

Trees, Planning and Development

A Guide for Delivery

Section Two:

Planning the urban forest: how to develop a Strategy that delivers



Primary Partners



Navigation

The below shows the different types of content – from quick-reads such as *Key points* through to *Detailed references* hyperlinking to source material. Use the various arrows to efficiently navigate the document and go directly to the chosen page.

This generic guidance aims to provide the necessary information for developing a Strategy for all levels of knowledge from students to established professionals.

Key points

A quick-read box highlighting the key points discussed within the main text below.

Glossary terms

Terms are hyperlinked to the Glossary on page 42.

Case Studies

Referenced in the guide and hyperlinked to our Case Study Library: tdag.org.uk/casestudies

Briefing Notes

Detailed information and references.

Appendix

Urban forest sustainability performance Indicators for the UK.



The six elements navigation

Click arrow to go directly to the element.

Section One

Click arrow to open Section One.

Contents page

Click arrow to go directly to the page.

Information boxes

Further explanations and other supporting details.

Detailed references

For original source material.

Overview

Trees Planning and Development: A Guide for Delivery covers the planning, protection, delivery and monitoring of trees in developments throughout the UK.

Purpose

This section looks beyond new developments and focuses on developing a Strategy for a local **urban forest** to deliver the benefits that trees provide equitably across an urban environment.

Audience

The principles and processes in this section are relevant for local authorities and all owners of large or small tree populations as well as designers, arboricultural consultants and other stakeholders.

Definition

A strategic plan for an urban forest can also be known as A Tree and Woodland Strategy, an Urban Forest Strategy or Masterplan or a Comprehensive Tree Strategy. A Strategy encompasses all the trees within a geographical area regardless of ownership.

Section One

This provides a better understanding of the many financial, social and environmental benefits trees offer new developments and how to secure them.

How to use this section

2.1 A Strategy project at a glance

2.2 Strategy basics

2.2.1 Who benefits from having a Strategy?

2.2.2 What is a Strategy?

2.2.3 Why have a Strategy?

2.2.4 How does a Strategy fit with other documents and how are they interrelated?

2.3 Strategy contents

2.3.1 What underpins urban forest sustainability?

2.3.2 The design

2.4 Strategy elements

Propose: Scope, support, resources

Prepare: Data, costs, people, programme

Context: Analysis, typologies, needs

Vision: Define vision, targets, timeline

Strategy: Draft Strategy, SMART action plan

Deliver/Monitor: Deliver, manage, monitor

Further reading

Glossary

Acknowledgements

Financial support

Our guides and other resources

2.1 A Strategy project at a glance

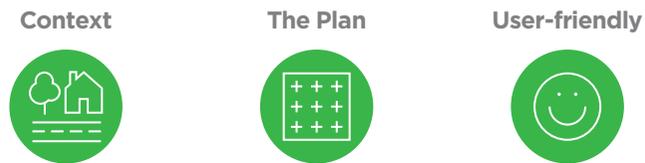
In developing a Strategy, work at the rate that funding and resources can support. If these are limited, then start small with a local park or simple canopy cover assessment. With more information and/or funding and ready support, proceed to develop a comprehensive Strategy. Whatever the case, this document identifies the players, the design and the elements required for delivery – which ones to focus on are a matter for local requirements.

The Strategy project requires:

The players



The design



The elements



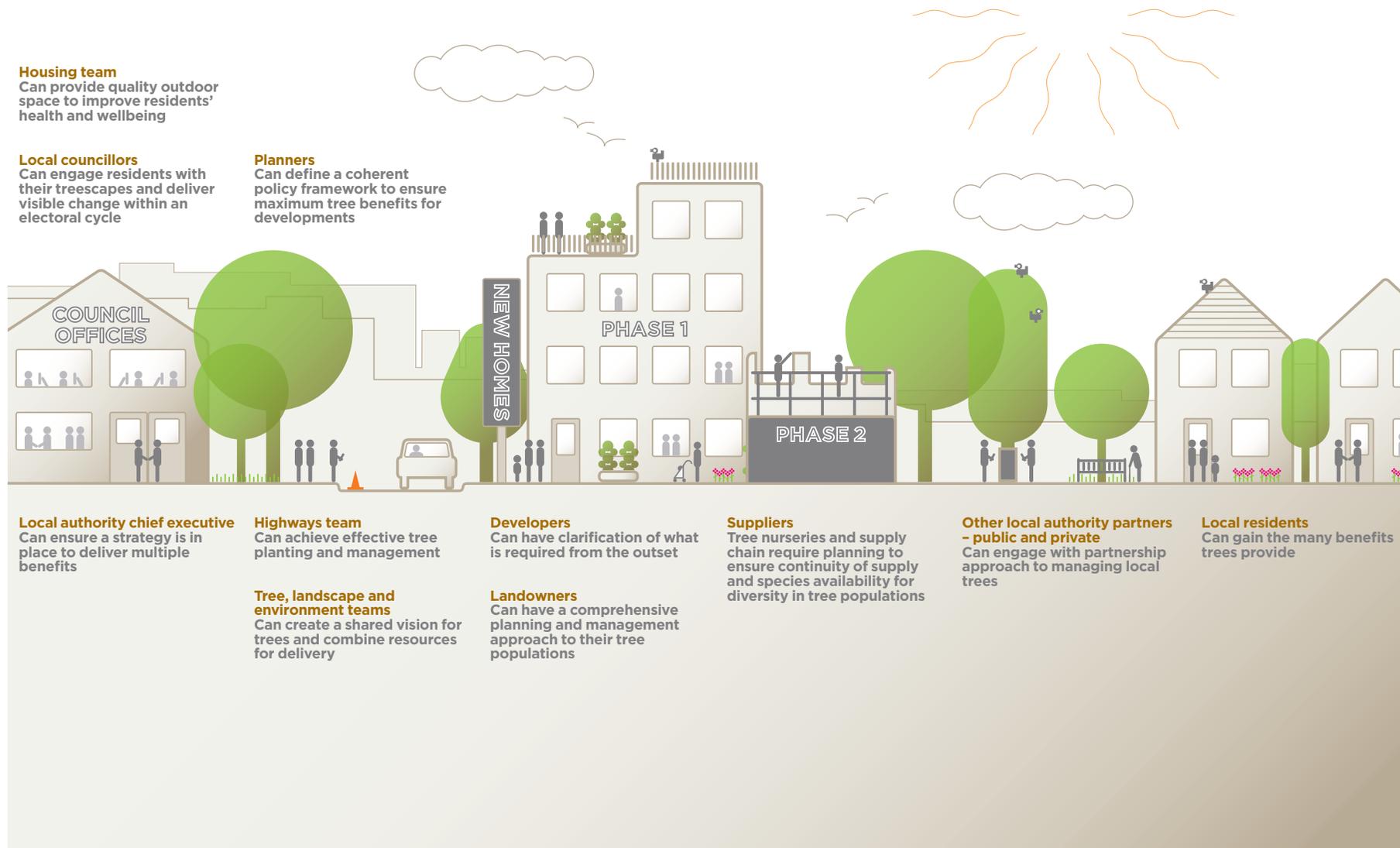
i Outlining the six elements

Develop a Strategy at the rate that resources can support. The elements to focus on, if not all, are a matter for local requirements.



2.2 Strategy basics

i 2.2.1 Who benefits from having a Strategy? A robust adopted Strategy can create connections and benefits for many sectors both within and beyond the local area



2.2.2 What is a Strategy?

Key points

An appropriate Strategy provides a place-specific plan to protect, improve and expand local tree cover. It must be formally adopted to deliver the desired benefits now and into the future.

Delivery-oriented

The primary focus of a Strategy is to provide a clear, long-term framework for delivery and ongoing stewardship. This will be aided by undertaking a **Specific, Measurable, Achievable, Realistic and Time-specific (SMART) action plan** to deliver the Strategy in practice. See [box right](#).

Place-specific

Principles of good practice may be universal but translating such principles into relevant priorities and actions involving the right stakeholders will need to be shaped by local circumstances. A good Strategy should include recommendations responding to varying needs, aspirations, opportunities, capacity for action across the project area and changes in landscape or treescape character.

Collaborative

Trees and woodlands can be found in all land uses with their ownership widely distributed between public bodies and a range of private owners. Widespread collaboration and stakeholder engagement provides a reliable way to develop a good Strategy with key outcomes which deliver on an on-going basis.

Formally adopted

Adoption is necessary for a Strategy to have weight in day-to-day decisions along with a commitment to resource its implementation.

Enhancing the sustainability of the local urban forest

Urban forest sustainability is the ongoing role for a strategic plan. In this context sustainability can be defined as the ability for a local **tree population** to provide the desired benefits and connectivity both now and in the future.



The role of a SMART action plan

Specific Measurable Achievable Realistic Time-specific

A **SMART** action plan is an effective delivery method for a Strategy. It identifies specific actions and specific individuals or organisations to take responsibility for delivering the actions outlined. Each action must have:

- The relevant goal it is supporting.
- Leadership/responsibility to deliver on that goal's action.
- Identify the other partners involved.
- Start and completion dates.
- Indicators/measures of success.
- Estimated costs (capital and revenue).
- Funding sources.



Sighthill Transformational Regeneration Area is a short walk from central Glasgow. LDA Design's landscape led masterplan has a green and blue natural network at its heart. Tree retention, extensive new planting of over 4,000 trees to date, and access to green space and woodlands enables the residents to experience the 3-30-300 rule in practice (see 2.3.2).

© LDA Design

2.2.3 Why have a Strategy?

Key points

There are many reasons why having a Strategy is important. The management of tree populations involves many players often with conflicting agendas and differing priorities which can be difficult to reconcile. A Strategy provides the means to construct an agreed long-term plan for the urban forest taking into account various perspectives through engagement and participation. It provides a clear long-term plan – evidence based, prioritised, resourced and monitored – directed towards an agreed ‘vision’ for the urban forest in any geographically identified area. Revisiting the 12 action-oriented Principles in *Trees in the Townscape: A Guide for Decision Makers* can provide a useful starting point (see guide right).

The many reasons for having a Strategy are set out below under different headings, but it must be remembered that this list is not exhaustive, and the reasons will vary significantly from locality to locality.

Identify and plan to achieve the many benefits of the urban forest:

- Protect and increase the local tree and woodland resource.
- Adapt to and mitigate climate change.
- Increase biodiversity including Biodiversity Net Gain (BNG).
- Enhance public health, education and social care.
- Support economic growth.
- Support safe and local sustainable travel.
- Evaluate, understand and maximise the many ecosystem services provided by trees.

Engage and enlist influential individuals and organisations at both political and societal levels:

- Define and communicate the social, economic and environmental benefits of the urban forest to all stakeholders¹.
- Provide a means for individuals and organisations to participate in urban forest development.
- Increase the range of influencers.
- Provide a means for ‘tree champions’ to emerge.

Increase Resources available for urban forest, maintenance, management, and development:

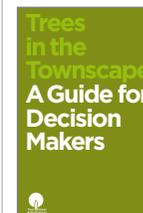
- Maintain and increase budgets for tree management and maintenance.
- Attract external funding from engaged individuals and organisations.
- Plan the use of existing financial and human resources to avoid waste, duplication, and repetition.
- Increase the profile, influence, and position of tree managers in organisational structures.
- Save money by using resources more efficiently and effectively.
- Co-ordinate the use of funds held under varying departmental and organisational budgetary headings.
- Save time with co-ordinated and planned actions which are clearly defined.

Harmonise, unify, inform and co-ordinate management:

- Identify collect and use data to inform decision-making.
- Create, maintain, and use an effective tree work management system informed by evidence.
- Programme routine management for health and safety.
- Manage threats from pests and pathogens to mitigate the effects of climate change.
- Protect urban forest management from ill-considered changes in management hierarchy and personnel.
- Develop skills and depth of management.
- Reduce risk.
- Meeting statutory planning duties (local authorities).

Increase the participation and involvement of all stakeholders:

- Raise the awareness about the benefits of urban trees.
- Encourage the participation and involvement of the community in developing the urban forest.
- Facilitate community cohesion.
- Use tree wardens, friends of groups, community groups and others to work constructively towards a clearly defined vision.
- Engage with other interest groups whose priority may not be trees.



12 action-oriented principles as a 21st century approach to urban trees, providing decision makers with the references they need to fully realise this potential.



¹ Forest Research have carried out an i-tree survey for Wirral Council, the first to include measures of the social and cultural values of trees. <https://www.forestresearch.gov.uk/research/i-tree-eco/i-tree-eco-projects/i-tree-eco-wirral/> and <https://www.forestresearch.gov.uk/research/valuing-and-governing-tree-and-forest-ecosystem-services/valuing-tree-and-forest-ecosystem-services/>

Increase the protection of trees:

- Create the conditions where all trees are valued, maintained and protected where appropriate.
- Promote the health of trees.
- Integrated bio-security procedures.
- Understand the importance of the existing **tree population** and the complexities of diversity within that population.
- Understand the importance of succession and the role of existing trees to ensure succession is achieved.
- Increase the resources available for the management and maintenance of existing trees.

Understand the importance of planned and programmed tree planting and subsequent establishment:

- Avoid the use of spurious targets such as an increase in canopy cover by a given percentage in an unrealistic given time and planting by numbers.
- The creation of long-term and focused tree planting plans.
- Identify total tree stocking levels.
- Tree planting to mitigate clearly identified environmental challenges such as the urban heat island effect and atmospheric pollution.
- Tree planting to redress environmental inequity.
- Increased establishment rates through planned and programmed management and maintenance.
- Introduction of unused **species** to increase diversity and resilience.
- Liaison and co-operation with tree nurseries to ensure continuity of supply of both numbers and species.
- Engagement, coordination, and co-operation of community groups to ensure planting programmes.
- Increase third party contributions for tree planting.

Wolverhampton's Tree and Woodland Strategy

The Strategy's approach² raised the profile of trees in both the council and the community, expressing clearly the current situation and what could be done.

"In practice the Tree and Woodland Strategy has proved very useful as a statement of intent and as a support for taking action on trees including: investing more in our relevant services; getting involved in the Black Country i-Tree Eco Study; and planting more trees. It is very useful as a starting point for developing initiatives."

**Ric Bravery, Strategic Health Lead (Planning),
 City of Wolverhampton Council**



² See: <https://wolverhampton.moderngov.co.uk/documents/s135536/Appendix%202%20Tree%20and%20Woodland%20Strategy.pdf>

2.2.4 How does a Strategy fit with other documents and how are they interrelated?

Key points

For local authorities and other landowners a Strategy should reference a range of other Strategies and link them within an overall policy framework. Responding to international strategies and targets at the local level supports UK government commitments. See below for some strategies to consider.

Climate change adaptation strategy

A Strategy will often be the primary delivery mechanism for climate adaptation ambitions.

Flood risk management strategy

Trees can be powerful tools to manage surface water and enhance catchment management.

Natural environment strategies

Tree strategies, open space, green infrastructure, biodiversity and Local Nature Recovery Strategies (LNRS) and all have a distinct but closely connected role and influence each other.

Regeneration strategy

The impact trees can have on enhancing quality of place make them an important consideration for regeneration strategies.

Transport strategy including active travel

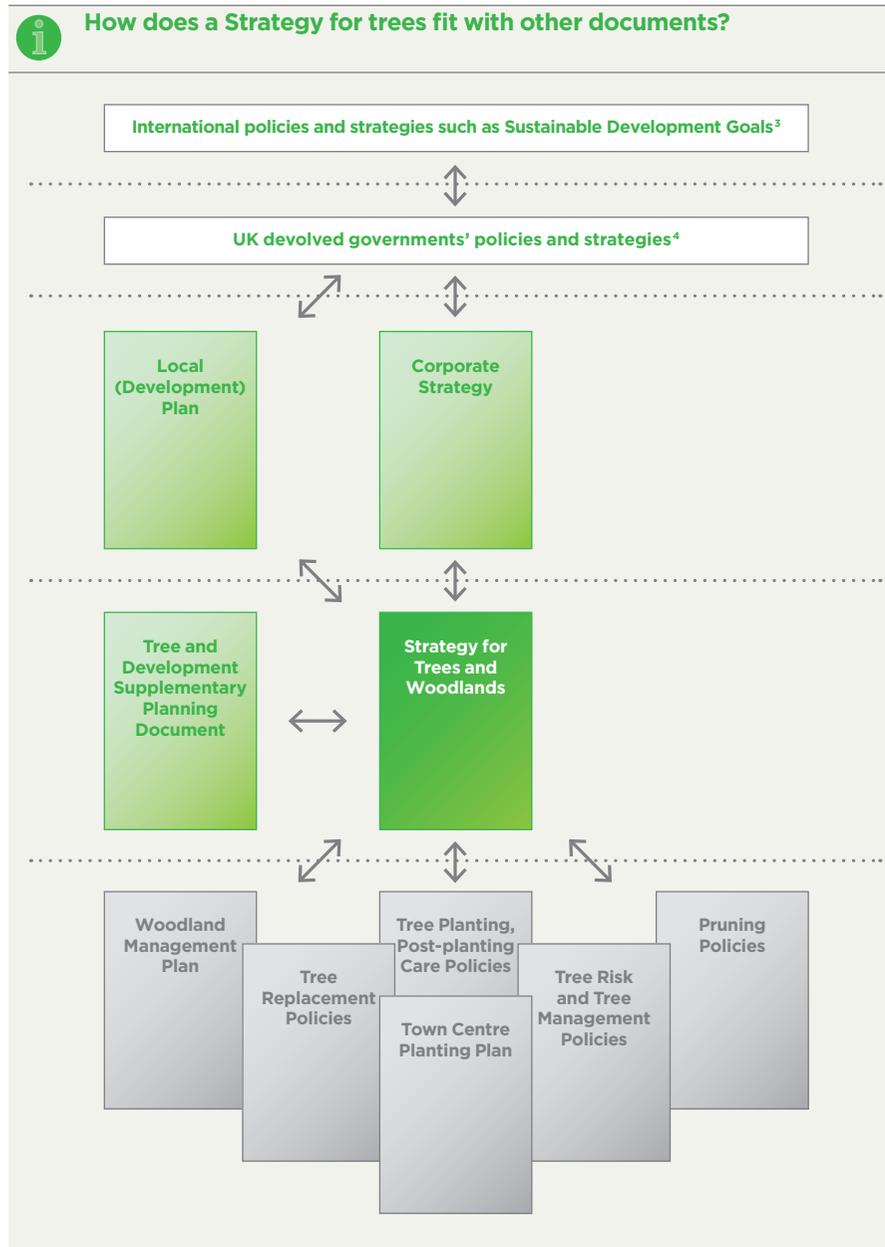
Transport and tree strategies are mutually enabling: one creates the space for trees where most needed, the other provides the environment for safe and sustainable active travel.

Housing strategy

Trees make significant contributions towards creating healthy and sustainable homes.

Economic development strategy

Whether the development of ‘green’ skills and jobs, or the creation of attractive settings for businesses, trees and economic development strategies have meaningful areas of overlap.



³ UN Sustainable Development Tools. <https://sdgs.un.org/goals>
⁴ **England:** England Trees Action Plan. National Planning Policy Framework (NPPF) (2021)
Scotland: National Policy Framework 4 (NPF4)
Wales: Planning Policy Wales, Edition 11 (2021)

Section Two: Planning the urban forest: how to develop a Strategy that delivers

The six
elements

➤ Propose

➤ Prepare

➤ Context

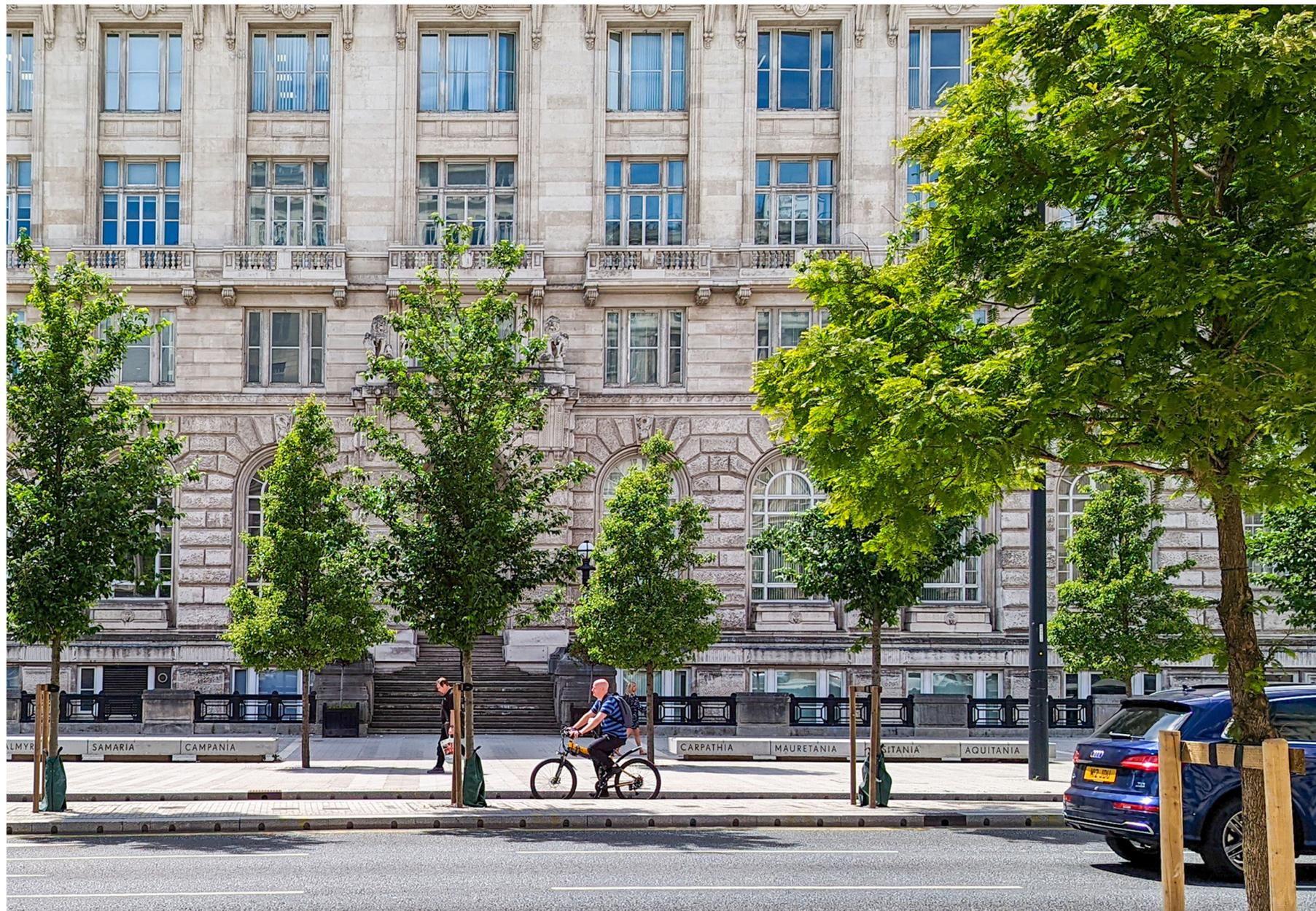
➤ Vision

➤ Strategy

➤ Deliver/
Monitor

➤ Contents

➤ Section
One



In The Strand, Liverpool, space has been created for trees to help provide safe and sustainable active travel such as segregated cycle lanes. This also shows how restructuring highways allows space for trees, with over 150 planted within the DeepRoot structural Cell System and permeable paving. The City Council has invested in the future of these to help meet climate change targets.
© BCA Landscape

2.3 Strategy contents

2.3.1 What underpins urban forest sustainability?

The players

- Trees: the characteristics of the local tree and woodland resource.
- Policymakers: national and local government.
- Landowners: with management and funding to support it.
- Community: which sustains and benefits from its existence.

The design

Outline a Plan for change

Answer the four key questions overleaf to establish:

- Current provision and needs.
- Vision and goals.
- Key priorities for action.
- A **SMART** action plan.
- Governance process.
- Performance.

Give context

Points to clarify include:

- The motivation for developing a Strategy.
- The people involved.
- Key findings from consultation.
- The risks of doing nothing.
- The existing policy context.

Make it user-friendly

Accessibility and ease-of-use will encourage support and implementation:

- Keep it concise and use visuals.
- Have an executive summary.
- Highlight key statements.
- Identify the actions.



An effective Strategy requires integrating the players and the design

All of these have a role to play in enhancing the sustainability and resilience of the urban forest.



2.3.2 The design



Outline a plan for change

To define a reliable plan for achieving a set of strategic goals promoting the sustainability and expansion of the local urban forest, a Strategy needs to provide clear answers to the four questions below, with input from all engaged in developing it.

What do we have?

A simple visual overview? Comprehensive data? In time more details may be needed. Further analysis may aid a spatial understanding of local tree provision and needs. See the **Prepare** and **Context** elements for data sources to use and the analytical approach.

How do we identify what we want?

Create a shared vision for the future of an urban forest (public and private) and its contribution to the prosperity and wellbeing of local communities and the natural environment.

How do we achieve what we want?

An effective Strategy can achieve the vision, agreed goals and prioritise actions across **urban forestry** best practice including protection, establishment, management, benefits, engagement, collaboration and resourcing.

A **SMART** action plan will define how, when and by whom the actions will be put into practice, assigning responsibility for each action, identifying delivery partners, estimating the resources needed and how these will be provided with a timeframe for completion and planned revision. See the **Vision** and **Strategy** elements.

How do we know we are achieving what we want?

Monitoring and reviewing implementation and a process for agreeing improvements/changes is required. A Strategy must define an on-going governance framework as well as indicators designed to monitor both actions (are we doing what we said we would do?) and outcomes (is it producing the outputs we were pursuing?). See the **Vision** and **Strategy** elements.



Give context

Concise contextual information increases confidence in how the Strategy was developed and provides the rationale for its direction. Consider the questions below.

Why do we need a Strategy?

Spelling out the motivations for the development of a Strategy helps make the document self-explanatory. See the **Propose** element.

How was the Strategy developed?

Providing insight into how it was developed and emphasising who was involved demonstrates the range of views, collaboration and aspirations it captures. This lends gravitas to the work, making it harder to dismiss.

What have we heard from communities and other partners?

Key findings from consultations are worth capturing and are used to inform a Strategy. This helps demonstrate support and shows local communities and partners that their views are taken into account.

What are the risks of doing nothing?

Being explicit about the likely consequences of a 'do nothing' (or 'change nothing') scenario can be a powerful addition, especially when supported with data, to the rationale for having a Strategy. See the **Propose** element.

How does it fit with existing policies?

A selective summary of the national, regional and local policy context is valuable, but keep it concise. See the Leicestershire County Council's international, national and local policy review⁵. See also **Briefing Note 01** for key legislation relating to trees in all four countries of the UK.



⁵ *The Value of Trees*, Leicestershire County Council (2022) pp 46-65. <https://www.treeeconomics.co.uk/wp-content/uploads/2023/01/Leicestershire-Value-of-Trees-Report.pdf>



Make it user-friendly

Document accessibility and ease-of-use matter. Some suggestions are below.

Keep the core document concise

The aim is to articulate clearly what needs to happen and how, with enough of an understanding of why.

Have an executive summary

This should capture the vision and goals that a Strategy is designed to deliver, the rationale for the work proposed, and how the vision will be delivered.

Integrate visuals throughout the document

Visuals can be more explanatory than words and can include maps, photographs and diagrams used in conjunction with each other.

Highlight key statements

Ensure key statements (eg statements of priorities or main actions proposed) are clearly differentiated.

Number actions

Ensure that all actions listed in the main body of the document and in the **SMART** action plan are numbered, so that they can easily be referred to.



Place specific strategies of varying scales and aims

The Stonehouse Community Arboretum Management Plan: A tree and woodland strategy for Stonehouse (2021)⁶

The aim was to produce an “*overarching strategy which regards the urban forest collectively and coordinates its management in line with best practice and the wants and needs of the community*”.

Tree Strategy, Braintree District Council (2016)⁷

A comprehensive approach to the management and maintenance of trees by firstly, providing a policy framework, and secondly offering practical guidance for the protection and management of trees.

An Urban Forest Masterplan for Birmingham: 2021-2051⁸

This was driven by the community (Birmingham TreePeople) and supported by the city council. One clear driver for the plan is to redress the imbalance between low canopy cover and areas of social deprivation.

All Our Trees: Greater Manchester’s Tree and Woodland Strategy⁹

This strategy includes a useful series of maps identifying tree planting opportunities in response to a range of priorities

Flintshire Urban Tree and Woodland Plan 2018-2033¹⁰

“*An overarching strategy unashamedly promoting trees as a public asset and focuses on a range of objectives that the Council have embraced, with the aim of achieving the long-term canopy cover target.*”

Belfast Tree Strategy¹¹

“*Our key vision for this Tree Strategy is that we focus our attention and resources on protecting, enhancing, and expanding our woodlands, hedges and trees and we want to connect people to nature, ensuring that these major assets are enjoyed and valued by everyone who lives, works and visits our city.*”
This is the Council’s first Tree Strategy prompted by the clear need to have one to future proof and protect existing trees and also to link in with the Council’s One Million Trees planting campaign and the real threat of climate change. Feedback from the Public Consultation Exercise will be included in the final Tree Strategy draft along with ongoing work on the action plan.

Forestry and Woodland Strategy for the Glasgow City Region 2020¹²

“*The aim of The Strategy is to guide woodland expansion and management of woodlands in the Clydeplan area providing a policy and spatial framework to optimise the benefits for the local economy, communities and the environment*” throughout the region in rural, peri-urban and urban areas.



⁶ See: <https://www.stonehousetowncouncil.gov.uk/wp-content/uploads/2021/10/SCAMP-Final-031021.pdf>

⁷ See: https://www.braintree.gov.uk/directory-record/1059667/bdc067-tree-strategy-march-2016_

⁸ See: <http://birminghamtreepeople.org.uk/birminghams-urban-forest-master-plan/>

⁹ See: https://www.cityoftrees.org.uk/sites/default/files/8082_All_our_trees_report_Dr8_MW.pdf

¹⁰ See: <https://www.flintshire.gov.uk/en/PDFFiles/Countryside--Coast/Tree/Tree-Plan.pdf>

¹¹ See: <https://www.belfastcity.gov.uk/Documents/Belfast-tree-strategy>

¹² See: <https://glasgowcityregion.co.uk/forestry-and-woodland-strategy-launched/#:~:text=A%20new%20Forestry%20and%20Woodland,9%2C000%20hectares%20could%20be%20planted>

Section Two:
Planning the urban forest: how to develop a Strategy that delivers

The six
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➤ Propose

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Monitor

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One



Lime Tree Court, Street, Somerset is phase one of a housing development designed to provide “an harmonious ‘shared space’ environment to create a sense of place and belonging.” A range of landscape strategies including a robust tree strategy, delivered street trees with street tables and benches, orchards, a linear park and pocket parks successfully integrating the built and natural environment for both people and biodiversity. Landscape Architects: Grant Associates. Architects: Feilden Clegg Bradley Studios Photo: © Michael Gove

i **3-30-300 is a rule for putting urban forests and nature at the heart of our towns and cities**

This is not a prescription but a way of raising the understanding of the role of nature based solutions at scale ie trees, canopy cover and green space. A robust Strategy can help achieve a high level of ambition to benefit both people and place.



Natural England's **Green Infrastructure Framework (GIF)** aimed at planners and developers provides a tool to analyse where greenspace in urban environments is needed most - parks, green roofs, increase tree cover.

Promoting health and wellbeing through urban forests - Introducing the 3-30-300 rule. Cecil Konijnendijk, Nature Based Solutions Institute. <https://nbsi.eu/the-3-30-300-rule/>

i Learning from history – how an ecological landscape approach delivered long-term multiple benefits in Oakwood, Warrington New Town

In 1975 Oakwood, a district in Warrington New Town within the Birchwood area, benefitted from the ecological landscape approach by its Deputy Chief Landscape Architect, Robert Tregay. The key seems to be a clear common cause by both the authority and the community to deliver quality of life for both people and place which is still beneficial today.

The first trees were planted in 1977 and the long-term benefits of what was undertaken then can be seen today, and the canopy cover is at least 30%.

As Professor Robert Tregay explains:

“Tree planting was a key part of the philosophy, developing linked woodland belts for shelter, biodiversity, children’s play, nature experience, footpath linkage and spatial definition, enclosing ‘cells’ of housing development. Community engagement and school projects were a key part of the process.”



Oakwood in 2018.
Photos: © John Briggs

2.4 Strategy elements

These are for guidance only and will vary from place to place and for different landowners. While some of the details are specifically intended for local authorities, most will apply to all landowners.



Propose



Goals

The aim is to write a Strategy that is concise, accessible, and clear, continuing to ensure that all stakeholders concerned are fully committed to delivering the actions identified.

Actions

- 1) Read key local documents and discuss with colleagues.
- 2) If required, compile evidence why a Strategy is needed.
- 3) Define the purpose and scope of a Strategy.
- 4) Secure the necessary support.
- 5) Define a draft management structure for producing a Strategy.
- 6) Scope out the resources for preparing a Strategy.
- 7) Capture conclusions in a draft scoping report.

Outputs

- Draft scoping report.
- Strategy development written into the relevant service plans.

Actions

Action 1: Read key local documents and discuss with colleagues

A landowner's priorities, concerns and key decision-makers lead the thought process which may not, initially, be directly related to trees.

A local authority or other landowner should identify key local policy documents and map out the needs and objectives prioritised for the relevant area. Reviewing the Corporate Plan alongside budget allocations across key work programmes is a start.

Hold early discussions with colleagues and relevant stakeholders to identify:

- The purpose and range of potential outcomes for a Strategy to secure wide support.
- Potential major initiatives to which a Strategy can be added. Associating a Strategy with a politically and financially well-supported initiative, such as a public realm project, can unlock access to funding.
- Where strengths already exist such as people with experience in securing external funding, existing community networks, and relevant available data.

It is crucial for these discussions to extend beyond the internal stakeholders traditionally involved in [urban forest](#) management.

Action 2: If required, compile evidence why a Strategy is needed

To convince others about the need for developing a Strategy, use the discussions above to collate evidence on the benefits of having a Strategy. Consider:

a) *The positive impact an enhanced urban forest will have on delivering objectives.*

Articulate how a Strategy fits with key priorities and expanded work programme. Tap into the document review and interview findings from above, paying attention to the vocabulary and narratives used. A similar language should be found in the case for having a Strategy. This will also provide a key foundation to develop the vision and goals underpinning a Strategy (see the [Vision](#) element).

b) *The costs associated with any current, more ad-hoc, reactive and siloed approach.* This might be articulated in terms of:

- Wasted staff time.
- Possible growing discontent from the local community.
- Reputational impacts for the area.
- Increased vulnerability to major disasters eg storms, pests and pathogens. Being caught unprepared could lead to the need for extensive tree removal.
- Increased vulnerability to successful claims against trees.
- Missed opportunities to secure additional funding.

c) *The negative impacts the loss or the degradation of the tree population could have on local communities and other priorities.*

- Quantify such impacts to the greatest extent possible, considering:
- Potential canopy cover loss with impacts on the urban heat island effect and likely increased premature deaths of trees?¹³
 - The potential depreciation of the asset value of the tree stock over time resulting from a sustained lack of tree planting, or extensive tree loss to pests or diseases. The supporting evidence can be produced using valuation tools such as the CAVAT¹⁴ method or i-Tree Eco applied to available public tree inventory data, or a smaller data sample collected simply for this purpose.

Action 3: Define the purpose and scope of a Strategy

It is crucial to understand:

- *The types of trees and vegetation a Strategy will address.*

Decide how woodlands, [hedges](#), or shrubs will be included in a Strategy's scope.

- *The geographical area a Strategy will focus on.*

A good Strategy will refer to the wider environment, landscape character, potential impact of climate change and raise other concerns or issues to be taken into account.

- *The timescale a Strategy will cover.*

A Strategy would be expected to have more detail for action in the shorter term, perhaps five years ahead, but regularly updating towards the 30-year mark and beyond.

- *How a Strategy will link to other strategies and plans.*

To be truly effective, a Strategy needs to be incorporated into the wider policy and Strategy framework of the local authority



¹³ T Donovan, GH, Butry, DT, Michael, YL, Prestemon, JP, Liebhold, AM, Gatzliolis, D and Mao, MY (2013). *The Relationship Between Trees and Human Health: Evidence from the Spread of the Emerald Ash Borer.* American Journal of Preventive Medicine, 44, 139- 145

¹⁴ CAVAT Full Method (2023). <https://ltoa.org.uk/resources/cavat>

or landowner. For local authorities it may also provide the rationale for more detailed policies or plans such as a [Supplementary Planning Document \(SPD\)](#) on Trees and Development or a Local Nature Recovery Strategy.

Action 4: Secure the necessary support

Senior executive and, in the case of local authorities, elected member support is central to long-term success.

Executive support will ensure that a Strategy's development work is written into the relevant service plans, setting out what each service area will deliver in the coming year and so help when a wide range of officers in the council input into the work.

For a local authority obtain cross-party support. Finalising a Strategy requires political decisions, and early support from elected members will help reduce indecision and delay adoption. Cross-party support will also help ensure a Strategy receives continued support post-adoption to deliver decades-long results.

Action 5: Define a draft management structure for producing a Strategy

The development of a Strategy will be overseen by a steering group, with a chair and a lead staff member:

- The role of a steering group is to promote, guide and help remove obstacles to the development of a Strategy.
- The lead staff member has the responsibility to manage the day-to-day progress of a Strategy and should be assisted by a working group bringing together the competencies and skills needed for its development. Commissioning outside consultants can be beneficial for advising, facilitating and bringing extra capacity for Strategy development. This is further detailed in Action 7 below.

An effective steering group should feature those who can influence the outcome. For local authorities make sure the selection includes:

- *The key council stakeholder groups that are likely to be most impacted.* However removed they may have been in the past to addressing tree-related objectives or issues, this should include representatives from both planning and highways, with support

at director level (see Action 4 above). Contributions from other departments will also be needed, and might include: parks and open space, public health, economic development, **ecology** and nature conservation and housing. By creating a space for an informed and multi-disciplinary dialogue over a sustained period of time, a Strategy development process will be a useful tool to win over such stakeholders and identify better ways of working together.

- *The key stakeholders whose support will be needed eg funders, suppliers, major landowners, or community organisations.* Deliverability is a central consideration that needs to inform, not just the **SMART** action plan, but also the whole content of a Strategy. Involving key potential funders and delivery partners in the steering group is the best way to ensure it is effective and can deliver.
- *In the absence of a consultant, an external 'critical friend' with relevant expertise can be useful.* Whom best to fulfill that role will depend on the make-up of the working party and on the priorities a Strategy pursues. Possible profiles include academics and not-for-profits.

Action 6: Scope out the resources for preparing a Strategy

At the outset consider the availability of skills and identify who should be involved. A Strategy will be stronger if it is developed by a multi-disciplinary team and reflects the multiple aims and objectives of stakeholders, and can be useful to build key relationships with other departments beyond the 'green teams' in local authorities.

It will also be useful for the working party to be able to call upon expertise and time in the the following areas:

- Geographic Information Systems and data analysis.
- Graphic design.
- Communication.
- Consultation and community engagement.

Many of the skills and subject experts needed for the working party will come from within the local authority or landowner's organisation, but some might need to be brought from the outside, through commissioning consultants. This might be for specific tasks, such

as data analysis, or community engagement. Consultants might be given a more comprehensive brief to take charge of a Strategy preparation. In this scenario, facilitation skills will be key: a central part of the work will be to elicit information and engagement from different council departments and wider stakeholders.

Consultants will need a detailed brief and sufficient time to complete the work. They should report regularly on progress to the lead local authority officer and, depending on the scope of their engagement, participate in or facilitate working party discussions.

Action 7: Capture conclusions in a draft scoping report

A scoping report should capture:

- The landowner's key strategic priorities that a Strategy can help deliver, and the specific outcomes to which it should contribute.
- The scope of a Strategy: eg type of vegetation included, geographical area covered, or timescale addressed and relationship to existing planned key policies and plans.
- The management structure for producing a Strategy.
- An overview of the key resources needed.
- A timetable and budget for preparing a Strategy (detailed workplan, timetable and budget to be finalised in the **Prepare** element).



A strategic approach by the White Rose Forest's Green Streets Programme envisages communities where main roads are tree-lined, groves of trees inhabit urban spaces, and cycling and walking routes link through parks and ecological corridors improving the environment for both people and nature. Newly pedestrianised Cookridge Street, Leeds. © Alan Simson

Prepare



Goals

Finalise the planning of people, actions, data, resources and process needed to see a Strategy development through to adoption and launch.

Actions

- 1) Define data needs and sources.
- 2) Define an engagement and communication approach.
- 3) Refine the composition of the steering group and working party.
- 4) Finalise the budget and work programme.
- 5) Update the scoping report.



Outputs

Final scoping report with:

- Purpose of a Strategy and fit with other key plans.
- Management structure.
- Data analysis method statement.
- Stakeholders' engagement Strategy.
- Detailed work programme.
- Budget.

Actions

Action 1: Define data needs and sources

The tables below make some recommendations on data. Data collection should focus on the strategic priorities identified in the **Propose** element to develop a relevant Strategy for local needs. If, for example, delivering new quality housing is a key priority, a Strategy should support this. Alternatively, if a key priority is to increase resilience to climate change and there is public **tree population** that is ageing and/or dependent on a single or very few **species**, the data collected could illustrate future scenarios if no action is taken.

Overall, there are three key things data will be needed for:

1. Understanding the context, challenges, opportunities and priorities.
2. Communicating an appropriate and relevant case for the local authority or landowner's organisation and the wider range of stakeholders to engage in the delivery of a Strategy.
3. Creating a foundation to set goals and benchmarks against, and then monitoring and reviewing progress of implementation.

Review the advice and different data profiles described in the following tables.

The Indicators in the [Appendix](#) will assist in this process.

Data on the local tree population

Canopy cover	<ul style="list-style-type: none"> - Dataset with enough granularity to enable analysis at a Strategy's area and land use scales. - If no canopy data of sufficient quality is available and resources are limited, i-Tree Canopy survey offers a fast and cost-effective solution, and enables future comparison. - In England, ward level canopy cover data is available for some towns and cities on a dedicated Forest Research¹⁵ mapping portal. - Wales tree canopy cover data collected in 2013 (updated since) for all towns and cities¹⁶. - Refer to Indicators T1 and R5 in the Appendix.
Publicly-owned trees location	<ul style="list-style-type: none"> - Borough-wide dataset geolocating all council-owned trees, linked to tree population structure data below and management data.
Privately owned trees location	<ul style="list-style-type: none"> - There are various organisations offering tree mapping services if required. The information on the row below should be part of the data collection for privately owned trees.
Tree population structure: - Age or size class - Species composition - Suitability - Condition - Risk	<ul style="list-style-type: none"> - Available and relevant area data, for all public and/or privately owned trees as required. - Whenever possible, sample-based data collection methods such as i-Tree Eco should be used to expand the population structure analysis to the whole local tree population. - Refer to Indicators T2-T5, R1 and R3 in the Appendix.
Ecosystems services	<ul style="list-style-type: none"> - Available and relevant area data for all public and/or privately owned trees as required. - Calculated from a computation of the tree population structure data using tools such as i-Tree Eco. - As for population structure, whenever possible such data should be obtained for the whole tree population. - Refer to Indicators R1 and R3 in the Appendix.
Structural (ie replacement cost) value	<ul style="list-style-type: none"> - Available borough-wide data, less than five years old for all public and/or private trees as required. - Calculated from the tree population structure data using methods such as the CTLA. - Refer to Indicators R1 and R3 in the Appendix.



¹⁵ UK Urban Canopy Cover. <https://www.forestresearch.gov.uk/research/i-tree-eco/uk-urban-canopy-cover/>

¹⁶ Wales Canopy Cover. <https://naturalresources.wales/media/680678/revISED-english-wales-urban-canopy.pdf>

Amenity value	<ul style="list-style-type: none"> - Available and relevant area data for all public and/or privately owned trees as required. - Calculated from the tree population structure data using methods such as CAVAT. - Refer to Indicators R1 and R3 in the Appendix.
Woodlands	<ul style="list-style-type: none"> - Refer to Indicator R2 in the Appendix.
Hedgerows	<ul style="list-style-type: none"> - Refer to Indicator R4 in the Appendix.

To avoid adverse surprises, secure samples of all available datasets to test how much work will be needed for data analysis. While different departments might be storing similar information, recording methods may vary. For example, one dataset might feature actual **Diameter at Breast Height (DBH)** measurements, while another might record DBH classes. Such inconsistencies will create obstacles to data aggregation.

If information about the current local **tree population** is absent or limited, the Indicators R1-R4 in the [Appendix](#) will help to prioritise the data needed.

Data on tree management

Prevalence of significant pruning	<ul style="list-style-type: none"> - Focused to provide insight into the level of incidence of pollards/cyclical pruning and purpose for so doing.
Prevalence of planned work versus responsive work	<ul style="list-style-type: none"> - Focused to provide insight into how management time is spent.
Tree-related insurance claims	<ul style="list-style-type: none"> - Focused to provide insight into the incidence and types of claims as well as success rates.

Vacant tree pits	<ul style="list-style-type: none"> - Focused on public realm to provide insight into immediate tree planting potential.
Protected tree removals	<ul style="list-style-type: none"> - This will help to better understand whether existing policies and processes in places to secure the preservation of valuable trees work well.
Rate of tree removals and plantings	<ul style="list-style-type: none"> - Focused on local authority owned trees.
Trees in development outcomes: <ul style="list-style-type: none"> - Impact on canopy cover level - Canopy cover losses to unauthorised tree removal - Canopy cover losses to authorised tree removal - Survival rate of tree planting agreed by planning conditions 	<ul style="list-style-type: none"> - To be collected on a sample basis in areas where trees in new developments are a sensitive issue. Sample to include development completed since at least three years (ie once the landscape warranty has come to an end). - Such an evidence base will facilitate informed discussions with colleagues from the planning team and local planning committee members on any changes that might need to be made to local development management policies related to trees and/or their enforcement.

Data on context and constraints

Underlying geology, hydrology and soils	<ul style="list-style-type: none"> - Especially important/relevant in areas with subsidence-prone areas.
Local existing climate	<ul style="list-style-type: none"> - If significant variations are present in the area, these should be understood.
Anticipated climate changes resulting from global warming	<ul style="list-style-type: none"> - For the relevant area under the different climate scenarios for 2050 and 2080, identify which city or region around the world currently has a similar impact.
Landscape character and history of the local tree population	<ul style="list-style-type: none"> - Knowing the history of the local tree resource and its relationship to the area's landscape character will help better understand its current conditions as well as its cultural or ecological significance. This, in turn, will help make better decisions about future management.

Data on needs and opportunities

Multiple sources should be used to identify the need or opportunity for increased canopy cover, combining objective and subjective sources eg local people’s views and perceptions. Objective sources to be used include:

Census data including: - Population density - Density of population more vulnerable to the impacts of heat waves (ie young and elderly people) - Proportion of ethnic minorities	This information will be used at ward level, lower layer super output area (LSOA) level (England, and Wales), data zone level (Scotland) or super output area level (Northern Ireland) - depending on availability.
Deprivation data	As above. Refer to the national indices of deprivations produced by country and to the associated Index of Multiple Deprivation.
Surface temperature data	Location of urban heat islands.
Surface water flooding data	Detailed maps of flooding risks associated to surface water are available across the UK.
Housing allocation data	Location and anticipated population densities per site.
Sustainable travel routes	Location of existing and planned 20mph streets, main cycle routes, and main public transport routes eg routes with high level of service.
Planting opportunities	Anticipated location of capital projects providing opportunities for tree planting (eg relaying service mains, introducing traffic calming, closing ‘rat runs’, reducing on-street car parking, or introducing new pedestrian crossings). Opportunities for open space enhancements.

To gather information on people’s views of the local **urban forest** and its management, consider using focus groups, or, to reach a wider audience, including social media and online polling tools. Where no tree-specific data is available and resources are not available to

acquire it, it might still be possible to make use of findings from past surveys and public consultations on other plans related to the future of the area, which might have tackled relevant issues such as desire for greenness, or access to wildlife.

Action 2: Define an engagement and communication approach

Engagement and communication with key stakeholders and the wider community at appropriate stages of a Strategy process is vital.

Stakeholders can be mapped onto a spectrum ranging from those helping to steer the project to those simply being kept informed. As a project progresses, stakeholders may naturally move along this spectrum. This process is normal and requires on-going mindful management (see Action 3 below).

The International Association for Public Participation (IAP2) has developed a spectrum to assist with the selection of the level of participation in a community engagement programme. The spectrum shows that differing levels of participation are legitimate depending on the goals, timeframes, resources, expectations and levels of concerns in the decisions to be made.

Key stakeholders will broadly fall within the four following profiles whether public or private bodies:

Elected members and organisational members

In the case of local authorities, elected members of all parties are crucial stakeholders – especially committee chairs and councillors from wards where tree deprivation is a concern. Without the enthusiastic support of elected members from all parties a Strategy will fail to realise its potential. Opportunities to engage members, include:

- Appointing one or two political ‘project champions’ for a Strategy development (see the **Propose** element, Action 5), that take part in the steering group.
- Inviting members’ participation to the initial visioning workshop (see Action 5 below), and to the workshop held to identify issues, opportunities and priorities for action (see the **Vision** element, Action 1).

– Reporting to the relevant committees on the progress in developing a Strategy.

Internal colleagues

Consider one-to-one meetings with individuals (eg head of planning enforcement, head of highways maintenance) and also small cross-disciplinary workshops to discuss key issues, desirable changes and possible actions.

Institutional stakeholders

Consultees may include government agencies, neighbouring and regional authorities, institutional landlords, other large landowners, key national tree and nature charities, local green industries, and other partners.

Local communities

Engage with local tree and nature groups (eg tree wardens, friends of parks), neighbourhood forums, parishes or community councils, other significant landowners and the local business community. Discuss the community input process with the council's consultation and inclusion lead.

There are significant benefits to having a planned, ongoing, inclusive approach to community engagement. Approaches, methods, and marketing messages must be realistic and timed appropriately. An engagement plan and timetable should consider other council processes and policies eg the statement of community involvement produced to accompany the Local Plan.

Key stages for community engagement could include:

- An announcement of the intention to produce a Strategy.
- A visioning workshop.
- An assessment of demand and need.
- Identification of key issues and objectives.
- Review of the draft Strategy.

Action 3: Refine the composition of the steering group and working party

The planning and consultation work conducted so far might reveal

stakeholders that ought to be more closely involved. It is important to take stock of this and make any changes to the composition of the steering group or working party that might be needed.

Action 4: Finalise the budget and work programme

Once the approaches to consultation as well as to data collection and analysis have been defined, a more refined budget can be prepared alongside a detailed work programme.

Action 5: Update the scoping report

Some terms of reference capturing why and how a Strategy will be developed is very useful to brief others on the project. The scoping report described in this guide is intended to serve that purpose.



Having the data will show where more tree cover is needed. Blaenavon, Wales, has 20% cover, but note the contrasting treeless areas of terraced housing and the wooded surrounds to the church and ex-mine owner's property on the right hand side of the photo.

© Crown Copyright: RCAHMW

Context



Goals

Develop a compelling evidence base for a Strategy.

Actions

- 1) Analyse the local historic, landscape and environmental context.
- 2) Assess existing provision and needs for canopy cover.
- 3) Assess the local tree population structure, ecosystems services and value.
- 4) Assess specific typologies – trees of special interest, street trees, woodland and hedges (depending on scope).
- 5) Assess the community setting and the current management approach.
- 6) Capture findings in a technical evidence based report.
- 7) Translate the report into a compelling narrative.

Outputs

- Compelling technical report conveying an evidenced understanding of:
 - The sustainability of the local urban forest.
 - The context, constraints and needs that future management ought to respond to.

Actions

Action 1: Analyse the local historic, landscape and environmental context

The history of the urban forest within the landscape character

Questions to consider include:

- Are there any types of trees, woodlands or **hedgerows** which contribute to significant local habitats and landscape character? How has this changed over time?
- Are there heritage trees, ie trees that are special for scientific or cultural reasons, to be identified, protected, and retained?
- How have historical practices and past developments affected the extent and composition of the current **urban forest**?
- Based on how the urban forest has developed over time what future management issues can be anticipated eg over use of certain tree **species**? For a treescape character map¹⁷ this information is worth capturing.
- Is there a history of community stewardship of trees?

Environmental constraints

Questions to consider include:

- What are the soil types and how could they limit urban forest development and management?
- Are shrinkable clay soils present in land allocated for new development? If so, adequate foundation design should be required in development management policies.
- Do climate factors change over the study area eg minimum and maximum temperatures, elevation and exposure, prevalence of wind, fog or seaborne influences? If so, identify zones for tree selection and maintenance.
- How is climate change expected to affect average annual precipitation and temperature extremes? Which region/city provides a good current reference for the anticipated climate?
- Are there invasive non-native species of concern in the study area and how could they limit urban forest development and management?

Action 2: Assess existing provision and needs for canopy cover

Existing canopy cover

Questions to consider include:

- How much of the study area is covered by trees?
- How does this compare with other areas with a similar profile?
- How does it vary across wards?
- How is it distributed between publicly-owned accessible land and private land?
- Are the levels in parts of the study area at or near maximum sustainable levels? If so, should these levels be used to set targets?

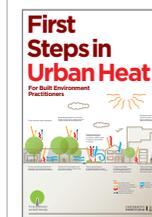
Canopy cover needs

The overarching questions to consider are:

- Where are trees most needed to meet local objectives?
- How do we ensure that, regardless of numeric targets, trees are planted and established where the benefits they deliver are most needed?

Further areas of analysis to consider could include

- **Equity:** Are trees and greenspace equitably distributed across the area? See Natural England's **GI Framework**¹⁸ and consider adapting the Tree Equity Score methodology¹⁹ developed by American Forests.
- **Biodiversity:** Do trees already contribute to nature recovery corridors/hotspots? Are there areas where increased canopy cover and landscape layers can further contribute? Are there areas where canopy cover is a hinderance?
- **Public health:** Is canopy cover equitably distributed in areas featuring high concentrations of people suffering ill health which may be exacerbated by poor environmental conditions? Do hospitals and other care facilities have good access to canopy cover?
- **Education:** At neighbourhood level, are there associations between areas with low GCSEs achievement and low canopy cover? How much of local school grounds are covered by trees?
- **Urban Heat Islands:** Which areas would most benefit from increased microclimate regulation from trees? See right *First Steps in Urban Heat*.
- **Surface flooding:** Which areas would benefit most from the use of trees to reduce surface flooding?



TDAG's guide overviews the sources and circulation of heat within our urban areas, including the cooling benefits provided by green infrastructure, and other cooling solutions.



¹⁷ Oxfordshire Treescape Project has useful guidance and mapping examples. <https://www.naturerecovery.ox.ac.uk/wp-content/uploads/2023/01/Our-Land-Our-Future.pdf>
Landscape character database. <https://www.landscapeinstitute.org/news/the-landscape-character-database-for-the-uk-and-ireland-is-now-available/>

¹⁸ See: <https://designatedsites.naturalengland.org.uk/GreenInfrastructure/Home.aspx>

¹⁹ See: <https://www.treeequityscore.org/methodology/>

Comparing canopy cover in places with similar demographics using Friends of the Earth's mapping English tree cover project²⁰

This Friends of the Earth project is aimed at identifying woodland opportunities in England. It provides current canopy cover assessments for a wide range of rural and urban locations.

Two commuter towns within a similar distance to London and similar demographics were selected and the impact of different levels of canopy cover (over twice as much) was compared.

Chelmsford, CM1 (2021)

Population	181,763
Average salary	£35,320.00
Average house price	£420,264.00

Canopy cover **13.6%**



■ Existing trees
 ■ Woodland opportunity

Woking, GU21 (2021)

Population	178,169
Average salary	£44,482.00
Average house price	£511,127.00

Canopy cover **30.8%**



■ Existing trees
 ■ Woodland opportunity



Example location found within the Chelmsford, CM1 area.
 © instantstreetview.com



Example location found within the Woking, GU21 area.
 © instantstreetview.com



²⁰ Friends of the Earth:
 Entry level content.
<https://friendsoftheearth.uk/nature/trees-map-where-could-we-create-woodland-england>
 Technical content.
<https://policy.friendsoftheearth.uk/insight/mapping-english-tree-cover-results-ranking-and-methodology>
 Local statistics.
<https://www.varbes.com/local-statistics/blaby-local-statistics>

- **Sustainable mobility:** What percent of the 20mph street network is planted with trees on at least one side? How much of the existing/planned cycle routes and/or key bus routes are planted with trees on at least one side?
- **Economic regeneration:** Are areas earmarked for regeneration well served in tree canopy?

Action 3: Assess the local tree population structure, ecosystems services and value

Questions to consider include:

- Are the long-term sustainability areas of tree canopy at risk from a lack of age or **species** diversity or suitability to anticipated climate? Are some wards more vulnerable than others?
- To which pests and pathogens is the local **urban forest** most vulnerable? What is the possible impact on tree canopy cover?
- What are the structural (eg replacement cost) and public amenity values of the local **tree population**? Are the species with highest replacement value the same as those achieving highest public amenity value? Are there small segments of the local tree population that warrant special care?
- How many measurable **ecosystem** services does the local tree population provide? In a local context, what's the significance of these figures?

This analysis is worth conducting both at population scale and on specific segments of the local tree population eg street trees, parks trees, housing trees. For some street trees, it is highly desirable to refine the analysis at ward scale to ensure street tree planting is based on a robust understanding of needs.

Action 4: Assess specific typologies – trees of special interest, street trees, woodland and hedges (depending on scope)

Ancient, veteran, and other trees of special interest

Questions to consider include:

- How much of the local population of ancient and veteran trees is in private ownership? How many are protected?
- How much of the local population of ancient and veteran trees found on council-owned land is accessible to the public?
- How are trees of special interest distributed?

Woodlands

Questions to consider include:

- What is the extent of local woodland cover? How does it compare to nearby councils and is it stable, increasing or diminishing?
- What are the main types found in the local area?
- Are there connecting green links to surrounding urban and rural areas supporting the **Nature Recovery Network (NRN)**²¹?
- Are some segments of the woodland cover particularly vulnerable from lack of species diversity, poor suitability to anticipated climate changes, or susceptibility to pests and pathogens?
- What is known about the benefits the local woodlands provide eg timber production, **biodiversity**, natural flood risks management, amenity value or carbon sequestration and storage?
- Are there areas where an increase in cover is needed to contribute to the NRN or flood risk management?
- How many local residents do not have access to woodlands? Where is there a need to increase woodlands to address existing accessibility gaps? How will anticipated new housing developments affect this situation?
- The Climate Change Committee (CCC) advised that tree planting rates of at least 30,000 hectares per year will be required for the UK to reach net-zero greenhouse gas emissions (GHG) by the year 2050²². If the area were to adopt a planting target proportional to its share of national greenhouse gas emissions (ktCO₂ equivalent)²³, how much woodland creation would need to take place?

Hedgerows

Questions to consider include:

- What is the extent of the local (known) network of **hedgerows**?
- What are the main types found in the area?
- Do the primarily rural hedgerows connect into urban areas?
- How do existing hedgerows contribute to the NRN? Is there a need to expand them to enhance this Network?
- Are existing hedgerows and **shelterbelts** likely to help reduce soil erosion, nutrient runoff and stormwater runoff? Is there a need to expand them when planted on contour lines to protect downstream areas suffering from flash floods?
- How are anticipated new developments expected to affect existing species-rich hedgerows?



²¹ Nature Recovery Network (2022) Natural England. <https://www.gov.uk/government/publications/nature-recovery-network/nature-recovery-network>

²² Climate Change Committee, 2019. Net Zero- The UK's contribution to stopping global warming. www.theccc.org.uk/wp-content/uploads/2019/05/Net-Zero-The-UKs-contribution-to-stopping-global-warming.pdf

²³ For UK local authority and regional carbon dioxide emissions national statistics. www.gov.uk/government/collections/uk-local-authority-and-regional-carbon-dioxide-emissions-national-statistics

For UK national greenhouse gas emission national statistics. www.gov.uk/government/collections/uk-territorial-greenhouse-gas-emissions-national-statistics

– The CCC have advised that hedgerows will need to be increased by 40% for the UK to reach net-zero GHGs by the year 2050²⁴. If the area were to adopt a planting target proportional to its share of national GHGs (ktCO₂ equivalent)²⁵ how much hedgerow creation would need to take place? Where would it be relevant and possible for such plantings to take place?

Action 5: Assess the community setting and the current management approach

Community setting

Examining how the local area performs on Indicators C1-C6 in the [Appendix](#) provides a simple starting point to assess the degree of involvement and collaboration of local stakeholders around trees. Such assessment can be further refined and used for discussions on key issues and priorities for action in the [Vision](#) element.

Refer to the criteria set out under each Indicator to determine current levels of performance around:

- Cross-departmental collaboration.
- Utilities’ cooperation.
- Developers’ cooperation.
- Green industry cooperation.
- Involvement of large private and institutional landowners.
- Residents’ involvement and neighbourhood action.
- General appreciation of trees as a community resource.
- Cross-boundary collaboration.

Management approach

Examining how the local area performs on Indicators R1-R19 in the [Appendix](#) provides a simple starting point to assess the data, policies and practices shaping how an [urban forest](#) is looked after.

Refer to the criteria set out under each Indicator to determine current levels of performance around:

- Data/knowledge of the tree resource.
- Planning and resources mobilised for the tree resource.
- Use of the benefits the tree resource can provide.
- Practices associated with:
 - the establishment of new trees.

- tree protection.
- other on-going management.

Using the management data collected as part of the [Prepare](#) element, further questions may include:

- Is the approach to and extent of council’s tree pruning aligned with the canopy cover ambitions pursued for the area?
- How many protected trees are removed per year? How has this number changed overtime?
- Are current rates of public tree plantings sufficient compensation for canopy losses due to public tree removal within the next 15 years?

Action 6: Capture findings in a technical evidence based report

Data is most valuable in putting forward a compelling case, conveying important points and shaping future decisions.

As data is produced, it is critical to reflect on key findings as well as the best ways to turn raw information into visuals and references that people can easily understand.

Prioritise these findings in a technical report providing the evidence base for a Strategy. Reference details for key finding.

Action 7: Translate the report into a compelling narrative

Working with data is all about capturing a story, so use this in an engaging way.



²⁴ Climate Change Committee, 2019. Net Zero- The UK’s contribution to stopping global warming. www.theccc.org.uk/wp-content/uploads/2019/05/Net-Zero-The-UKs-contribution-to-stopping-global-warming.pdf

²⁵ For UK local authority and regional carbon dioxide emissions national statistics. www.gov.uk/government/collections/uk-local-authority-and-regional-carbon-dioxide-emissions-national-statistics.

For UK national greenhouse gas emission national statistics. www.gov.uk/government/collections/uk-territorial-greenhouse-gas-emissions-national-statistics

Vision



Goals

Produce a shared vision for the future of the local urban forest supported by clear goals, objectives and targets.

Actions

- 1) Run stakeholder workshops.
- 2) Invest in one-to-one key stakeholder discussions.
- 3) Develop a draft vision.
- 4) Develop some draft goals, objectives, targets and a timeline.
- 5) Capture it all in an interim report and consult further.

Outputs

Interim report featuring:
- Draft vision statement.
- Draft goals and objectives.
- Draft targets on a timeline.
- Key actions.

Actions

Action 1: Run stakeholder workshops

Once the assessments in the **Context** element are underway, stakeholder workshops can be held with the aim to:

- Share and invite reactions on emerging findings from the assessment.
- Discuss key benefits, issues and opportunities associated with the local **urban forest**.
- Explore attendees' vision for the future.
- Develop and/or refine ideas on 'How do we do it?'

As a starting point, this guide recommends having at least one 'visioning' and one 'how to' workshop, with attendance depending on local resources and time available.

For the initial 'visioning' workshop(s), mixing internal and external stakeholders is desirable for a wider diversity of viewpoints.

Once discussions shift to 'How do we do it?', there are advantages in having dedicated events for:

- Internal stakeholders, to allow freer discussions and exchanges around resource commitments.
- Relevant external stakeholders, to work out their priorities and willingness to contribute to actions with any implications to which the council should respond.

Action 2: Invest in one-to-one key stakeholder discussions

Allowing time for one-to-one discussions on key issues and strategic opportunities is essential to ensure the quality and effectiveness of a Strategy. The best individuals to include are:

- Planning policy and development management specialists, working out the planning policy position the council is willing to adopt and how to deliver it effectively. This will require in-depth discussions.
- Stakeholders on whom the implementation of the plan is most dependent.
- Workshop participants who have put forward interesting new ideas to be further explored.
- Workshop participants who have strong objections.

Action 3: Develop a draft vision

The vision is a statement of aspiration that defines what the future will look like. Having a clear vision for an urban forest is important, but even more important is developing this vision through collaboration. Giving people a sense of involvement, agreement and ownership will also enable a smoother progression for identifying specific aims and key objectives.

To develop a vision statement, this guide recommends:

- Starting with engagement, including one or several 'visioning' workshops (see Action 1 above), and, if resources allow, a public consultation survey.
- Once some ideas have been collected through stakeholder engagement and key findings from the data analysis have become available (see the **Context** element) it is useful for the person leading a Strategy development to draft a preliminary vision statement.
- The working group is invited to produce their own visions to compare with the pre-drafted one as an option for improvement.
- The vision should be aligned to the other strategy and policy documents.

Action 4: Develop some draft goals, objectives, targets and a timeline

The 'vision' should be supported by goals and objectives. In this guide 'goals' are defined as 'proposed outputs' (ie 'result statements') while 'objectives' are the key areas of work necessary for the 'vision' and 'goals' to be delivered (ie 'action statements').

To progress this work, consider:

- Running one or several 'How do we do it?' workshop(s) (see Action 1) where a range of possible goals based on data, priorities and benefits are proposed and agreed, alongside initial objectives to fulfill these goals. At the same time it is useful to qualify the agreed objectives as 'achievable', 'ambitious', or 'challenging' to give a sense of what to tackle when and how to manage expectations.
- Having some smaller sessions with relevant members of the working group around individual goals and the associated objectives.

These latter sessions will aim to:

- Ensure the goals and objectives of other relevant key council strategies are adequately considered, cross-referenced or integrated, as appropriate.
- Define with targets, ie add numbers to the draft goals and objectives articulating how much and by when.
- Break objectives down into smaller, more manageable stages of work that will form the basis of the **SMART** action plan.
- Place the targets identified on a timeline, that can help map out the way forward in simple terms for other stakeholders.

Some of the suggested targets may address:

- Canopy cover.
- **Species** diversity (See guide right).
- Species suitability for location and projected climate change.
- Age diversity.
- Street tree density.
- Number of tree plantings.
- Soil permeability.
- Increase in:
 - number of people using a particular space.
 - number of people with easy access to woodland.
 - compliance with agreed tree protection and planting in new developments.

Action 5: Capture it all in an interim report and consult further

This interim report will help shape the eventual core content of the Strategy. It should articulate the 'Plan'. It will feature:

- A draft vision statement.
- Draft goals and objectives.
- Draft targets on a timeline.
- Key actions.

The report should be circulated to all workshop attendees and other relevant stakeholders for comments. Once these have been integrated, and the steering group is satisfied with the draft Plan the report outlines, it is time to start writing the final Strategy document.



Using canopy cover targets

The **Urban Forestry** and Woodland Advisory Committee's Network (UFWACN), which brings together tree, woodland and urban forestry champions and experts to advise the Forestry Commission on Urban Forestry matters, emphasises that tree canopy cover targets are best set locally, based on an understanding of existing baseline cover, and within the context of a clear timeframe for realisation.

From a purely mathematical, and tree-focused perspective, a range of issues ought to be considered when setting such a target. Tree populations are dynamic, and the age and ownership (public verses private) profiles of the existing tree population will have an impact. So will the availability of planting space. Opportunities for new planting, reducing the rate of tree loss and enhancing the growing condition of existing significant trees all need to be forecasted and planned for.

Where not as much data analysis capacity is available, the UFWACN offers, as an alternative, a more empirical approach – building on what is emerging in the UK as 'good practice': "20% tree canopy cover can be a good aspiration for towns and cities, with 15% for coastal settlements, which generally have lower tree populations."

However the general advice in our changing climate is to achieve as high a canopy cover as possible, as for example shown in the 3-30-300 rule (see 2.3.2).



Work places also benefit from views to trees and access to greenspace. Elizabeth II Court, Winchester, by Bennetts Associates. © Tim Crocker



TDAG's guide provides clear information with a decision-making tool for appropriate tree species selection.

Strategy



Goals

Write the Strategy to be concise, accessible, and clear, continuing to ensure that all stakeholders concerned are fully committed to delivering the actions identified.

Actions

- 1) Draft the Strategy and the **SMART** action plan in tandem.
- 2) Consult on the draft Strategy and **SMART** action plan.
- 3) Complete and adopt the Strategy.

Outputs

- Strategy featuring a **SMART** action plan.

Actions

Action 1: Draft the Strategy and the SMART action plan in tandem

A Strategy without a **SMART** action plan is only an aspirational document, which is unlikely to achieve significant change. The **SMART** action plan must be developed alongside the Strategy to provide the delivery mechanism.

For each of the actions the **SMART** action plan needs to include:

- Relevant goals it is supporting.
- Leadership/responsibility.
- Players involved.
- Start and completion dates.
- Indicators/measures of success.
- Estimated costs (capital and revenue).
- Funding sources.

Actions that cannot be clearly owned by a defined party should not feature in the final draft of the **SMART** action plan.

Resources may be limited and so the **SMART** action plan need only include a limited number of priorities for the first year or so. As progress is made, new priorities will emerge and may be added as the plan is reviewed.

Decide on priorities by assessing:

- The conclusions and recommendations of the Strategy on top issues to address.
- The opportunity for quick wins that get results and publicity.
- Resource availability and funding opportunities.
- Local political priorities.
- The priorities of other programmes such as, in England, goals pursued with the Local Enterprise Partnership or the Local Nature Partnership, to which actions in the Strategy could contribute.

Action 2: Consult on the draft Strategy and SMART action plan

A formal consultation should ensure the full support of all relevant players. These may include:

- Regional authorities eg Metropolitan authority or National Park authority.

- Neighbouring local authorities.
- Town and parish (England) or community (Scotland and Wales) councils.
- Significant landowners/land managers, including housing associations, land management trusts and large private estate owners.
- Utility companies.
- Local partnerships coordinating actions on landscape, biodiversity, climate, public health and/or economic growth issues such as the local nature partnership, the local enterprise partnership and, where applicable, community forests (England), the local biodiversity partnership (Scotland), or the public service board (Wales).
- Relevant community and neighbourhood groups, including tree wardens, friends of parks and forests, and civic societies.
- National charitable organisations such as the Woodland Trust, the Wildlife Trusts, The Tree Council, Trees for Cities, and, in Scotland, the Green Action Trust.
- National bodies such as, in England: Natural England, the Forestry Commission, the Environment Agency and, where relevant, Heritage England; in Wales: Natural Resources Wales; in Scotland: NatureScot, Scottish Environment Protection Agency and Scottish Forestry; in Northern Ireland: Natural Heritage Northern Ireland, the Northern Ireland Forest Service and the Northern Ireland Environment Agency.
- Private sector partners that play an important role in the supply chain underpinning the local **urban forest**, including tree nurseries and tree management contractor(s).
- The general public.

A record should be kept of all the consultation responses to inform the response to consultees.

Action 3: Complete and adopt the Strategy

Revise the draft Strategy considering the consultation comments. The final document should be endorsed and formally adopted as 'policy' by the council. If the Strategy is to be adopted within the local plan as a development plan document, the relevant additional adoption process will need to be followed.

Deliver/ Monitor



On-going



Goals

Achieve delivery. The point of the Strategy is to get things done.

Actions

- 1) Promote the Strategy.
- 2) Manage implementation and delivery.
- 3) Deliver through planning.
- 4) Deliver through community engagement.
- 5) Deliver through improvements, management, and maintenance.
- 6) Resource delivery.



Outputs

- Progress reports to be produced on a quarterly or half-yearly basis.
- Action plan update implemented as stated in the Strategy.

Actions

Action 1: Promote the Strategy

Once the Strategy has been adopted, it should be promoted. This could be a launch event emphasising matters of interest to the media and the community as to what will happen next. Partners can help to develop networks and remind people of the benefits of engagement.

Action 2: Manage implementation and delivery

Remember, this should be a Strategy that a wide range of people and organisations have signed up to, taking responsibility for its delivery, monitoring and review. The ongoing partnership may evolve to co-opt new skills, but the core group that understands the local issues, priorities and agreed actions of the Strategy should continue to remain committed to its delivery.

It is recommended that a governance and delivery board (Tree Board) is set up to bring partners together on a regular basis. Given its purpose, the composition of such a board may need to be different to that of the steering group which helped guide the Strategy²⁶.

Action 3: Deliver through planning

Incorporating the Strategy into the local plan can be valuable as it brings the status of a statutory document. Whether or not the council embarks on such route, the strategic issues and policies affecting trees in the area should be included in the local plan as illustrated below:

- An over-arching policy that highlights the value of an **urban forest** and the benefits it provides (eg climate change, safe and active mobility, quality of place, public health, and **biodiversity**) and seeks to maintain or increase canopy cover while ensuring good access for all, should be included in the strategic policies.
- Policies for the successful retention of existing trees and the establishment of new trees should be included in development management policies, including a local canopy cover target for qualifying development sites (if such a target is adopted), the need to prioritise tree retention and account for tree value in tree surveys (if such policy is deemed appropriate).

- SPDs should address tree retention and tree establishment including the nature and quality of the tree-related information required with planning applications, typical monitoring requirements on tree retention and establishment, tree selection and diversification targets applicable to new planting, design guidelines and adoption criteria. This is especially so for street trees, and the up-to-date capital and maintenance costs to be applied when commuted payments are to be collected.
- Detailed consideration of funding local infrastructure, including trees, is often dealt with in a separate developer contributions SPD.
- Detailed design consideration should be addressed in the local **design code**, including the profile of tree planting sites to be favoured, and the integration of trees with sustainable drainage.
- The **SMART** action plan should cross-reference the local plan where this is seen to be the mechanism for implementing parts of the Strategy. In this way, it will act as part of the delivery mechanism for the local plan. Delivery of outcomes is increasingly important in demonstrating the soundness of the local plan.

Action 4: Deliver through community engagement

Involving the community in planning, implementation, monitoring and operating phases can bring wider benefits, but should not be viewed as a cheap option. Communities need support and guidance, but time and effort will pay long-term dividends. Parish councils, friends' groups, tree wardens and other special interest groups will be useful starting points.

Action 5: Deliver through improvements, management, and maintenance

The Strategy should act as an effective management tool. Many of its actions will be delivered over time through refocusing resources for management and maintenance, tackling priority issues and making efficiency savings through improving management practices.

Action 6: Resource delivery

A realistic assessment of the resources needed against those available to deliver the Strategy is recommended. It is also useful to estimate the cost of each stage to make the case for additional funds, ensuring that costs are justified by a clear indication of the resulting improvements.



²⁶ Santa Monica Urban Forest Masterplan. Revised 2017. <https://www.vibrantcitieslab.com/wordpress/wp-content/uploads/2017/05/Santa-Monica-Urban-Forest-Plan-2017.pdf>

Time and resources are an important element in delivering successful outcomes. Some of the principal resources available to assist with delivery are set out below.

Local authority resources

Both capital and revenue budgets will be needed. Local authorities usually operate a corporate plan that sets out corporate priorities. Associated budgets may be included within the corporate plan, or in a related financial plan. These plans usually last for three to five years, depending on spending cycles, and are generally reviewed annually. Projects in the first year represent a firm commitment, while those in later years are less committed to and subject to change. It is very important that tree and woodland Strategy priorities are transferred into the local authority's corporate plan to gain high-level officer and member commitment and resources. These plans are usually translated into departmental actions and budgets (service plans).

Provision of trees or funding through the planning process

The local plan should set the standard for tree provision (quantity and quality) that should be provided within new development. The local plan can also provide a mechanism for negotiating developer contributions for provision in an alternative location(s) by setting out the circumstances where this would be appropriate. Where trees are planted in adoptable highways, this might also include a commuted maintenance sum.

Provision or contributions are usually secured either through:

- A planning obligation (section 106 agreement in England and Wales, section 75 agreement in Scotland, section 76 agreement in Northern Ireland) which will specify how the commuted sum is to be spent, and usually a time limit for spending it. The local authority should be able to demonstrate where such funds have been spent.
- A levy, such as the community infrastructure levy in England.

Commercial activities

Some modest opportunities for revenue generation exist where significant areas of woodland are owned by the local authority (via forestry or catering activities), and/or via the recycling and reuse of arboricultural arisings. The revenue funding thus generated

should be ring-fenced for the improvement of tree and woodland management in the borough.

External resources

The Strategy will provide the reference framework needed for supporting funding applications, offering the evidence that the project is a priority and is supported by local people.

There may be opportunities for the joint funding of initiatives with other partner organisations, and contributions can be made through funding or skills and expertise.

Partnerships with not-for-profit organisations can also provide opportunities to tap into funding that is not available to local authorities, or that is too complex to manage within the strict budgetary framework local authorities have to abide by.

The private sector has demonstrated its willingness to fund and support projects, either on a one-off basis or through long-term involvement.

“Planting trees is popular with the public. It can be fun and is almost always an uplifting and memorable experience. Follow-up, including care and replacement, is more the neglected child of urban forestry.”

Arbor Day Foundation²⁷



²⁷ See: <https://www.arborday.org/trees/bulletins/coordinators/resources/pdfs/089.pdf>

03 Targets, Priorities and Actions

T1 Relative Tree Canopy Cover

Canopy cover, which is often also referred to as tree canopy cover or urban canopy cover, can be defined as the area of leaves, branches, and stems of trees covering the ground, across a given area, when viewed from above. Canopy cover is a two-dimensional metric, indicating the spread of canopy cover across an area. Assessing canopy cover is popular because it is relatively simple to determine from a variety of means and it can be calculated at relatively little expense.

Several studies have already been undertaken on estimating the canopy cover in Birmingham, including the Forest Research 2017 i-Tree Canopy survey, the 2020 urban canopy cover citizen science survey and the BlueSky National Tree Map data already held by BCC. However, these studies are not directly comparable with each other as they used different methods, definitions (of what constituted urban tree canopy cover) and project boundaries. Going forward Birmingham will identify a suitable project area and method of assessment so that repeat surveys can be compared in order to track and monitor performance.

Canopy Cover	Study type	Study Year	Source
23%	i-Tree Canopy	2012	www.urban-treecover.org
18.6%	Forest Research Canopy Assessment	2018	BCC website and Birmingham's tree policy
10.7%	BlueSky NTM	2019	BlueSky National Tree Map
21.3%	i-Tree Canopy Ward level	2020	https://www.forestresearch.gov.uk/research/i-tree-wood-urban-canopy-cover/

Table 1: Historic Urban Tree Cover Estimates for Birmingham

- Actions**
1. Assess and determine which sets of data are best to use for establishing Birmingham's relative tree canopy cover.
 2. Determine what the potential and actual tree canopy cover are at the ward level.

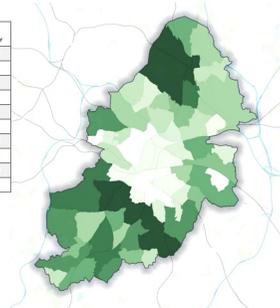
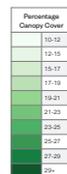


Figure 1: Birmingham's Existing Canopy Cover By Ward measured with Sentinel Satellite Data

Priority	Responsibility	For Review:
High	1. BCC will collate the available information from various sources including the Woodland Trust, Birmingham University and Forest Research. 2. BTP will commission a piece of work to ascertain how the existing tree canopy cover compares with the potential canopy cover.	April 2022 - Short term project

Performance level	Performance Indicators			
	Low	Moderate	Good	Optimal
Data source decision required	The existing canopy cover equals 0-25% of the potential.	The existing canopy cover equals 25-30% of the potential.	The existing canopy cover equals 50-75% of the potential.	The existing canopy cover equals 75-100% of the potential.

Canopy cover indicator for Birmingham.
 © Birmingham TreePeople

A good example of private sector support is *An Urban Forest Master Plan for Birmingham 2021-2051*, initiated by Birmingham TreePeople which obtained grant aid to commission, alongside the city council, Treeconomics as lead consultant with the Nature Based Solutions Institute. Birmingham TreePeople continued to provide technical input and the city council's principal arboriculturist guided the process through to adoption. This page demonstrates the indicator used for tree canopy cover²⁸ and how this can be a useful tool/method to ensure that the Strategy delivers.

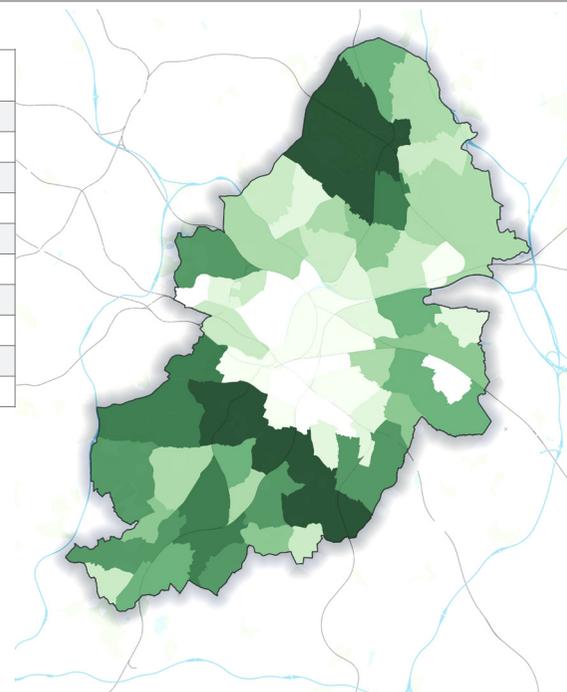
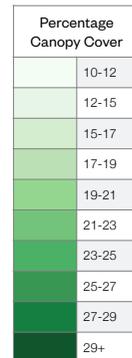


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High	1. BCC will collate the available information from various sources including the Woodland Trust, Birmingham University and Forest Research. 2. BTP will commission a piece of work to ascertain how the existing tree canopy cover compares with the potential canopy cover.	April 2022 - Short term project

Performance Indicators		
Moderate	Good	Optimal
The existing canopy cover equals 25-30% of the potential.	The existing canopy cover equals 50-75% of the potential.	The existing canopy cover equals 75-100% of the potential.

High priority for actions to increase canopy cover.
 © Birmingham TreePeople



²⁸ Birmingham Urban Forest Masterplan with indicators. <http://birminghamtreepeople.org.uk/birmingham-urban-forest-master-plan/>

Mayor of London/Forestry Commission (2013). *Green Infrastructure and Open Environments: Preparing Borough Tree strategies*. Greater London Authority
www.london.gov.uk/file/5312/download?token=snBFLg3S

Urban Forest Management Plan Toolkit
<https://ufmptoolkit.net>

Vibrant City Lab Urban Forestry Toolkit
www.vibrantcitieslab.com/toolkit/

Britt, C and Johnston, M (2008). *Trees in Towns II*. Department for Communities and Local Government: London
www.researchgate.net/publication/268332680_TREES_IN_TOWNS_II_government_recognition_of_urban_forest_needs_Urban_forest_sustainability_indicators

Clark, JR, Matheny, NP, Cross, G and Wake, V (1997). *A model of urban forest sustainability*. *J. Arboric.* 23, 17–30
www.researchgate.net/publication/254202799_A_model_of_urban_forest_sustainability

Kenney, WA, van Wassenaeer, PJE and Satel, AL (2011). *Criteria and Indicators for Strategic Urban Forest Planning and Management*. *Arboriculture & Urban Forestry* 37(3): 108–117
www.isa-arbor.com/events/conference/proceedings/2013/VAN_WASSENAER_article_AUF_%20May_2011.pdf

Cecil Konijnendijk, Kjell Nilsson, Thomas Randrup, Jasper Schipperijn (eds) (2005). *Urban Forests and Trees, A Reference Book*.
<https://link.springer.com/book/10.1007/3-540-27684-X>

Leff, M (2016) *The Sustainable Urban Forest – A Step-by-step Approach*. Davey Institute and USDA Forest Service
www.itreetools.org/documents/485/Sustainable_Urban_Forest_Guide_14Nov2016_pw6WcW0.pdf

Vaz Monteiro, M, Handley, P, Doick KJ (2020) *An insight to the current state and sustainability of urban forests across Great Britain based on i-Tree Eco surveys*. *Forestry: An International Journal of Forest Research*, Volume 93, Issue 1, 107–123
<https://doi.org/10.1093/forestry/cpz054>

Arisings: all debris resulting from tree works.

Biodiversity Net Gain (BNG): under the Environment Act 2021, all planning permissions granted in England (with a few exemptions) will have to deliver at least 10% biodiversity net gain from November 2023 and from April 2024 for small sites.

Design code: a tool for LPAs, communities and developers to define and deliver design quality.

Diameter at Breast Height (DBH): is a forestry mensuration terms widely interpreted as measuring the diameter of a tree at 1.3m from ground level.

Ecology: is the study of organisms and how they interact with the environment around them.

Ecosystem: is a natural environment including flora (plants) and fauna (animals) that live and interact within that environment.

Green infrastructure (GI): a strategically planned network of natural and semi-natural areas with other environmental features designed and managed to deliver a wide range of ecosystem services in both rural and urban settings.

Green Infrastructure Framework (GIF): aimed at planners and developers this is a tool to analyse where greenspace in urban environments is needed most – parks to green roofs to increases tree cover.

Hedge: a boundary formed by closely growing shrubs or small trees.

Hedgerow: includes both the hedge and features such as trees, shrubs, walls, fences, banks, ditches and gates.

Local Nature Recovery Strategies (LNRS): a new system of spatial strategies for nature to plan, map, and coordinate, practical, focused action and investment in nature's recovery to build the national Nature Recovery Network.

Nature Recovery Network (NRN): a national network of wildlife-rich places to expand, improve and connect these places across our cities, towns, countryside and coast. The NRN is a major commitment in the government's *25 Year Environment Plan* and enacted by the *Environment Act 2021*.

Shelterbelt: a line of trees or shrubs planted to protect an area from fierce weather.

Species: is the lowest taxonomic ranking in biological classification. A natural group of trees in the same **genus** made up of similar individuals. For example: *Pinus sylvestris* (common name: Scots pine).

Supplementary Planning Documents (SPDs): provide detailed advice or guidance on policies in an adopted local plan. They do not form part of the development plan and cannot introduce new planning policies into the development plan. Note: The new local plan systems proposed in the Levelling-up and Regeneration Bill would remove SPDs – to be confirmed.

Tree population: refers to all of the trees found in an area, irrespective of ownership, size, age, or species.

Urban forest: is the ecosystem containing all of the trees, plants and associated wildlife in the urban environment, both in and around the built environment.

Urban forestry: has been defined as “*the art, science and technology of managing trees and forest resources in and around urban community ecosystems for the physiological, sociological, economic, and aesthetic benefits trees provide society*”.

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ONE Creative environments for sustainable design

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THE MERSEY FOREST
more from trees


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Our guides and other resources

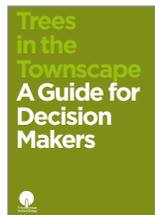
Available at: tdag.org.uk

The six elements

- Propose
- Prepare
- Context

- Vision
- Strategy
- Deliver/Monitor

- Contents
- Section One



Trees in the Townscape: A Guide for Decision Makers

12 action-oriented principles as a 21st century approach to urban trees, providing decision makers with the references they need to fully realise this potential.



Tree Species Selection for Green Infrastructure: A Guide for Specifiers

Provides clear information with a decision-making tool for appropriate tree species selection in the context of climate change, for all urban planting sites and to aid the diversification of the urban forest.



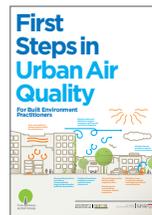
Trees, Planning and Development: A Guide for Delivery

Articulates the range of returns trees offer new developments and how to secure these returns. The main document is supported with additional briefing notes providing further guidance and research based evidence.



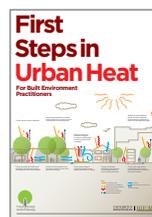
Trees in Hard Landscapes: A Guide for Delivery

Starting from the point where the policy decision to retain or plant trees has been made, this guide explores the key four building blocks to success – collaborative process, designing with trees, technical design solutions and species specific criteria.



First Steps in Urban Air Quality

Compiles the basics built environment professionals need to know about urban air quality and how design of our urban infrastructure – including green infrastructure – determines where air pollution is produced, and how it disperses.



First Steps in Urban Heat

Provides an overview of the sources and circulation of heat within our urban areas, including the cooling benefits provided by green infrastructure, and other cooling solutions.



First Steps in Valuing Trees and Green Infrastructure

Compiles accessible information and advice about the use of economic valuation approaches for trees and green infrastructure, which tool or method to choose and how to get started.



First Steps in Trees and New Developments

Sets out simple principles of good practice from pre-to post-planning for achieve both housing and tree planting targets.



Case Study Library

Case studies may be included in the guides or are referenced in the Case Study Library. These reflect different project viewpoints, aim to offer impartial, factual information and are periodically reviewed to check the progress of tree planting.

How our guides are developed

As is TDAG's practice, it has been an exercise in cross-disciplinary collaboration, made possible through the generous financial support of our sponsors (see Financial support pages).

Please Note: while very effort is made to ensure that the information in TDAG guides is obtained from reliable sources, the TDAG Trust is not responsible for any errors or omissions or for the results obtained from the use of this information. TDAG guidance cannot replace professional advice.

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Working in collaboration for better places

The six
elements

- Propose
- Prepare
- Context

- Vision
- Strategy
- Deliver/
Monitor

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