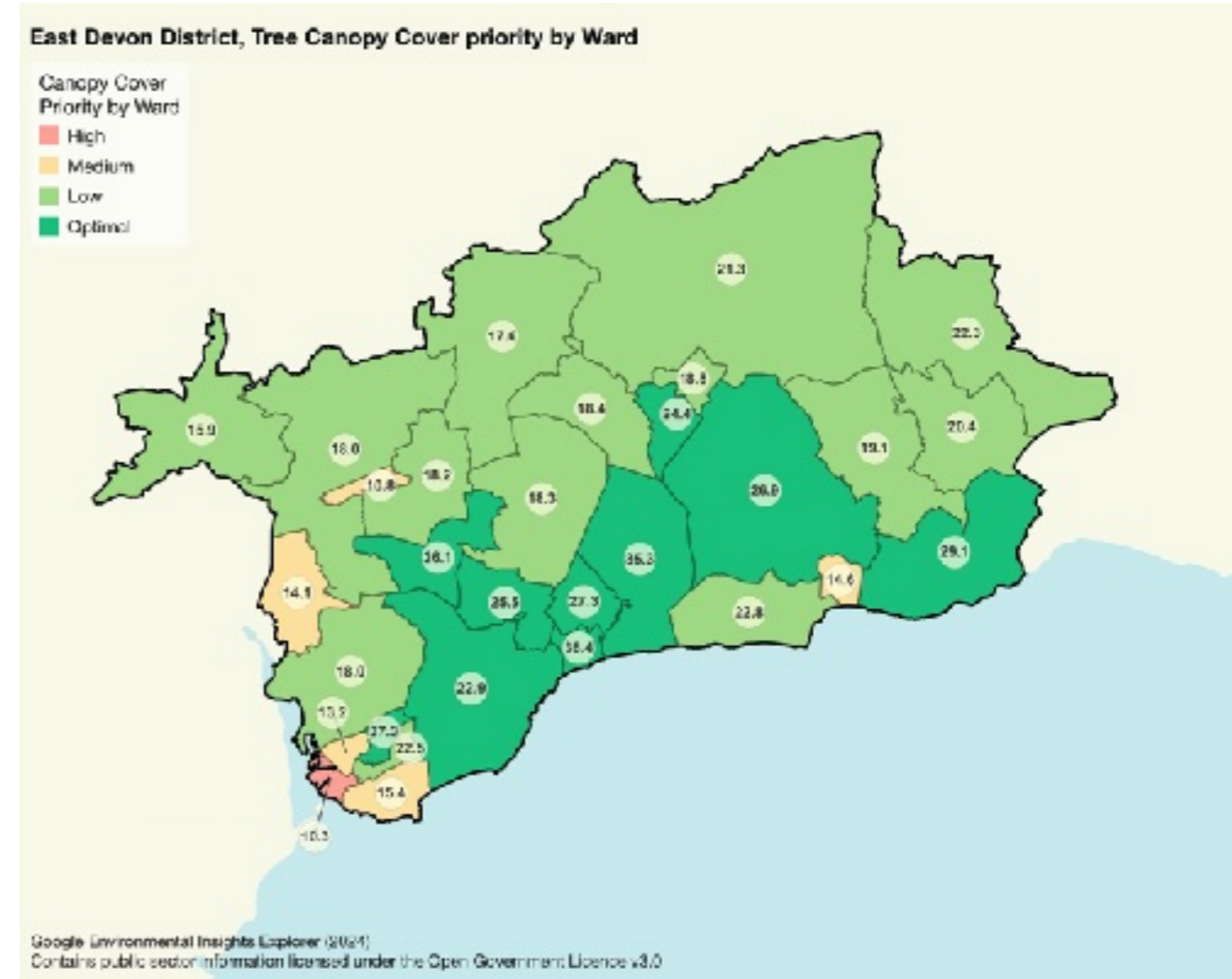


Figure xx. of EDDC wards with existing canopy cover ranked against target canopy.

Link to relevant corporate policies	Actions	Responsibility	Review
The 25 Year Environmental Plan	<ol style="list-style-type: none"> 1. Include 3-30-300 rule as a target for new developments 2. Include 3-30-300 as a guiding principle in the development of the new town & include in SPDs 3. Target of 30% TCC across district 4. Complete a Tree Canopy Cover 		

Priority	Key Performance Indicators showing current position			
	Low	Moderate	Good	Optimal
	No assessment or goals.	Low-resolution and/or point-based sampling of canopy cover using aerial photographs or satellite imagery – and limited or no goal-setting.	Complete, detailed, and spatially explicit, high-resolution Tree Canopy Cover (TCC) assessment based on enhanced data (such as LiDAR, Satellite or NTM) – accompanied by comprehensive set of goals by land use and other parameters.	As described for “Good” rating – and all utilised effectively to drive tree, hedge & woodland policy and practice district-wide and at neighbourhood or smaller management level.

3.3 Targets, Priorities and Actions

R4 Tree Equity

Tree equity is the idea that all communities have equitable access to the benefits of trees where they live. As shown in T1 canopy cover varies widely across urban areas of the district. EDDC aims to progress equality in all spheres of social and economic life and empower and engage local communities to effect positive change.

Urban forests are connected to a range of socio-economic factors, with studies linking canopy cover to health, wealth, education, and crime. Typically, lower-income areas have fewer trees, and this inequality should be addressed across East Devon. Lack of tree canopy cover can also be linked to the level of urban intensification and the lack of physical space to plant trees (e.g., low-cost housing with small gardens is not always suitable for trees). Therefore, utilising other aspects of the urban forest, such as green roofs, may be part of the solution. The benefits of trees and green space should be made available to all people in all areas of the district which was reflected in the public consultation, which found 74% respondents felt there are too few trees in the district. EDDC recognises that trees and green space should be a right for all, and environmental exclusion must be avoided.

In East Devon, a tree equity map produced by the Woodland Trust currently only covers Honiton, Exmouth and Sidmouth. Canopy cover should be assessed alongside other data sets, such as air quality and indices of multiple deprivation, to ensure that areas not covered by the map are not overlooked. This target aims to ensure that the planting and management of the urban forest focus on areas where it will most benefit local people, particularly in regions with the lowest canopy cover. Tree management plans in these low-canopy areas should include community engagement and neighbourhood outreach to maximise the benefits of trees in the area. The multi-faceted meanings of trees to different people should be recognised.

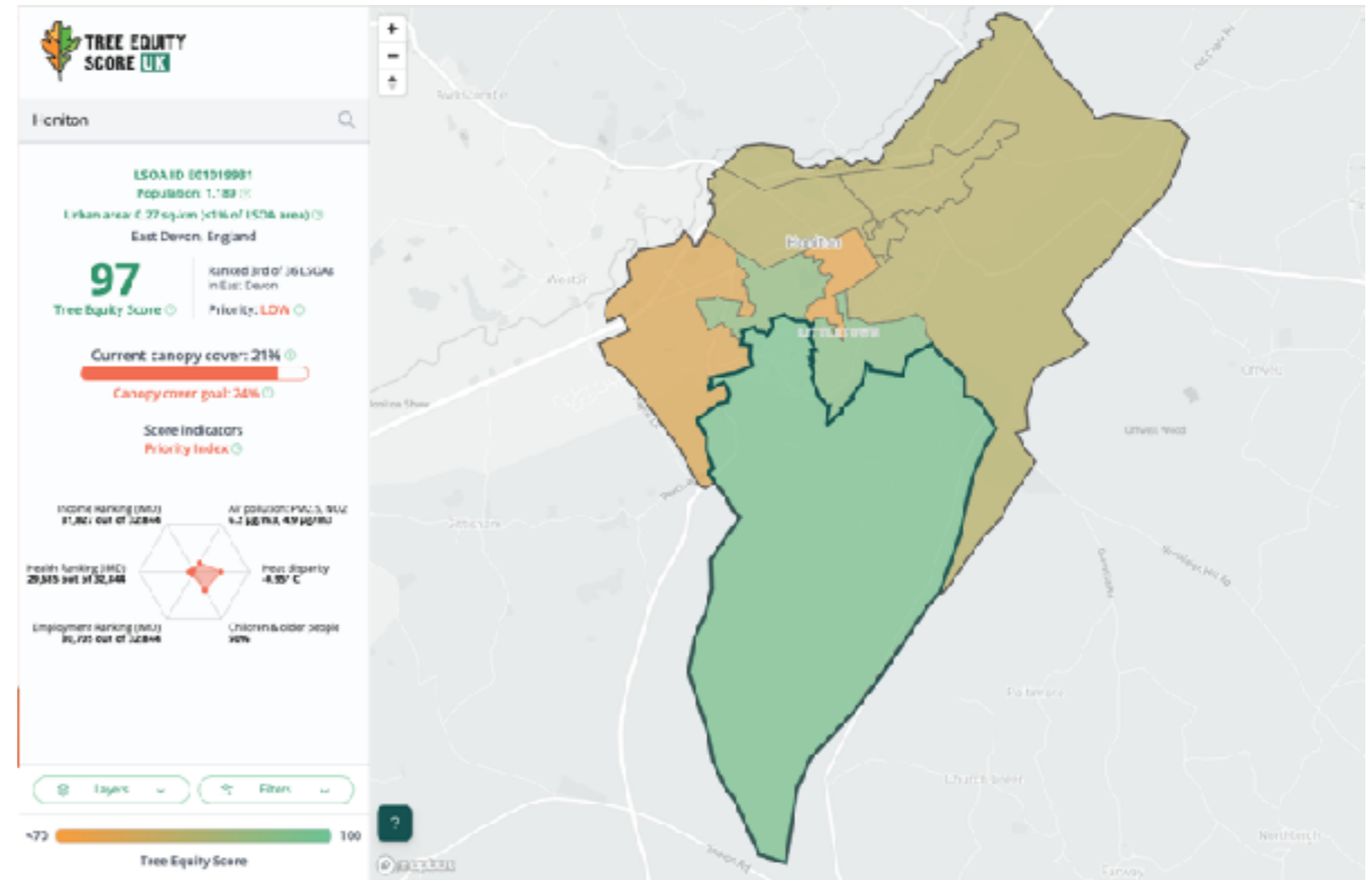


Figure xx: Tree Equity Score Map for Honiton, East Devon. <https://uk.treeequityscore.org/>

Link to relevant corporate policies
Devon Green Infrastructure Strategy Natural Flood Management Guidance Open Spaces Strategy

Actions	Responsibility	Review
1. Use EDDC tree canopy cover study coupled with Woodland Trust Tree Equity Map to focus efforts around tree planting and community engagement in the areas that most need it 2. Identify opportunities for the greening of social housing estates		

Priority	Key Performance Indicators showing current position			
	Low	Moderate	Good	Optimal
	Tree planting and outreach is not determined equitably by canopy cover or need for benefits.	Planting and outreach includes attention to low canopy neighborhoods or areas.	Planting and outreach targets neighbourhoods with low canopy and a high need for tree benefits.	Equitable planting and outreach at the neighbourhood level is guided by strong citizen engagement in those low-canopy/high-need areas.

3.3 Targets, Priorities and Actions

R5 Trees, Hedges & Woodland in Development

Considering the requirements for existing and new trees and hedges early in the design and planning stages for new development will help to ensure their successful retention/ establishment. This includes providing adequate protection and space for them to thrive and avoiding conflicts with underground and overhead services. Some losses of existing poor quality and non-native trees and hedges may be acceptable, but standing dead wood should be retained where possible for wildlife benefit.

Current EDDC planning policies require the appropriate retention and enhancement of existing trees and hedges on development sites and provision of new planting. Existing policies could be strengthened to ensure adequate compensatory planting for any losses of trees and hedges and provision of additional tree and hedge planting to meet potential tree canopy targets.

The preparation of a Trees and Hedges Supplementary Policy Document (SPD) could provide more detail on requirements for tree and hedge retention, together with planting and maintaining new trees and hedges, than can be covered in Local Plan policies and, if adopted, would be a material consideration in determining planning applications. Key aspects that could be considered for inclusion in an SPD would be soil protection, handling and preparation; species selection; tree pit design; soil volume requirements for trees in areas of hard paving; co-ordination of services to avoid conflict with tree planting; and management and maintenance requirements.

Recent surveys by EDDC show a high failure rate of newly planted trees in some large, recent developments in East Devon. This highlights the need for rigorous oversight of tree planting schemes and subsequent monitoring to ensure the success and longevity of these green assets. Providing guidance for developers and contractors as well as training and support for enforcement officers to raise awareness of the issues affecting tree retention and new planting could help to significantly improve retention and establishment rates, taking enforcement action where necessary to ensure failures are replaced and that protection and maintenance works are appropriate and effective.

Links to R6 Enforcement

Link to relevant corporate policies
The East Devon Local Plan NPPF BS5837 Street Tree Establishment Guide

Actions	Responsibility	Review
<ol style="list-style-type: none"> 1. Assess potential plantable space and model canopy growth and planting scenarios to determine suitable timeframe for 30% tree cover in new developments 2. Engage with the Devon Tree Strategy group to strengthen policy around tree retention & establishment in developments 3. Develop and adopt a Supplementary Planning Document regarding trees, hedges & woodland 		

Priority	Key Performance Indicators showing current position			
	Low	Moderate	Good	Optimal
High	Tree planting in new developments will achieve less than 10% potential tree canopy cover. 30% success of new tree establishment after 5 years.	Tree planting in new developments will achieve less than 20% potential canopy cover. 50% success of new tree establishment after 5 years.	Tree planting in new developments will achieve potential 25% canopy cover. 70% success of new tree establishment after 5 years.	Extensive tree planting and maintenance in new developments. New developments achieve the 3-30-300 rule. 90% success of new tree establishment after 5 years.

3.3 Targets, Priorities and Actions

R6 Tree and Hedge Protection and Enforcement

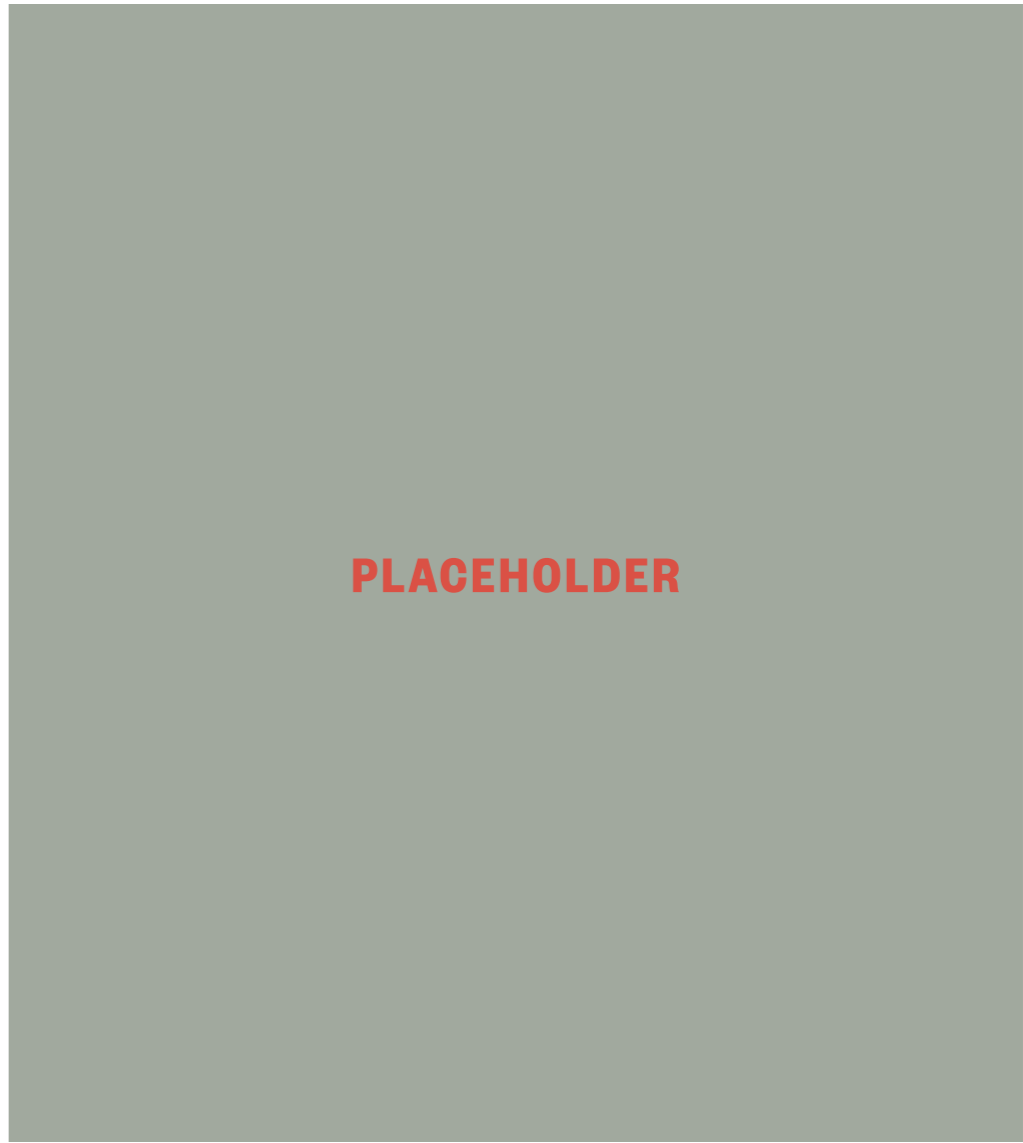
Urban trees are sometimes viewed as irritating and costly, dropping leaves on lawns, blocking drains, and damaging foundations and pipes with their roots. They may also be considered hazardous, especially if they are not properly managed. For these reasons, individuals may wish to remove trees from public land or private properties.

However, healthy trees can and should be protected. EDDC will seek to protect trees where appropriate. TEMPO (Tree Evaluation Method for Preservation Orders) is one methodology for assessing the suitability for trees to be protected. Conservation areas (CAs) and Tree Preservation Orders (TPOs) are just two examples of the council's duty to safeguard trees and hedges. Additionally, trees and hedges may be protected as part of planning conditions associated with planning approvals. Any unauthorised works to trees or hedges protected by a TPO, CA, or planning condition are addressed by planning enforcement officers when deemed necessary. Planning enforcement officers should also collaborate with tree officers, who can offer detailed guidance and support on tree and hedge protection in development.

To carry out works on a tree protected by a TPO, consent from the council is required through the submission of a tree works application. For trees in a conservation area, a six-week notice of intention must be submitted to the council, which may either accept the notice or serve a TPO. 'Important' hedgerows in the countryside are protected and one must apply to the Council under the Hedgerow Regulations 1997 via a Hedgerow Removal Notice to gain permission to remove.

All TPOs are available to view online by visiting: [https:// eastdevon.gov.uk/trees/](https://eastdevon.gov.uk/trees/)

The vast majority of trees and building are able to coexist without any structural issues from occurring at all. However, in a small number of cases where there is clay soil, subsidence can be an issue particularly where buildings have been constructed with inappropriate foundations or poorly constructed extensions. The insurance industry will often state that tree removal is the only method to alleviate subsidence and tends to ignore the detrimental impact that tree removal has on the amenity of the local area, the environment, biodiversity, and contribution trees make to ameliorating the negative impact of climate change particularly in urban areas. Conveniently for the insurance industry, tree removal also happens to be the cheapest solution to apparently reducing the risk of further damage. Increasingly, tree removal is also being stated as the 'greenest option' in comparison to traditional underpinning with concrete. It is important to note that tree removal on its own also does not guarantee that the issue of subsidence has been permanently resolved. Where trees protected by a TPO are implicated in subsidence, the council will follow the guidelines as set out within the LTOA Strategy.



Link to relevant corporate policies
National Landscape Management Plan Local Plan BS5837

Actions	Responsibility	Review
<ol style="list-style-type: none"> 1. Work to ensure enforcement is pursued in the event of contraventions 2. Protect where appropriate existing trees & consented landscape schemes to ensure appropriate tree retention and long-term management 3. Provide tailored training for enforcement team on trees, hedges & woodlands 		

Priority	Key Performance Indicators showing current position			
	Low	Moderate	Good	Optimal
	No tree protection policy.	Policies in place to protect public trees and employ industry best management practices, but inconsistently enforced.	Policies and practices in place to protect public and private trees, generally enforced.	Integrated district-wide policies and practices to protect public and private trees, consistently enforced and supported by significant deterrents.

3.3 Targets, Priorities and Actions

R7 Tree, Hedge & Woodland Funding

Securing sufficient funding on an annual basis is vital to not only secure and grow local government funding, but also to expand and diversify finances for tree, hedge and woodland funding.

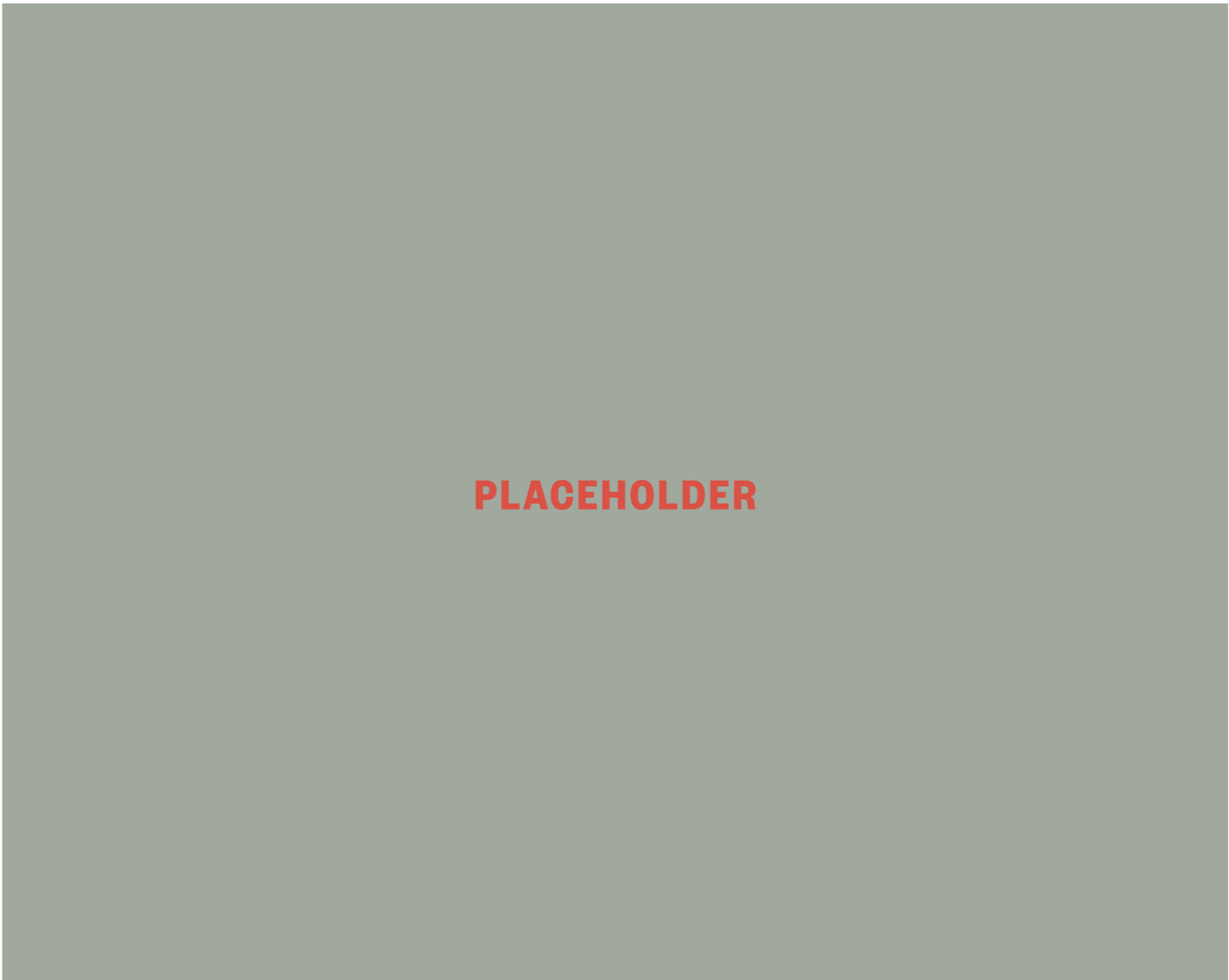
There are several government schemes for funding tree planting of different types, from woodland establishment to urban forestry.

Whilst funding for tree planting is readily available, funding for management and monitoring of trees and woodland needs further investigation.

Private-sector funding as well as funding from one-off projects offer additional opportunities. Moreover, as a large share of East Devon’s trees, hedges and woodlands are owned by private residents and organisations their involvement and support is also essential.

Three broad routes exist:

1. External funds from central government directed at different parties e.g.
 1. Urban Tree Challenge Fund (UTCF) for street trees
 2. Local Authority Treescapes Fund (LATF) for other trees and replacement street trees
 3. ELMS
2. External funds from major NGOs such as the Woodland Trust’s Emergency Tree Fund and More Woods scheme, and the Forestry Commission England Woodland Creation Offer
3. Levies and agreements within the planning system. Best practice directs funds within developments to make good / surpass any tree loss on a fully funded basis using a more appropriate metric than tree numbers which do not reflect the impact of ecosystem services of the loss of large trees.



Link to relevant corporate policies
The 25 Year Environmental Plan

Actions	Responsibility	Review
1. Scope and implement Section 106 funding for impact mitigation 2. Carry out Tree Planting Opportunity Mapping to assist in funding bids 3. Create a dedicated officer role for bid/funding applications	EDDC	

Priority	Key Performance Indicators showing current position			
	Low	Moderate	Good	Optimal
	Little or no dedicated funding.	Funding only for emergency, reactive management.	Funding sufficient for some proactive management based on tree & woodland management plan.	Sustained funding from public and private sources to fully implement the strategy .

3.3 Targets, Priorities and Actions

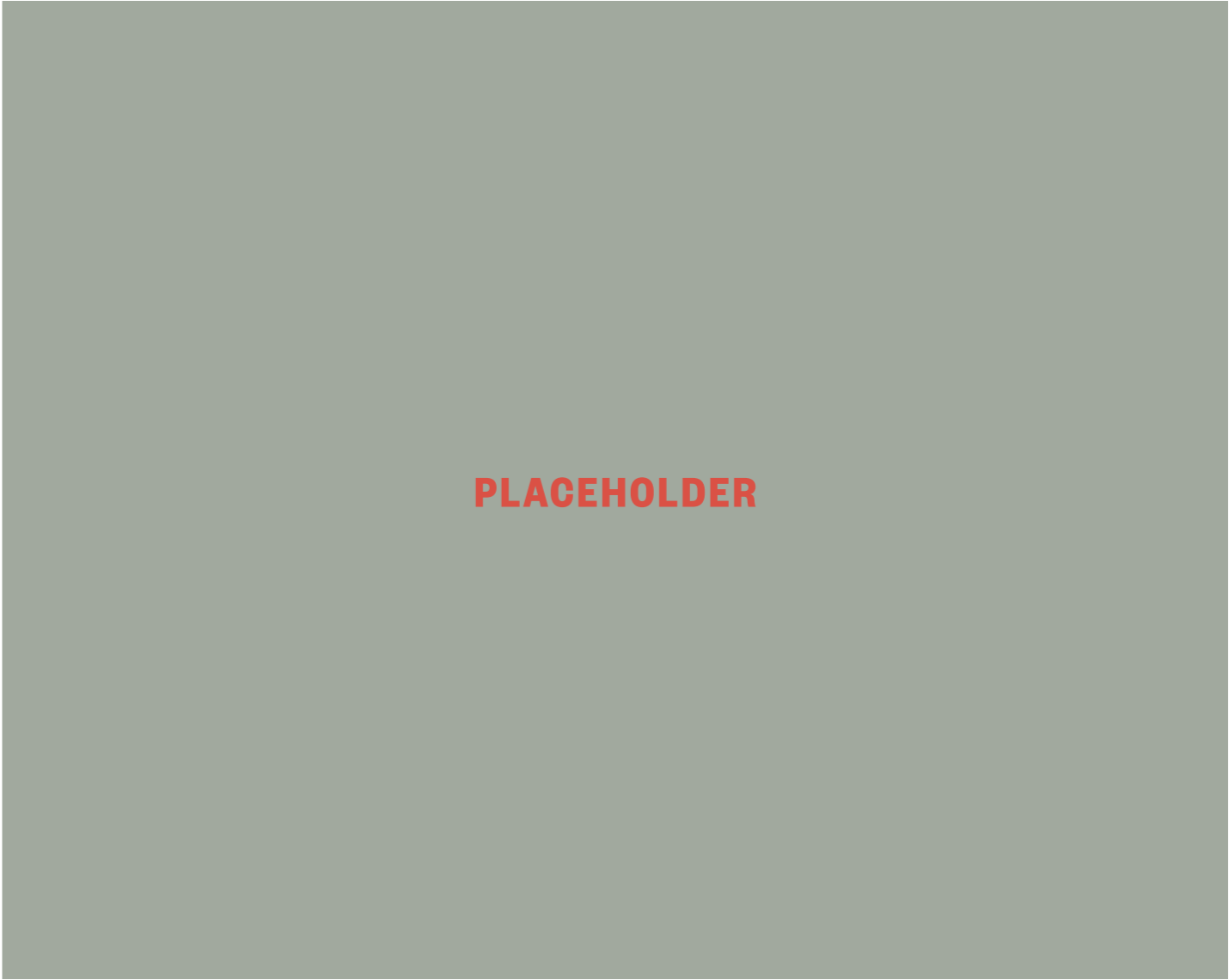
R8 Capacity and Staffing

Adequate staffing means there are enough staff with the correct training and experience to carry out all necessary tasks relating to the implementation and day-to-day running of the tree and woodland programme. This may mean hiring new staff, arranging further training for current staff or bringing in extra capacity from partners to help deliver. For example Devon Forest Partnership has been set up specifically to help deliver Districts' tree strategies.

This includes anyone involved in the delivery of tree management and implementation, e.g., Tree Wardens, Countryside Volunteers, Tree Officers, Countryside & Streetscene staff, etc. One of the key limiters of this target is money, therefore fully costing the Tree, Hedge and Woodland Strategy and establishing a dedicated and coordinated budget is the first step.

A fully costed budget to deliver this plan can be used to help obtain the necessary funding to deliver the plan. This funding would then allow for the important longer term work.

It would also help for EDDC to encourage DCC to promote future employment training for school leavers across the county. Bicton College should be a feeder school to EDDC's THAWS implementation and management teams. If and when there is capacity within the team, it would be valuable to have a work experience programme to encourage the next generation from the local area to be highly skilled in land based industries (Grow your own).



Link to relevant corporate policies
The 25 Year Environmental Plan Clean Air Strategy

Actions	Responsibility	Review
1. Secure funding for roles necessary to take target to good 2. Work with organisations such as WT, FC, NE & other partners to provide advice and assistance		

Priority	Key Performance Indicators showing current position			
	Low	Moderate	Good	Optimal
	Team severely limited by lack of personnel and/or access to adequate equipment. Unable to perform adequate maintenance, let alone implement new goals.	Team limited by lack of trained staff and/or access to adequate equipment.	Team able to implement many of the goals and objectives of this THAWS management plan.	Team able to implement all of the goals and objectives of the THAWS management plan.

3.3 Targets, Priorities and Actions

R9 Tree Establishment - Site Suitability, Planning, Implementation

New tree, hedge and woodland planting should be undertaken in accordance with the four-point mantra: Right Reason - Right Place - Right Tree - Right Way as described below. This approach gives the best chance of establishment, a good landscape fit and reduces the likelihood of removal later. Where appropriate, the use of natural regeneration for scrub and woodland creation should be considered in preference to new planting but to be successful will require an adequate seed bank to be present over the site and protection from browsing.

- **Right reason** Tree, hedge and woodland planting or creation should be undertaken to achieve a clear purpose and focus not just on quantity, but also quality.
- **Right place** Choosing the right location for new trees hedges and woodland is very important and in rural areas should be guided by published landscape character assessments. In some important habitats tree and hedge planting may be inappropriate and other sites may have archaeological constraints, be part of an historic designed landscape or provide important views which should be respected. In urban areas existing services and buildings may limit choices. Potential constraints should be understood early before deciding to plant.
- **Right tree** The benefits and drawbacks of different species must be considered in relation to factors including local landscape character, site suitability, climate tolerance, size, rooting characteristics, aesthetics (canopy, leaves, flowers, etc.), ecosystem service provision and biodiversity.
- **Right way** How the tree should be planted may vary depending on where the tree is, but all trees need the same essentials; good soil quality and volume for root establishment; water, particularly for young trees and trees in urban areas which may struggle; air and support to keep it upright whilst its roots establish; protection from damage, and maintenance. In urban areas, hard paved impermeable surfaces present challenges which trees are not adapted to deal with, such as soil compaction, limited nutrient recycling and reduced water infiltration.

Adherence to BS 8545 (Trees: from nursery to independence in the landscape) and BS 5837 (Trees in relation to design, demolition and construction) must be a priority in planning and development, rather than an afterthought.



Figure 7: Trees and Design Action Group species selection criteria guide

Sources and references:
 Trees and Design Action Group. (2018). Tree Species Selection For Green infrastructure : A Guide for Specifiers: <https://www.tdag.org.uk/tree-species-selection-for-green-infrastructure.html>
 East Devon Landscape Character Assessment 2019
 DCC Landscape Character Assessment and DCC Right Tree Right Place guidance

Link to relevant corporate policies	Actions	Responsibility	Review
Street Tree Establishment Guide Devon GI Strategy Exeter and East Devon GI Strategy Devon Right Tree Right Place Guidance	<ol style="list-style-type: none"> 1. Complete a comprehensive prioritised plan and opportunity map for tree hedge and woodland planting/ creation in urban areas and on EDDC managed land, identifying opportunities for active travel and wildlife corridors 2. Develop SMART targets for implementing the planting plan including private landowner planting initiatives 		

Priority	Key Performance Indicators showing current position			
	Low	Moderate	Good	Optimal
Medium	Little or no tree planting; tree establishment is ad hoc. Trees are selected and planted without consideration of site conditions.	Some tree planting and establishment occurs, but with limited overall district-wide planning and post-planting care. Appropriate tree species are considered in site selection.	Tree planting plan is guided by district-wide goals, with some post-planting establishment care. Guidelines in place for the improvement of planting site conditions and selection of suitable species.	Comprehensive tree establishment plan is based in evidence, and maintains species and age diversity, includes both planting and young tree care. Trees planted in sites with adequate soil quality and quantity, and with sufficient growing space and overall site conditions

3.3 Targets, Priorities and Actions

R10 Maintenance of Publicly Owned Trees

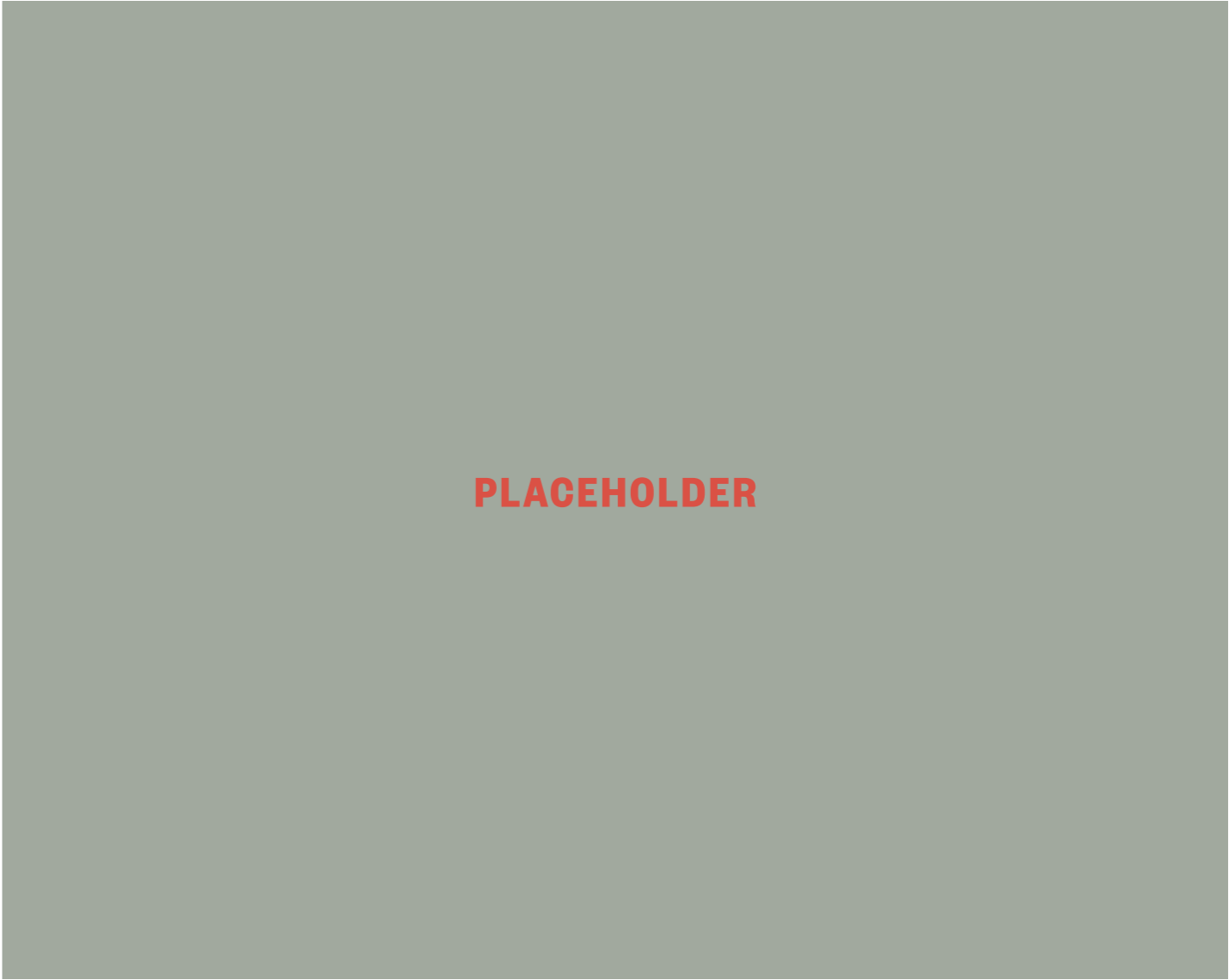
Intensively managed trees include street trees and trees in high target areas such as parks and open spaces, which require more care and attention due to the additional stresses and challenges of life in proximity to humans, particularly in hard landscapes, along transport routes, and in areas of high foot traffic resulting in soil compaction. In order to ensure the safety of public trees, cyclical inspections and appropriate maintenance is often required.

East Devon uses Ezytreev to proactively manage its tree stock; however ensuring that it is fully comprehensive, including recording maintenance schedules and works undertaken is the first step in ensuring that all trees are appropriately maintained.

Occupancy levels and target value are key drivers for inspection frequency, therefore an understanding of public land is essential in developing the inspection frequency, which should in turn help prioritise monitoring and management.

Proactively managing trees helps reduce the level of risk to acceptable levels which in turn helps reduce the likelihood of failure, reduce the level of perceived nuisance, reduces trip hazards, the spread of tree diseases and poor management such as leaving tree guards and stakes in situ too long which can cause harm to trees. Proactive management is also essential in ensuring successful tree establishment in planting schemes.

Extensively managed trees are trees in parks, woodlands and other natural areas which are often allowed to grow more naturally and freely than intensively managed trees. These areas still require management to provide a healthy and diverse green space. They are often used by the public and therefore risk management is a key consideration. The frequency of land use and target value are key drivers for inspection frequency, and any inspection rota should accommodate this to prioritise monitoring and management. This is expanded on in T6 and T8.



Link to relevant corporate policies
National Planning Policy Framework

Actions	Responsibility	Review
1. Ensure EDDC tree stock is proactively managed and recommended works are undertaken as necessary via Ezytreev		

Priority	Key Performance Indicators showing current position			
	Low	Moderate	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.	All publicly owned, intensively managed trees are routinely and thoroughly maintained on ongoing basis according to a comprehensive management plan.

3.3 Targets, Priorities and Actions

R11 Tree Risk Management of Council Owned Trees

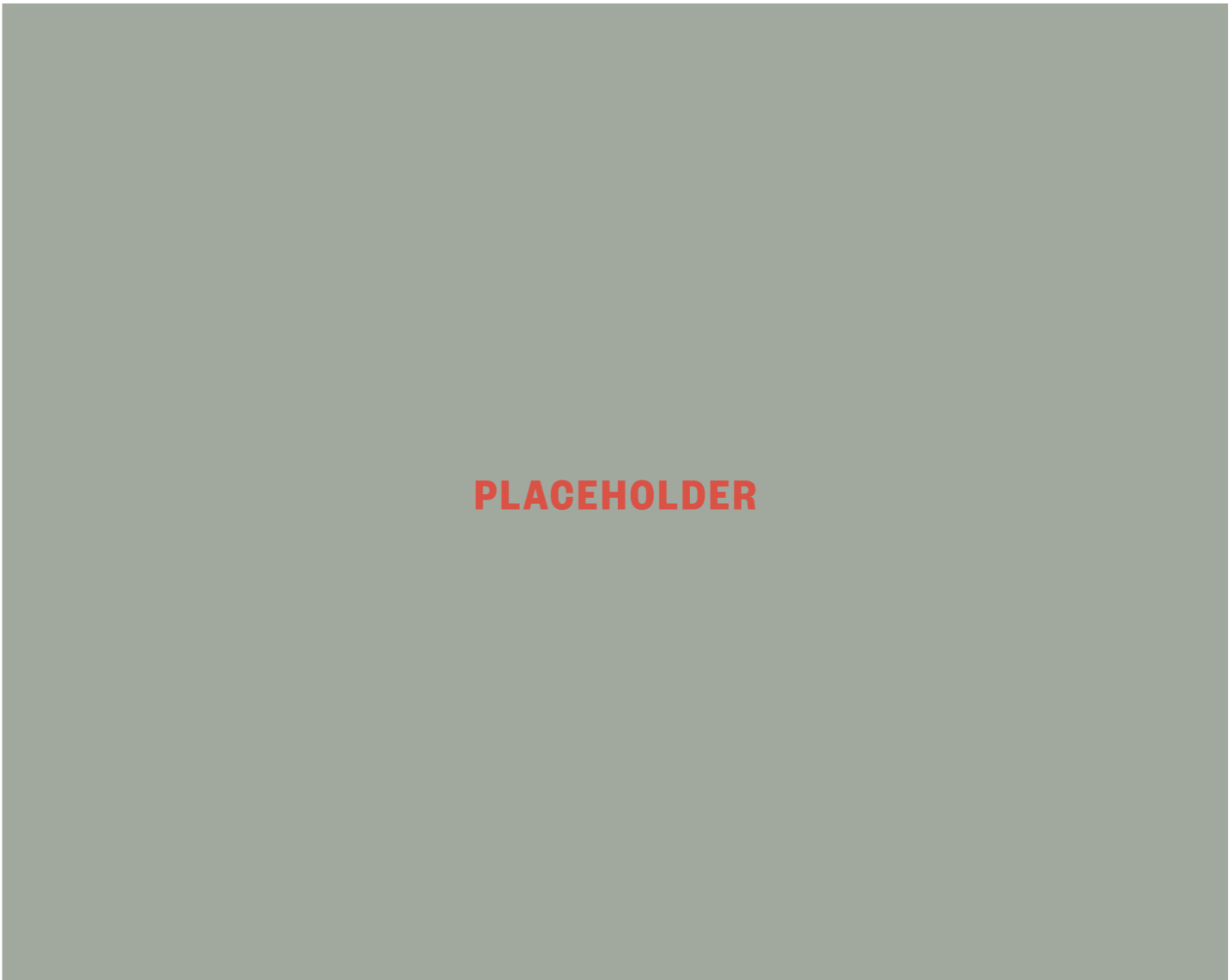
Existing tree management policy covering EDDC-owned trees is outlined in Appendix XX of the Strategy. Its principal components of tree and woodland maintenance, tree protection policy and risk management, are reflected here to ensure that higher-level issues are captured.

Existing practices for risk management and associated tree maintenance are considered to serve East Devon well and align with the district's scale in terms of both population and available budgets. These practices are informed by the principles of the National Tree Safety Group's (NTSG) Common Sense Risk Management of Trees, ensuring a balanced approach to managing tree risks proportionately while recognising the many benefits trees provide. EDDC's risk management policy emphasises the importance of assessing and mitigating risks effectively without unduly compromising tree retention or the wider benefits of its urban and rural treescape.

In certain cases, however, trees may need to be removed not only due to the physical risks they pose, such as falling limbs, but also because of damage they may cause to buildings through tree-related subsidence. Addressing such issues requires careful investigation and collaboration with insurers to balance the need for public safety and property protection with the retention of tree cover wherever possible.

The management of street trees in East Devon is the responsibility of either East Devon District Council, Devon County Council or Local Parish Councils, each of which has its own policies in place. Collaboration between the various authorities is essential to ensure consistency in tree management and risk mitigation across the district.

Sources and references:
National Tree Safety Group. (2011). Common sense risk management of trees. Forestry Commission



Link to relevant corporate policies
FAO Guidelines on Urban and Peri-urban Forestry EDDC Tree Management Guidance

Actions	Responsibility	Review
1. Review EDDC tree risk assessment and management guidance		

Priority	Key Performance Indicators showing current position			
	Low	Moderate	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).

3.3 Targets, Priorities and Actions

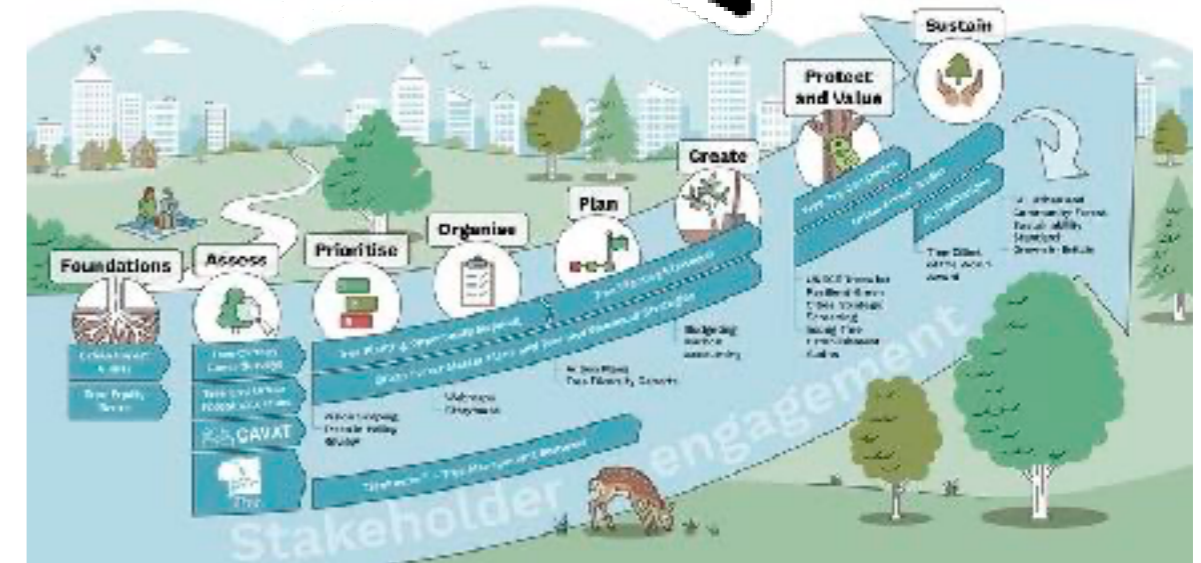
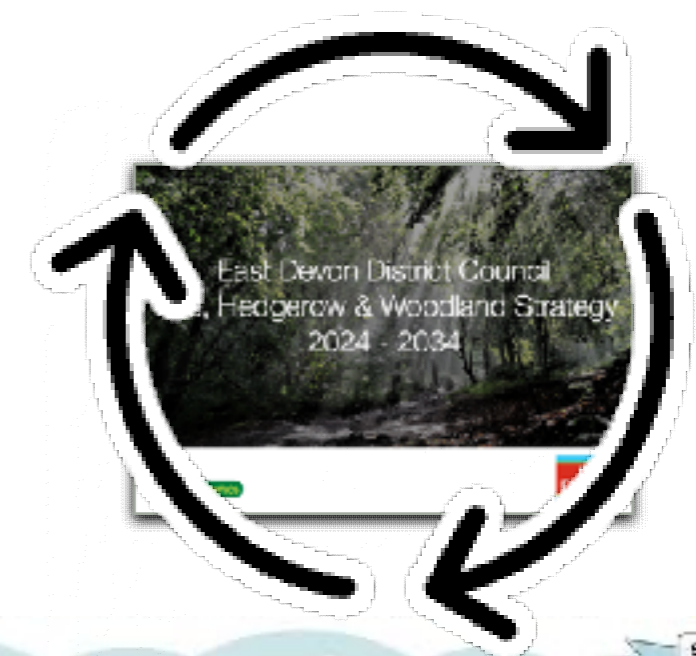
R12 Reviewing & Improving the Strategy

EDDC is taking a strategic approach to its trees, hedges and woodlands. It follows an action based model more widely used in countries like the US and Canada. The Plan will help EDDC set and work towards a vision for its trees that is sustainable well into the future.

The Tree, Hedge and Woodland Strategy outlines a vision for the development of the urban and rural tree resource. It provides a long-term framework in which strategic plans can be developed. Tree-planting programmes are just one element of tree and woodland management, and long-term management plans are just as important. With a tree and woodland management plan in place, tree planting programmes can be focused and strategised, as well as better guiding the achievement of a long-term vision.

With agreement on an ambitious vision, the Tree, Hedge and Woodland Strategy can be divided into management periods, with goals and targets clearly outlined. A series of performance indicators are then be put into place to monitor performance and help progress towards the achievement of goals and the wider vision. It is important that progress is monitored and reviewed on a regular basis, and actions modified as necessary. This way, EDDC can focus on the most relevant and urgent areas going forward.

The Tree, Hedge and Woodland Strategy is an ongoing piece of work and this document represents the first step and will be subject to ongoing improvement and updating. For each and every target within the plan further detail will be added, projects will be planned and actioned to take EDDC towards its vision.



Link to relevant corporate policies
All relevant EDDC plans, policies, and strategies

Actions	Responsibility	Review
1. The Strategy and Action Plan will be reviewed and updated annually to ensure that it remains relevant to East Devon and is compliant with current legislation, guidance and industry best practice		

Priority	Key Performance Indicators showing current position			
	Low	Moderate	Good	Optimal
	No plan.	Existing plan limited in scope and implementation.	Recent comprehensive plan developed and implemented for publicly owned forest resources, including trees managed intensively (or individually) and those managed extensively, as a population (e.g., trees in natural areas).	Strategic, multi-tiered plan with built-in adaptive management mechanisms developed and implemented for public and private forest resources.

4.3 Summary - Sustainable Resource Management Approach

Key Performance Indicator	Current Performance Level & Future Goal				Priority
	Low	Moderate	Good	Optimal	
R1 – Tree, Hedge & Woodland Inventory		Moderate			
R2 – Tree valuation and asset management approach		Moderate			High
R3 – Tree Canopy cover assessment and goals		Moderate			
R4 – Tree Equity (links to C6)		Moderate			
R5 – Trees, Hedges & Woodlands in Development					High
R6 – Tree protection policy development and enforcement		Moderate			
R7 – Tree Hedge & Woodland Funding	Low				
R8 – Capacity and Staffing	Low				
R9 – Tree Establishment - Site Suitability Planning and Implementation		Moderate			Medium
R10 – Maintenance of publicly owned trees		Moderate			
R11 – Tree risk management of Council Owned Trees			Good		
R12 – Reviewing & improving the Strategy			Good		

4.

Consultation Feedback

This section presents the outcomes of the public consultation regarding the creation of this document and the key themes, targets and actions.

Introduction

As an integral part of this strategy, public consultation was sought, in order to gather opinions from a wide section of the community on how trees in EDDC are perceived and managed. The process was undertaken via an online public survey to gather opinions before any of the strategy was written, helping to inform its scope and direction.

The public opinion survey, consisted of around 20 questions with quick, selectable answers and additional space for free text on each. Feedback was overwhelming, which saw one of the greatest responses East Devon had seen in recent times, with almost 500 respondents taking part.

A key result of the feedback highlighted the main themes that members of the public want the Council to focus on. These are:

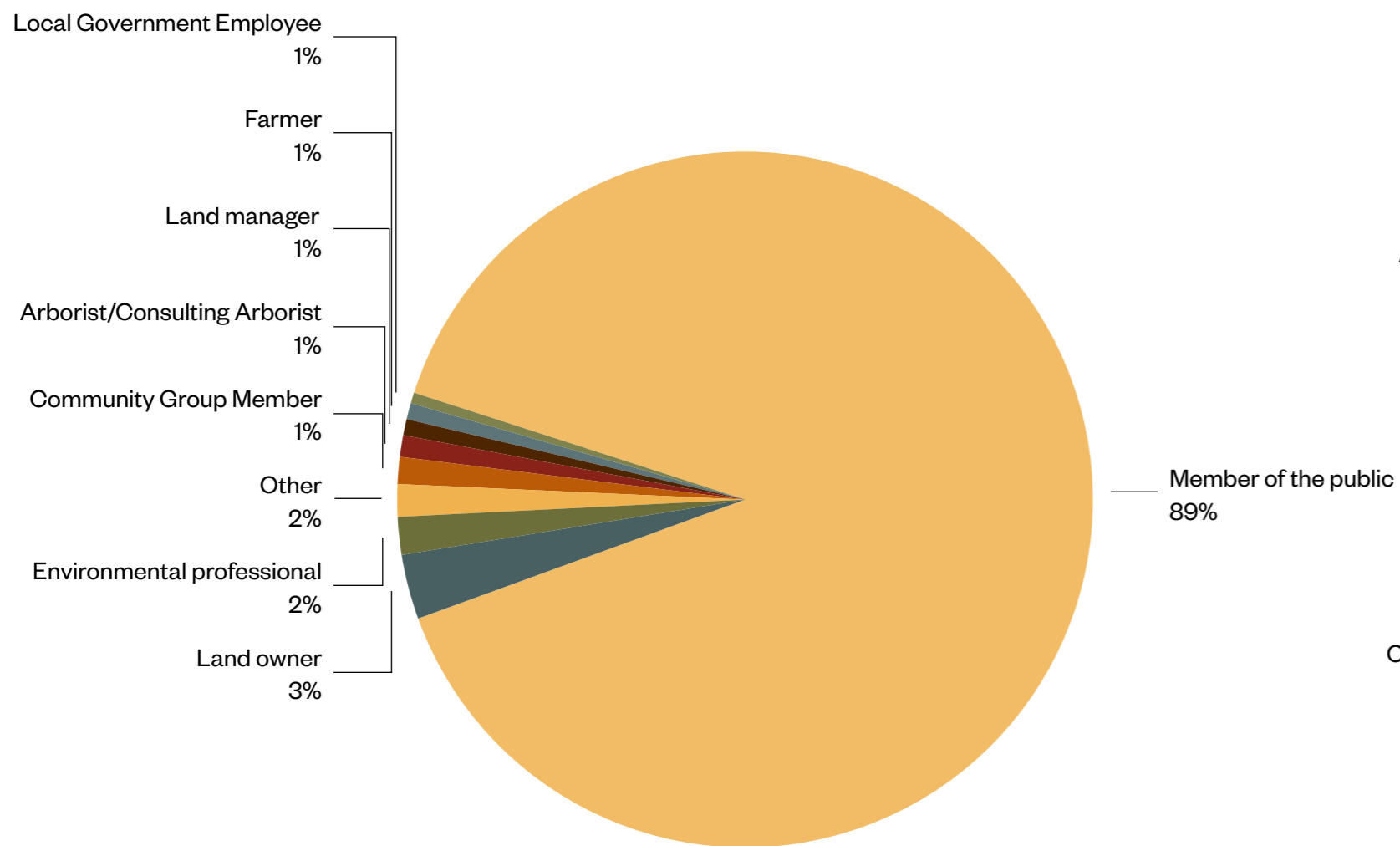
- Wildlife, biodiversity and concerns for native species,
- Safeguarding EDDC's Tree's, hedges and woodlands for future generations,
- Managing trees to deliver ecosystem services such as stormwater attenuation and improving air quality,
- Protecting, enhancing, and regenerating the natural green spaces across East Devon for the amenity, health and natural beauty of the local area.

Further to the public consultation, a number of workshops were held for internal and external stakeholders throughout the process. The outcomes from these workshops helped to deliver the vision, actions, and priorities for this plan.

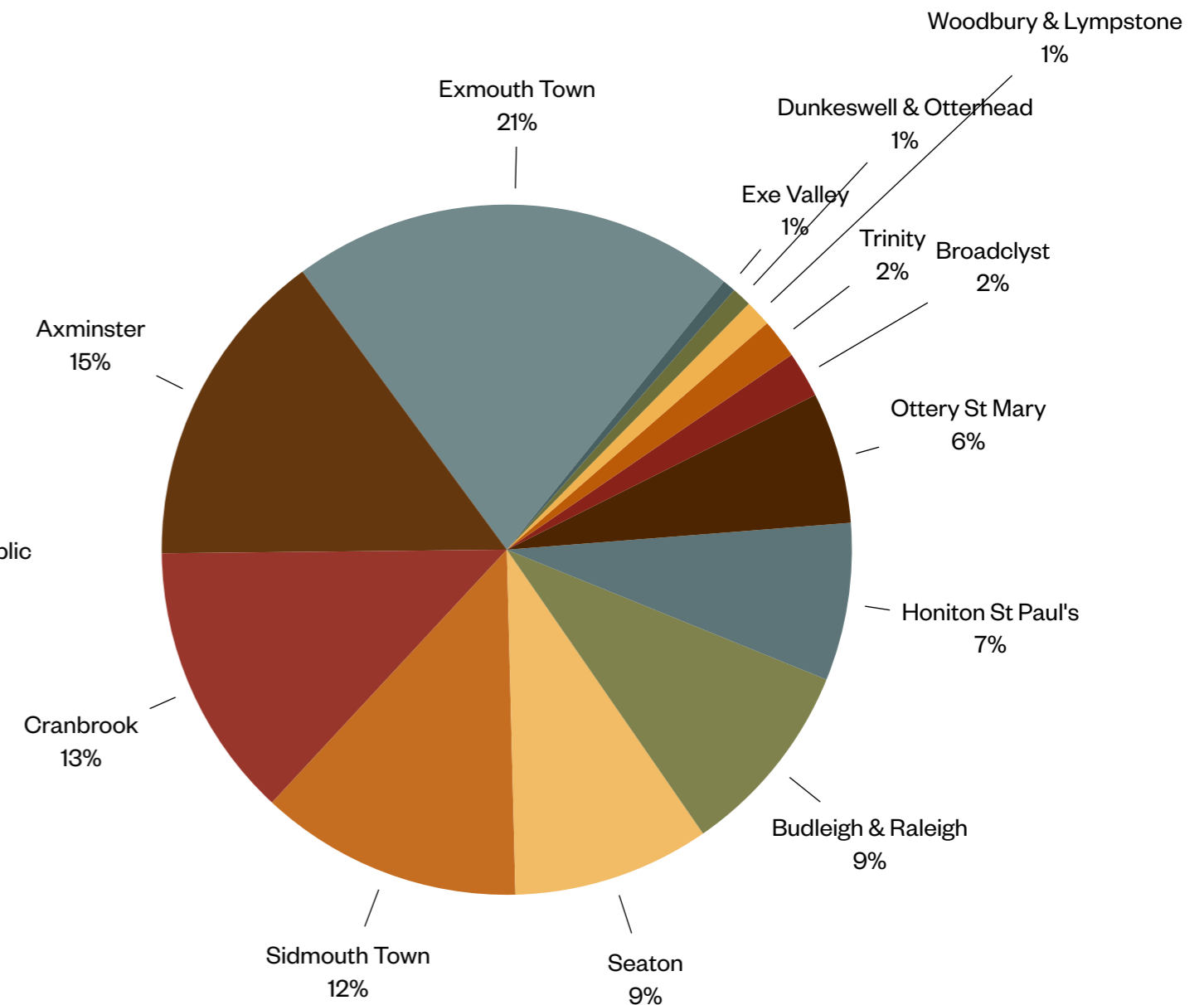
PLACEHOLDER

Responder profiles

Who are our consultees?



Where are our consultees based?

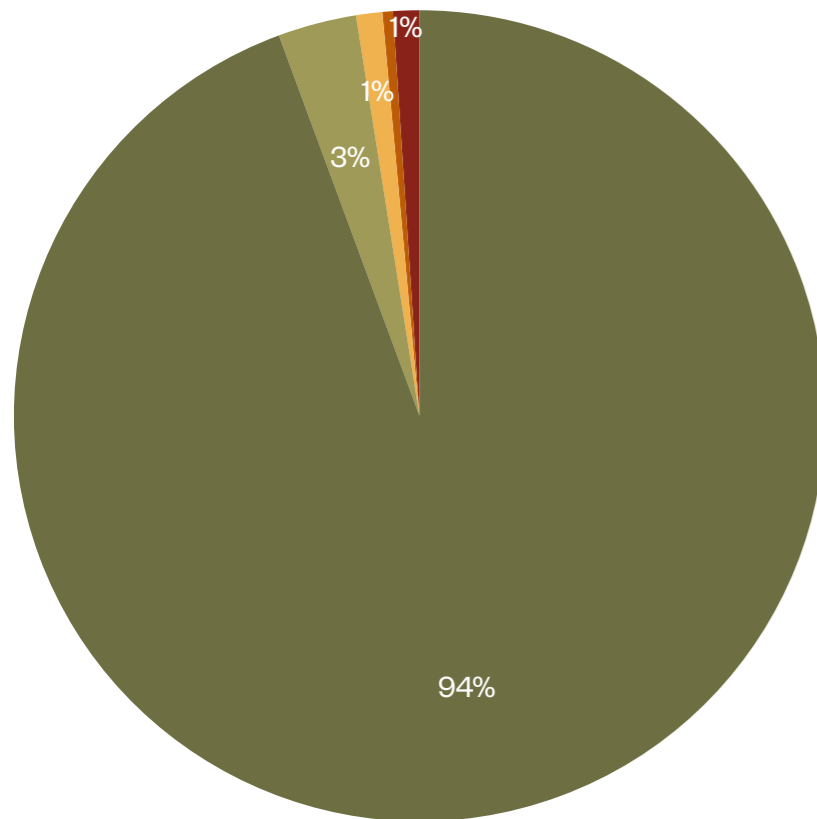


Almost 500 individuals interacted with this consultation. Some, however, did not complete all questions; most questions had 400-450 responses.

The vast majority of responders were members of the public. It is positive to see environmental professionals and local community group members interacting with this consultation.

13 of East Devon's 30 wards were represented by the consultees, however the larger towns account for a higher proportion of responders than the less densely populated wards. This may impact the results of the later questions in this survey, as the more urbanised areas of East Devon have a very different tree, woodland and hedgerow makeup than the rural areas.

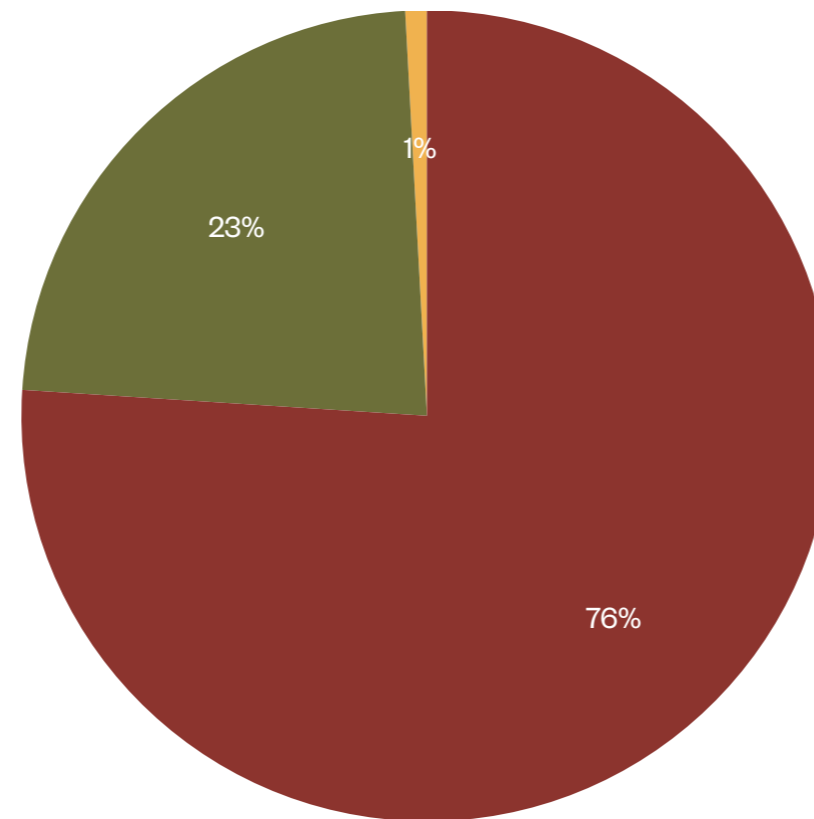
Q1. How would you rate the importance of having trees, woodlands, and hedges in East Devon's landscape?



- Very important
- Fairly important
- Neutral
- Unimportant
- Very unimportant

When asked about the importance of trees across the region the overwhelming response is that trees woodlands and hedgerows are "very important" to the people of EDDC.

Q2. Do you feel that there are the right amount of trees across East Devon?

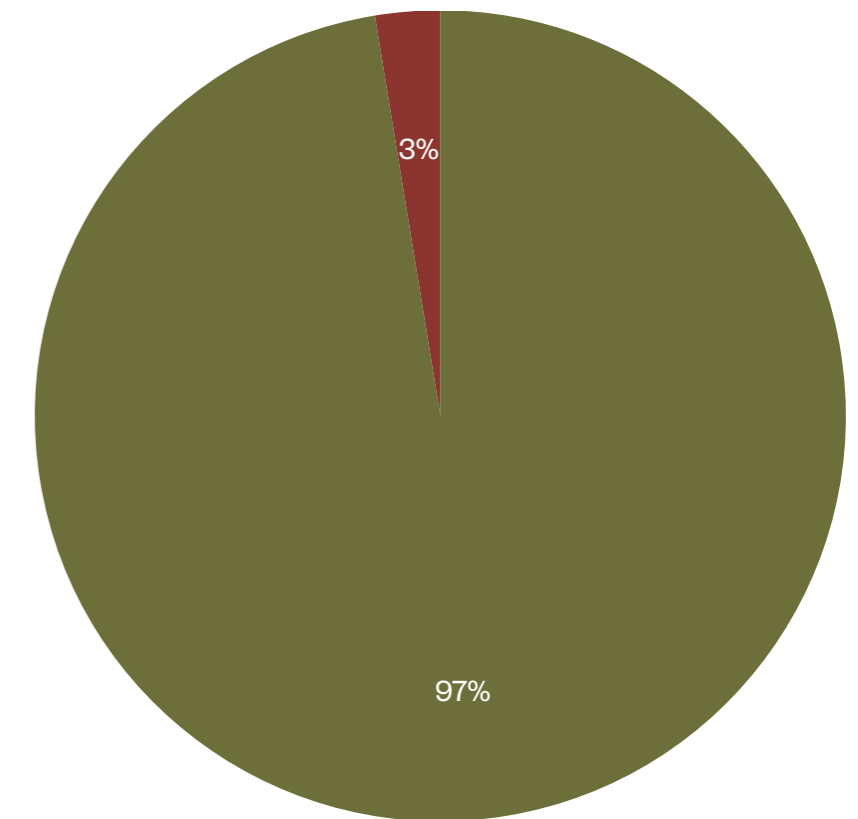


- Too few trees
- The right amount of trees
- Too many trees

When asked specifically about the number of trees in East Devon, the majority of respondents believe East Devon needs more trees, although almost a quarter believe that there are the right amount of trees .

The current tree canopy cover across EDDC is 21.7%, and this strategy includes a target of increasing canopy cover to 30%.

Q3. Can you see any trees from your property?



- Yes
- No

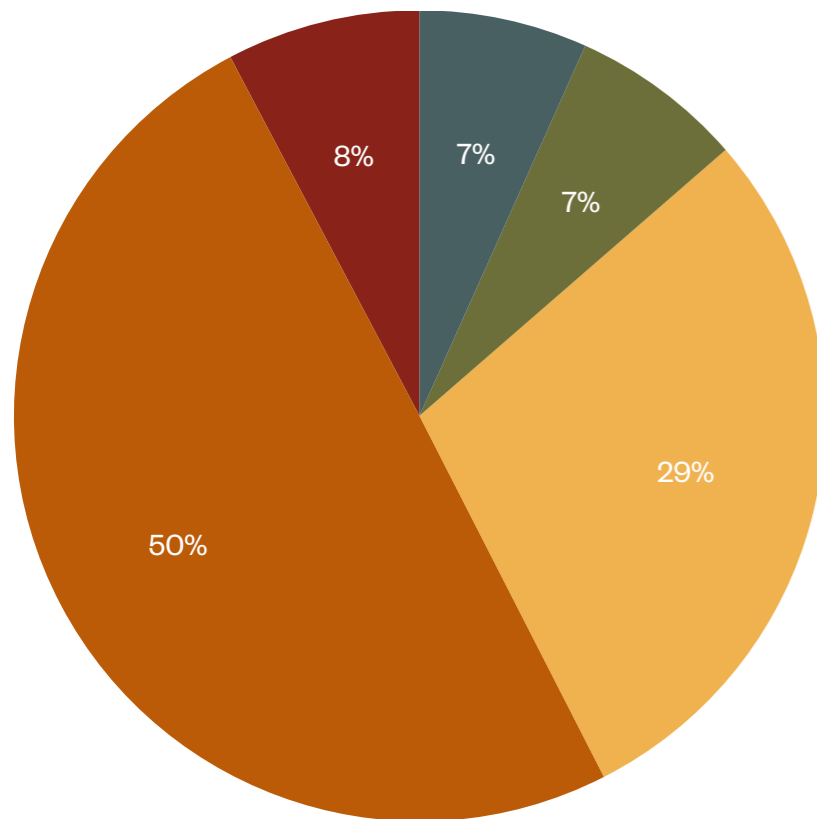
Almost all survey respondents state that they can indeed see trees from their property.

It is interesting to note that regardless of the fact that almost all respondents being able to see at least one tree from their home, that according to Q2, 23% of people believe that more trees are needed across East Devon.

The 3-30-300 rule may be a helpful guide to improve the public view on trees, particularly in urban and residential areas.

4 Consultation Feedback

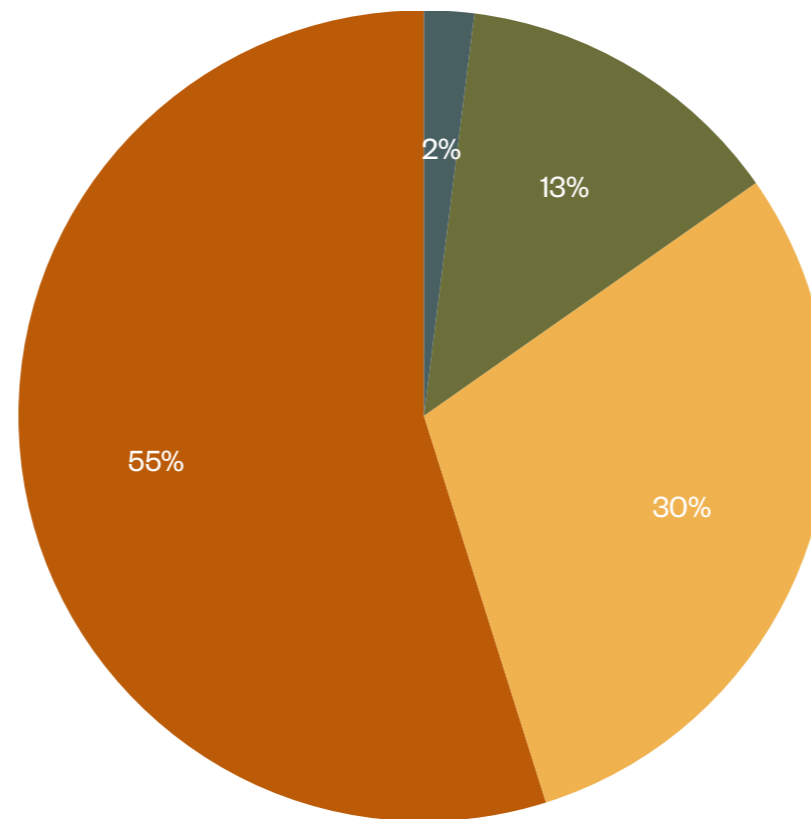
Q4. What type of tree(s) can you see from your home?



- A Park tree
- A street tree
- Part of a woodland or hedge
- Privately owned
- Unknown

Interestingly, exactly half of the trees seen from respondents' homes are privately owned trees, either in their own gardens or that of neighbours. The next highest proportion of trees belong to woodlands and hedgerows, highlighting the importance of these features in East Devon's landscape.

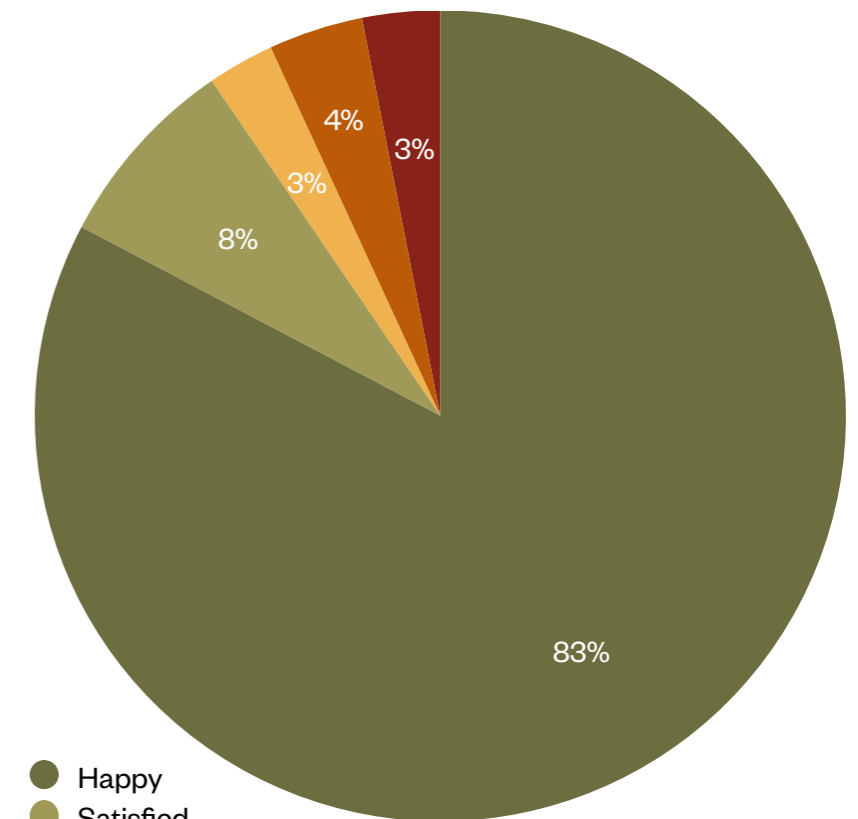
Q5. What size is/are the tree(s) you can see from your home?



- Newly planted
- Up to the height of a bungalow
- The height of a two storey house
- Over the height of a 2 storey house

Question 5 reveals that only 2% of trees seen from homes are newly planted. This is likely simply that small trees are difficult to see and more are likely to be obscured by other infrastructure, but could also be a potential indication that new planting has been limited in residential and urban spaces. Further investigation into recent planting practices and priorities would clarify this. The majority of trees seen are large, mature trees. Again, this may be simply that they can be seen from further away and are not obscured by buildings thereby appearing to be more common than smaller trees, however given the response the Q4, it is reasonable to believe that more of the trees within view of homes are simply mature woodland trees.

Q6. How do you feel about the tree you can see from your home?

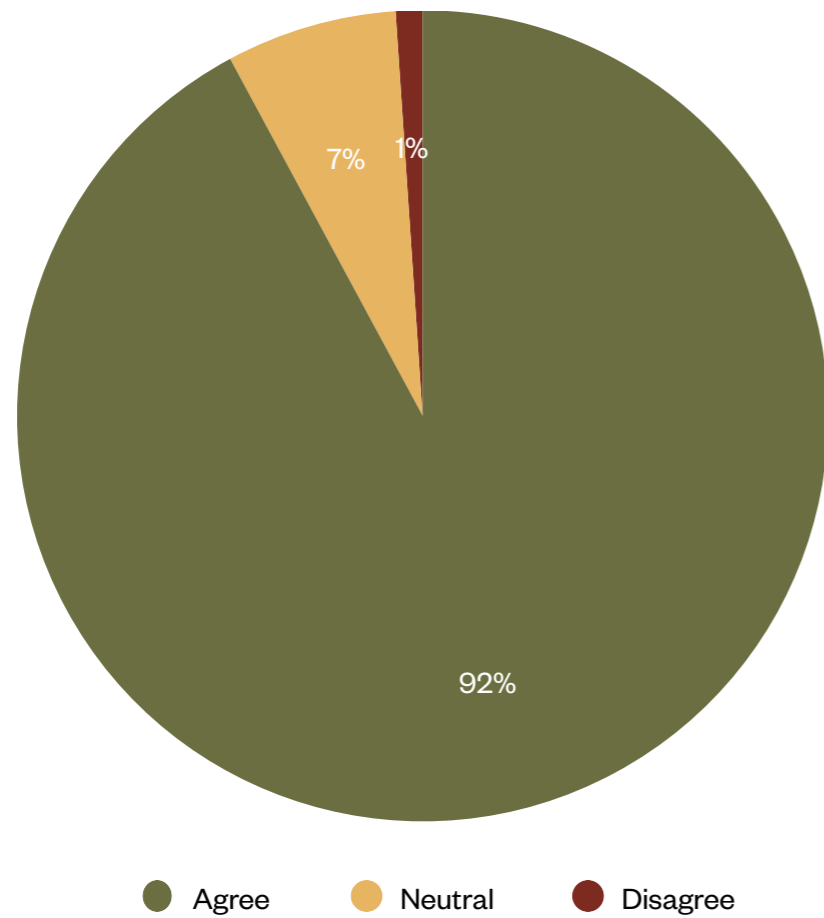


- Happy
- Satisfied
- Neutral
- Dissatisfied
- Unhappy

The responses to question 6, regarding the feelings towards the trees that consultees can see from their properties are exceptionally positive. The few which are negative are understandable and the comments of the respondents reflect the main themes of a lack of light, excess leaf litter and lack of maintenance and potential risk of property damage.

The positive feedback reflects consultees intrinsic understanding of the value of trees, even if they are not directly aware of the specifics.

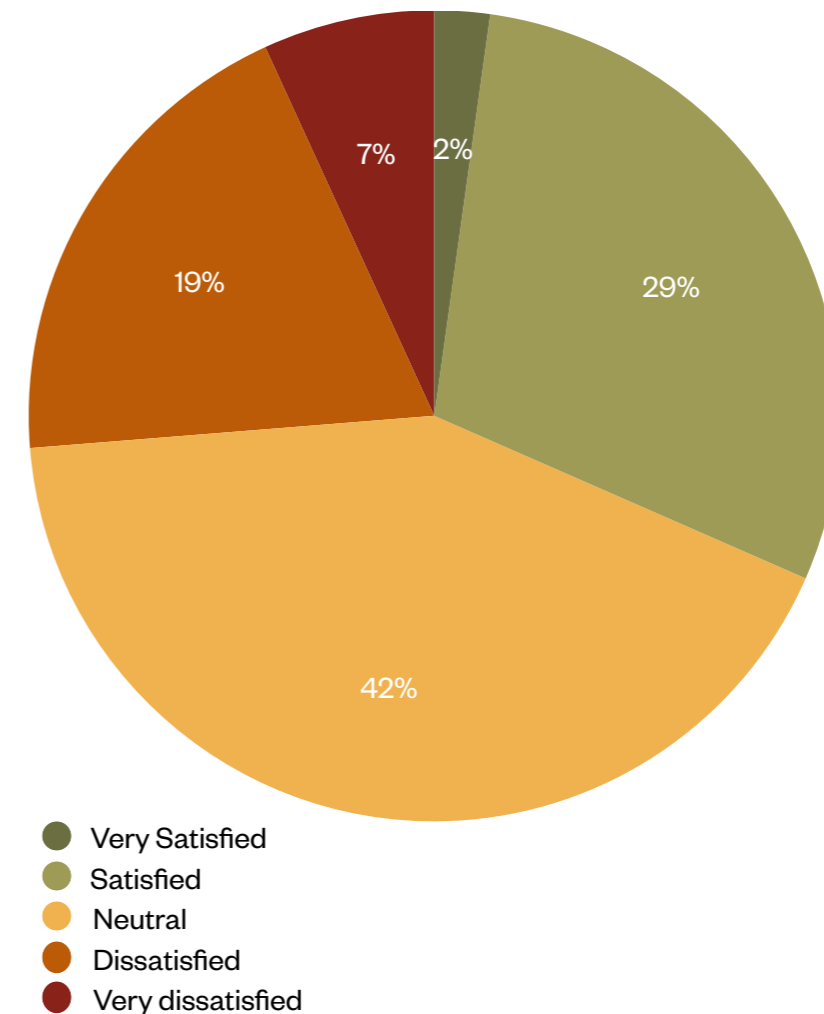
Q7. Should EDDC actively encourage new tree planting across both private and public locations?



The vast majority of respondents believe that EDDC should promote and action more tree planting, and most others did not feel strongly either way.

This is interesting considering 23% of respondents answered Q2 by stating that they believe East Devon has the right number of trees. This may be indicative of the belief that more is better when it comes to trees, and that people recognise the benefits to continuing to plant trees, both in terms of ecosystem service provision and to replace dead and dying trees each year, regardless of the number of existing trees.

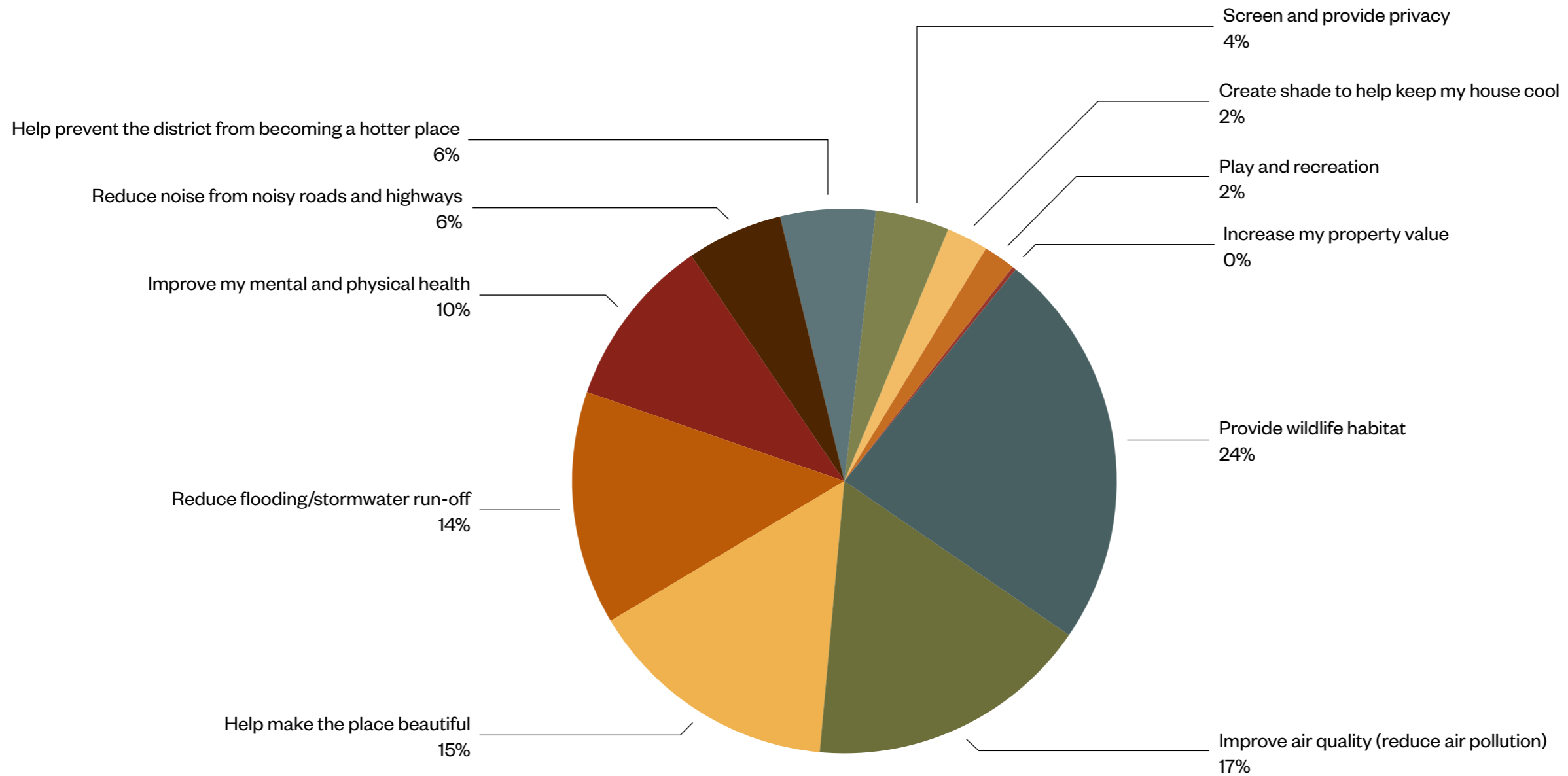
Q8. How do you feel about the care of street and park trees in East Devon?



Question 8 addresses public perception of tree management. Whilst a considerable proportion of consultees did not feel strongly either way, 58% of respondents did have an opinion on street and park tree management. This opinion was split almost in half by those who felt positively and those who felt negatively, with about 5% more respondents feeling positively than negatively. However, 7% of people feel “very dissatisfied” compared with only 2% who feel ‘very satisfied’.

4 Consultation Feedback

Q9. Which benefits that trees, hedges, and woodlands in East Devon provide are most important to you?



The highest priority for the consultees is to ensure that the trees, woodlands and hedgerows of East Devon provide a habitat for wildlife. Other ecosystem services were also considered important, particularly regarding air quality and flooding. Amenity benefits were also important, with natural beauty, mental and physical benefits, and recreational space accumulating 27% of votes.

5

Appendices

Biosecurity

Sourcing trees, soils, mulch and other wood products
Monitoring trees and raising awareness
Reporting outbreaks

British Standards

BS5837
BS8545

Tree Planting & Establishment

Green Infrastructure in Planning

Hedgerow Management and Maintenance

Woodland Management and Maintenance

Watercourse & Wetland Management and Maintenance

Data Sources

Canopy Cover

Google Environmental Insights Explorer (EIE) was used to collect information on the tree canopy cover for East Devon District Council. Google EIE uses high resolution aerial imaging in combination with human driven machine learning to map tree canopy cover present. This is the most accurate data available and is updated regularly although the data presented in this report will be reliant on the most up to date images at the time.

Abbreviations

BNG - Biodiversity Net Gain
BSI - British Standards Institution
CAVAT - Capital Asset Valuation for Amenity Trees
DCC - Devon County Council
EDDC - East Devon District Council
ISA - International Society of Arboriculture
LPA - Local Planning Authority
NFI - National Forest Inventory
NGO - Non-Governmental Organisation
NTSG - National Tree Safety Group
NTM - National Tree Map
RTC - Relative Tree Canopy
SSSI - Site of Special Scientific Interest
TDAG - Trees and Design Action Group
TEMPO - Tree Evaluation Method for Preservation Orders
TPO - Tree Preservation Order
USDA - United States Department of Agriculture

Glossary of terms

Arboriculture- The selection, production, planting, maintenance, and removal of all woody plants for amenity purposes.

Biodiversity- A measure of biological variation, whether represented by gene, species, habitats or ecosystems.

Biosecurity- A set of precautions to reduce the risk of accidentally introducing or spreading alien invasive species, including potential pests and pathogens.

Canopy Cover- A 2-dimensional metric quantifying the area of ground covered by tree canopy when viewed from above, where tree canopy is the collective branches and foliage of the tree.

Carbon sequestration- Processes that remove carbon from the atmosphere.

Carbon storage - The amount of carbon bound up in the above-ground and below-ground parts of woody vegetation.

Community forestry- Addresses the social benefits of the urban forest: community pride, community planting and care projects, reduction of violent crimes and a sense of safety.

Conservation- Use, management and protection of natural resources that insures use and enjoyment for future generations

Ecosystem Services- The ways in which humanity relies on ecosystems for the continued provision of clean air, drinking water, an equitable climate, the productivity of agriculture, forestry and oceans, control of flooding, soil erosion, coastal erosion, carbon sequestration etc.

Ecosystem- A unit of ecology consisting of a more or less discrete community of species, interacting with each other and their physical environment.

Environment- The prevailing conditions which reflect the combined influence of climate, soil, topography and biology (other plants and animals) present in an area.

GIS (Geographic information system)- A collection of computer hardware, software, and geographic data for capturing, storing, updating, manipulating, analysing and displaying all forms of geographically referenced information.

Green infrastructure (GI)- An interconnected network of waterways, wetlands, woodlands, greenways, parks, forests, and other open spaces that support native species, maintain natural ecological processes, sustain air and water resources and contribute to health and quality of life. Includes parks, parkways, riparian buffers, residential landscaping, street trees, rain gardens, green roofs, and window boxes.

Green space- Any vegetated land or water within an urban area that serves as recreation or open space. This includes neighbourhood and regional parks, gardens, cemeteries, playing fields, bike and walking paths, and urban landscaping.

Greenway/green corridor- Corridor composed of natural vegetation. Greenways can be used to create connected networks of open space that include traditional parks and natural areas.

Habitat- Food, water, shelter and space that supports plant or animal life.

Impervious surface- A hard surface (such as a car park or rooftop) that prevents infiltration of water into the ground, causing water to run off the surface.

Infiltration- The downward movement of water from the land surface into the soil.

Inventory, Tree- Gathering of accurate information on the health and diversity of the community forest which can include: listing and description of trees and planting sites.

Microclimate- The climate of a site as modified by local site factors.

Native Species- Species present in a defined region for a certain amount of time without having been brought by humans (cf. exotic), for instance in Britain since the English Channel was flooded around 6,000 years ago.

Non-native species- A species that due to direct or indirect human activity occurs in locations beyond its known historical or potential natural range. Refers to species from another continent, region, ecosystem, or habitat.

Pollution- Substances introduced into the environment by human actions that contaminate the environment.

Stormwater runoff- Precipitation that falls on impervious surfaces (such as roofs and roads). Because it is not absorbed by soil and vegetation, it flows into storm drains.

Subsidence- In relation to soil or structures resting in or on soil, a sinking due to shrinkage when certain clay soils dry out, sometimes due to the extraction of moisture by tree roots.

Tree Protection Order (TPO)- A legally enforceable document made by the local planning authority to protect trees and woodland in the interests of public amenity. While trees in conservation areas are automatically protected, individual trees outside these areas may be protected with a Tree Preservation Order.

Urban Forest- Trees, woody shrubs, hedges, herbaceous plants, waterways, wildlife, grasses, and other green infrastructure (including green roofs, green walls etc.) within the built environment, considered collectively over an extensive area.

Urban heat island effect- A phenomenon where air temperatures in urban areas are 2-10°F hotter than surrounding rural areas due to the high concentrations of buildings and pavement in urban areas.

Stem Diameter (DBH)r- The diameter of a tree at around 1.5 metres above ground level.

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