

Introduction

In April 2019 Teignbridge District Council (TDC) declared a 'climate emergency' and in September 2020 the Council brought forward a further motion on a Climate and Ecological Emergency. One of the actions pledged was to complete a Tree Strategy for Teignbridge.

The Council recognises the importance and value of trees and other green infrastructure such as flower rich grassland, meadows, wetlands, heathlands, hedges, parkland in providing multiple benefits for health and wellbeing, biodiversity and carbon capture.

The Council is fortunate to have within its District areas of woodland managed by Dartmoor National Park (DNP) and within its Local Plan area by its other partners the Forestry Commission, Woodland Trust, Dartmoor National Park, Devon

Wildlife Trust, Devon County Council, Town and Parish Councils, as well as many private landowners. The TDC Local Plan area is 42,431ha and currently over 22.3% of this is tree canopy (Bluesky, 2019 includes woodlands and all individual trees with at least a moderate sized canopy).

As a landowner the Council manages a significant tree stock in its National and Local Nature Reserves, woodlands, SANGS (suitable alternative natural green spaces), parks and open spaces, cemeteries and closed churchyards. This land and trees have an important role connecting habitats with wildlife corridors, buffering impacts on sites of importance and it is essential the management of this green infrastructure reflects its surrounding areas.

Purpose

This strategy sets out how the Council will work with its partners to drive community action to increase tree canopy cover and quality in Teignbridge, focus on 'the right tree in the right place', promote best practice in terms of tree management and increase local engagement and interest in trees in their area.

This document sets out to demonstrate that the Council proactively manages its trees, employing best practice and appropriate policies. It gives an account of the species diversity, age structure and condition of the Council's current tree stock and how that information will be used to plan future tree planting.

Teignbridge's trees and woodlands have the capacity to improve the quality of life for its residents and make a significant contribution towards the Council's environmental aspirations and targets. This strategy recognises the importance of trees, the benefits they provide and the increasingly important role they can play in mitigating the effects of climate change, flood amelioration and pollution control.



Aims of the strategy

The aims of the Councils tree strategy are to provide a framework for the management of the District's tree asset by:

- Increasing the tree cover on Council owned land to help exceed the 19% canopy cover target recommended by the Woodland Trust and increase the current Teignbridge tree cover from 22% to 25%.
- 2. Promoting the improvement and increase in tree cover within the District by providing advice to Town and Parish Councils along with other landowners.
- 3. Maintaining a diverse tree stock by improving age and species diversity to reduce impacts from climate change and potential disease outbreaks.

- 4. Maximising the wildlife and habitat benefit provided by the District's tree stock.
- 5. Updating the strategy for managing the risks posed by Council owned trees including inspection types and frequency.
- Undertaking management works of the council's trees in accordance with current best practice and to minimise long-term costs.
- 7. Promoting good management of privately owned trees.

Tree Strategy Context

Links to further information that this document is based on:

- National agenda Ten Point Plan for a Green Economy
- <u>Local Plan</u> Teignbridge Local Plan 2013-2033 Adopted 6th May 2014 & the Local Plan Review 2020 to 2040. This includes policy to protect trees and tree coverage
- <u>Design guide</u> this document has informed the Local Plan and provides detail on goodquality design principles and examples
- <u>Biodiversity net gain</u> this is expected to become mandatory by 2022 via the Environment Bill and will require a development to achieve a minimum 10% uplift for biodiversity

- <u>Air quality plan</u> TDC Air Quality Plan 2020
 & Environment Act 2015 fulfilling National Air Quality Objectives. This recognises the value of carbon storage achieved by mature trees / long-lives trees in the right place
- Climate change action plan recognises work begin carried out by TDC and other organisations to address the climate change emergency
- <u>Council Strategy</u> Strategic core Council projects that include 'Out and About and Active' and 'Great Places to Live and Work'

Benefits of trees and woodland

Trees clean the air by absorbing odours and pollutant gases and filter particulates out of the air by trapping them on their leaves and bark.

Trees help combat climate change by removing and storing carbon while releasing oxygen back into the air.

Trees help prevent soil erosion on hillsides and steep slopes, slowing runoff, and their roots binding soil in place.

Trees provide

food, fruit

Trees save water. Shade from trees slows water evaporation from Trees shelter homes in the winter from cold winds and keep buildings cool in the summer so reducing the need for energy.

grassed and planted areas.

> Trees shield people from ultra-violet rays trees reduce UV-B exposure by about 50 percent.

Trees help prevent water pollution by intercepting rainfall, slowing flow down the trunk and into the ground, reducing storm water carrying pollutants to rivers and the sea.

> Trees provide wood and can be selectively harvested for construction, fuel and craft wood.

Trees block and screen things improving views, muffling the sound of traffic absorbing dust and reduce glare.

> Trees provide a canopy and habitat for wildlife. Oak and Sycamore are among the many local species that provide excellent urban homes for birds, bees and bats.

Trees help our wellbeing, reduce mental fatigue and stress, also a having a calming effect on poor behaviour.

and nuts for humans, birds and wildlife. Trees create economic opportunities. Research indicates that people prefer to live, work and play in leafy environments. The presence of trees

property.

Trees are a spiritual inspiration for adults, and a creative play frame for children.

> Trees mark the seasons winter, spring, summer or autumn, trees adding seasonality and interest.

can add to the value of

Tree planting and woodland provide an opportunity for community involvement and empowerment that improves the quality of life in our communities.

> Trees create a sense of place providing landmarks and can give a neighbourhood a new identity and encourage civic pride,

Teignbridge District Council Tree Stock

Our inventory and iTree Project

A recent study was commissioned using iTree, a recognised international tree valuation tool. The results of this were very good and shows that the Council currently has a resilient tree population, especially in light of the impacts of ash dieback disease. The study showed that the asset value of the Council tree stock is £16 million (£144 million amenity asset value) and that our trees are responsible for 102 tonnes of carbon sequestration, along with pollution capture benefits and surface water interception.

The study revealed that the tree stock has a broad species mix and the stock is relatively young. This means that the benefits will increase as it matures but highlights a need to continue planting to maintain a diverse age range. Planting a broad species mix also increases the benefits provided by the trees – see graphs below.

The study provides a powerful tool to aid strategic management decisions relating to the trees the Council owns.

The Council owns over 33 hectares of woodland comprising nine woodlands across the district. The woodlands are:

- Warren Copse, Dawlish 1.7 Ha
- Elm Grove Woods, Dawlish 1.46 Ha
- Oaklands Wood, Dawlish 2.75 Ha
- Frobisher Wood, Teignmouth 0.54 Ha
- The Ness, Shaldon 1.67 Ha
- Milber Woods, Newton Abbot 6.45 Ha
- Ben Stedhams Wood, Newton Abbot 1.76 Ha
- Rosewarne Avenue, Newton Abbot 2.43 Ha
- Broadlands Wood, Newton Abbot 1.66 Ha
- Decoy Country Park 13.5 Ha

The woodlands provide both important local visual landscape features as well as important habitat.





Overview of the results of the iTree project

Tree Species

Teignbridge's tree inventory has a large diversity of tree species (179). However a small number of species dominate (see figure 1 below). 11.5% of the 7,000 trees in Teignbridge's tree inventory are English oak (Quercus robur) and the second, third and fourth most common trees are respectively: Ash (Fraxinus excelsior – with 8.3%), Sycamore (Acer pseudoplatanus – with 5.9%) and Silver birch (Betula pendula – with 4.9%). The large diversity of tree species (179) within Teignbridge's tree inventory creates relatively low percentages for the most common species observed in the chart and a high percentage for the 'all other species' category.

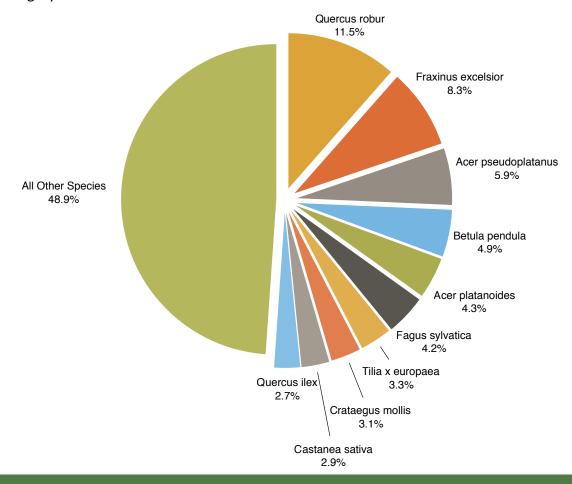


Figure 1: Percentage composition of tree species



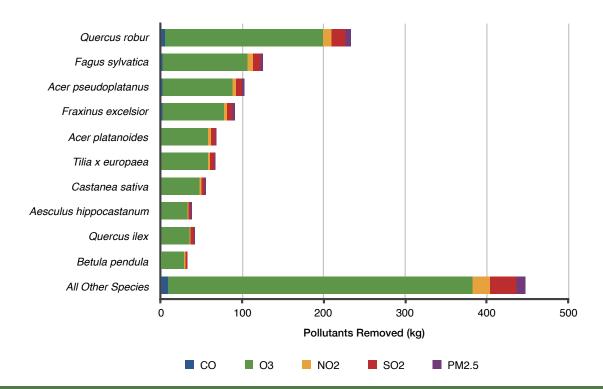


Figure 2 - Pollution removal by species owned by TDC – Trees help to capture pollution, but some species that we own are better than others for doing this. Oak, beech and sycamore provide the most.

The main driving force behind climate change is the concentration of carbon dioxide (CO²) in the atmosphere. Trees can help mitigate climate change by storing and sequestering atmospheric carbon as part of the carbon cycle. Since about 50% of wood by dry weight is comprised of carbon, tree stems and roots can store several tons of carbon for decades or even centuries.

Overall the trees in the Teignbridge inventory store an estimated 5,375 tonnes of carbon with a value of £1,320,637. This quantity and value will increase over time as trees grow.

Figure 3 (below) illustrates the carbon storage of the top ten trees.

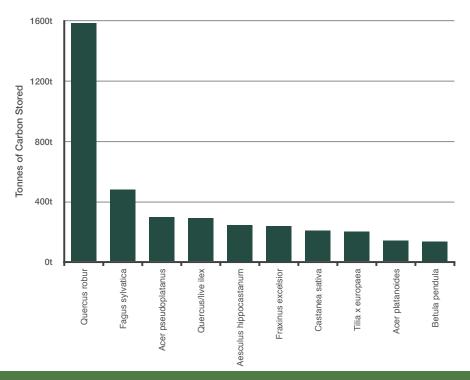


Figure 3 - Carbon storage for the top ten TDC trees that Teignbridge own. This growth shows that English Oak (Quercus robur) is the most useful tree for carbon storage, helping to tackle climate change.

Species	Carbon Sequestration (tonnes/yr)	CO ₂ Equivalent (tonnes/yr)	Carbon Sequestration (£/yr)
English Oak (Quercus	24.04	88.17	£5,907
robur)	7.77	20.12	C4 00F
Beech (Fagus sylvatica)	7.67	28.13	£1,885
Sycamore (Acer	6.32	23.19	£1,554
pseudoplatanus)			
Common Ash (Fraxinus	5.60	20.53	£1,376
excelsior)			
Silver Birch (Betula	4.39	16.10	£1,079
pendula)			
Holm Oak (Quercus	4.27	15.66	£1,049
ilex)			
Sweet Chestnut	4.20	15.40	£1,032
(Castanea sativa)			
Norway Maple (Acer	3.74	13.70	£918
platanoides)			
Horse Chestnut	3.50	12.83	£860
(Aesculus			
hippocastanum)			
Common Lime (Tilia x	3.45	12.64	£847
europaea)			
All Other Species	34.45	126.31	£8463
Total	101.63	372.66	£24,968

Figure 4: Carbon sequestration by species within the TDC inventory. The table also shows the value of the carbon capture as a monetary value.

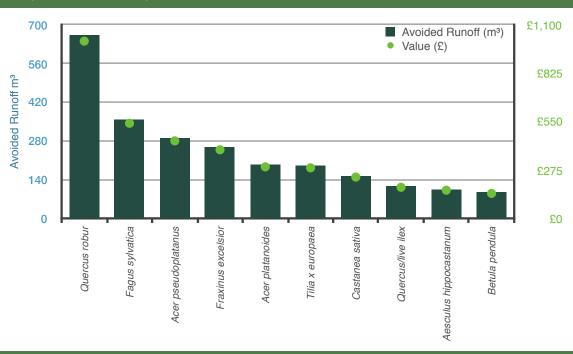


Figure 5 - Avoided surface water runoff from TDC trees — trees not only capture water but slow down the movement of it into the drainage systems and rivers. This helps to prevent flooding and reduces the amount of money required to do that.

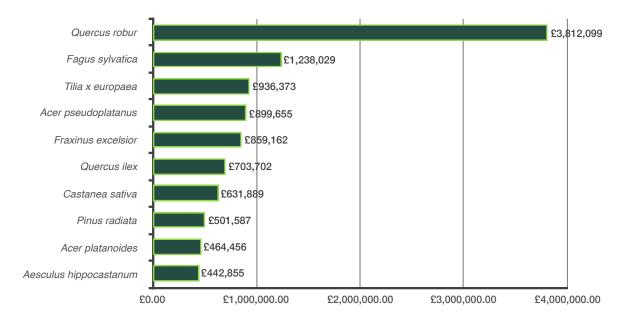


Figure 6 - Replacement cost for the top 10 species in the Teignbridge Inventory – this graph shows the cost of replacing every tree by species, if they all had to be replaced. This gives us a purely monetary value for the trees (asset value) but doesn't include the monetary value of the other benefits that they provide.









Ash Die Back

The disease is now present across the District at an early stage. A study has been undertaken to assess the number of ash trees owned by the Council and the cost implications of managing the disease. The Council own over 3800 ash trees. Original estimates predicted a low death rate in the UK, but recent research is indicating growing conditions for the disease are favourable indicating a much higher death rate than first thought, so the current expectation is that we could lose over 90% of Ash trees in our District. Government and Forestry Commission advice will be closely followed to allow our predictions and management actions to be updated as the disease progresses.

The impacts of the disease are likely to peak in 3-6 years requiring the removal of dead trees where they pose an unacceptable risk to public safety.

Summer 2020 saw the disease progress rapidly in parts of South Devon, leading to many trees dying. However, at the majority of Teignbridge sites the disease is still at an early stage, but it is highly likely that tree loss will occur more rapidly than first estimated. The situation is volatile, and we will adapt as more information becomes available.

Teignbridge Council will follow the principles agreed by the Devon Ash Dieback Resilience Forum.

Trees will only be felled where the risk of retaining them is unacceptable. Where possible trees will be pollarded to provide habitat value whilst reducing risk.



Trees will be replaced, when suitable, with native species sourced from UK sources. On woodland sites, where ash trees are removed, replacement will be via natural regeneration as this is inherently more resilient and successful than planting. The loss of ash will open up the woodland canopy and regrowth will then be managed to select appropriate species and planting density.

Recent woodland planting already far exceeds the number of ash trees that have been removed. The overall impact of the disease will not reduce the Council's tree stock.

The Council will only plant trees from nurseries and suppliers with biosecure measures in place.

Achieving the aims of the strategy

Action Plan

1

Increasing the tree cover on Council owned land to help exceed the 19% canopy cover target recommended by the Woodland Trust, to reach 25%.

The aims of the Councils tree strategy are to provide a framework for the management of the District's tree asset by:

Identifying sites where it is possible to plant trees in areas where that does not conflict with other uses. Trees will be planted every planting season to satisfy the aims of improving the quality of the Council's arboricultural asset (see also aims 3 & 4 below.

Tree planting will be appropriate to the site (right tree in the right place). This will entail favouring native species and where possible linking into and enhancing existing features i.e. woodlands, hedges and other habitat features. This will provide 'stepping stones' for wildlife. The location of new planting will be carefully chosen so they are not in conflict with their surroundings, including residents' properties.

The Council is committed to increasing the District tree cover. The TDC Local Plan area is 42,431ha and currently hosts 22.3% (Bluesky, 2019). The Bluesky figure includes all woodlands and all individual trees with at least a moderate sized canopy.

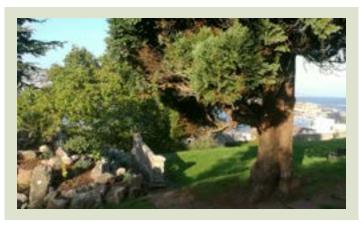
Council owned sites are being assessed to find areas suitable for tree planting and planting has already commenced on three major sites with 1500 trees planted in 2020. A further 1500 will be planted in 2021 and then 2022. A diverse tree population is a resilient population and planting will help to improve species diversity. Planting will also focus on more urban areas that have a low tree cover.

We will work towards 25% canopy coverage overtime and ensure no net loss of coverage. Focus is on the right tree in the right place, rather than quantity. With careful thought planting the right tree, to suit a location, will maximise the benefits the tree brings over a longer period of time.

We will look to external sources of funding to help achieve planting targets. Currently we have received funding from:

- The Woodland Trust who have supplied trees for designated planting schemes.
- Idverde the Councils grounds maintenance contractor will plant a tree for every member of staff working on the contract each year.
- Volunteers organisations and individuals have also given their time to plant trees.
 We will continue offer opportunities for volunteering whenever possible.





2

Promoting the increase in tree cover within the District by providing advice to Town and Parish Councils along with other landowners.

Promote and encourage local groups to understand appropriate planting of the right tree in the right place. The Council will provide advice to Town and Parish Councils as well as other local interest groups to help them increase and improve the tree cover on their land. This will be achieved through a mixture of workshops and advice packs on how to select suitable species, establish trees successfully, including through natural regeneration and their long-term management.

Through partnership working we will drive community action. The Council will share good-practice guidance on tree planting, including with town and parish councils and community groups.

We will work in partnership with Action for Climate in Teignbridge (ACT) to develop a network of Parish Tree/ Wildlife Wardens. And by providing tree planting guidance through video/ guide notes and signposting to partner's websites.

The Council will also provide some advice on potential locations and proposals for tree planting to town and parish councils or local community groups, (subject to TDC resources capacity). We will also encourage projects that engage the current and upcoming generations with nature, which may see increased safeguarding and involvement of communities in tree care and connections such as harvesting of fruits and nuts, and better understanding of the importance of our natural ecosystem services that are essential for healthy human lives.

An annual tree planting/ecological event will be run to help disseminate information with local groups – following on from last February's excellent tree planting seminar.





Maintaining a diverse tree stock by improving age and species diversity to reduce impacts from climate change and potential disease outbreaks.

A diverse and well connected tree population will help towards combatting climate change and reduce the negative impacts of a changing climate. A diverse population will also improve resilience from pests, diseases and climate change. This will be achieved through planting and management, that will seek to increase the diversity of the:

- Age range of the tree population whilst the current tree stock has a very good range of ages, from young to mature trees, this this could decline over time if planting is not continuous. An over mature tree population is in decline and the benefits provided by large, old trees will be lost unless there are a suitable number to replace them.
- Species mix a broad species mix is the best defence against disease pandemics, particularly those that affect a single species (e.g. Ash Die Back Disease or Dutch Elm Disease). A wide range of species also provides greater resilience with a changing climate and a low species mix places a greater risk of collapse if specific species are unable to adapt.
- Vertical structure generally large tree species convey the greatest benefits (see iTree project) but healthy woodlands have a mixed vertical structure, i.e. ground cover plants, and shrub layer, with maturing and mature tree layer. A good vertical structure ensures that there is a broad range of plants that provide a range of benefits e.g. flowering shrubs and smaller trees for insect pollinators and the next generation of large tree species. A mixture of smaller, flowering trees compliments the larger tree species and increases the benefits provided by the tree population. Open glades will be provided to improve light levels to the ground cover encouraging the growth of other beneficial plants.

The Council will ensure that planting and management will provide more complex edge habitats, between woods and grasslands to enhance habitat value. The tree strategy also recognises the importance of other habitats (e.g. grasslands, wetlands etc) and planting will not be carried out in areas where these can be damaged.

Proper management encourages natural diversity, also improving genetic diversity, which will aid resilience to climate change and disease.

The Council will also seek to ensure that planting and management seek to recognise, promote and protect existing wildlife corridors and linkages via tree and hedgerow planting (in appropriate locations). Planting will enhance and expand the district's Green infrastructure.

Planting will focus on quality - encouraging maintenance of a healthy, well-connected, and resilient tree and woodland stock (including hedgerow trees). This is of prime importance for a well-functioning and effective canopy coverage for biodiversity and carbon benefits.

Planting the right tree in the right place also reduces long term maintenance costs.



4

Maximising the wildlife and habitat benefit of the Council's tree stock.

Trees with habitat features will be retained where the features do not pose an unreasonable risk of harm to the public. Trees often contain cavities, splits, tears flowering, fruiting and other features that can be beneficial to wildlife, including bats, invertebrates, and birds.

Where appropriate tree surgery works will be undertaken to maximise these features.

Dead wood will be retained on sites where appropriate, including retaining standing dead stumps to encourage habitat for insects and fungi.

The Council will promote the public and local groups to use and submit their local veteran trees to the Ancient Tree Inventory. Ancient trees provide an unparalleled range of habitats and the use of the inventory will help to secure their future.

5

Updating and maintaining the strategy for managing the risks posed by Council owned trees including inspection types and frequency.

The risk posed by trees is generally very low and the benefits they provide are considerable. The Council has a routine inspection program that ensures the risks posed by the trees are acceptable.

We manage the risk from our trees by a combination of active and passive assessments. Our trees in high occupation areas are going to be 'actively' assessed on a 5-year cycle. When needed trees will be inspected more frequently to ensure risks are at acceptable levels. The frequency of inspection will be determined by risk assessment.

Trees are also assessed via passive assessment. This is where issues are picked up from routine site visits by Council staff and reports from the general public.

Trees that pose an unacceptable risk will be pruned or felled and this work will be prioritised according to the available budget. The management of the risk posed by trees will be prioritised over general management and/or public requests to reduce nuisance.

Tree risk will be managed in accordance with current best practice including the <u>National Tree Safety Group (NTSG) guidance 'Common sense risk management of trees'</u>. This guidance promotes the management of risk weighed up against the benefits provided by trees. A new/updated tree risk strategy will be put in place by mid 2021.

Using a risk-based approach to tree safety allows for the retention of features that provide a habitat value, by retaining trees where public use is low and/or where risks are at acceptable levels. Trees will only be felled when necessary to maintain risks at acceptable levels.

Where possible dead wood will be retained on sites where that would be safe to do so and where it will improve habitat value.

Standing habitat stumps will be retained where appropriate as these provide a high long-term habitat value.

6

Undertake management works of the council's trees in accordance with current best practice and to minimise long-term costs.

When tree pruning is required it will be undertaken in accordance with national best practice (Recommendations for Tree Works BS3998:2010 – British Standards Institute), unless a greater level of pruning is required to reduce unacceptable risks. Pruning will only be undertaken where necessary e.g. to address nuisance or where it promotes good tree growth.

By minimising pruning it reduces long-term need to manage a tree, reduces introducing defects that increase long-term management costs and prevents stress in individual trees that speeds up decline.

Where existing trees are in conflict with private property, management will be prioritised to ensure works deal with the most pressing cases first. Works will not be undertaken to address minor / normal nuisances e.g. leaf fall, perception of danger, low level shading of gardens. The benefit provided by Council trees outweighs the minor nuisance experienced by residents.

We fell trees where necessary to improve the growing conditions of other trees (called thinning) or where there is an excessive nuisance to residents' properties.

7

Promoting good management of privately owned trees by making Tree Preservation Orders (TPO) in accordance with good practice and planning policy to prevent loss of good quality trees, with a high visual amenity value.

We make TPO to safeguard the landscape character of the District. TPO primarily relate to privately owned trees. Works will be allowed where it:

- Removes trees that are dead or pose a high risk of harm
- Addresses minor nuisance where the works will not harm the trees visual amenity value or lead to a decline in the tree's health.
- Provides good management of a tree or trees for long-term benefit.

Works in Conservation Areas will be allowed as above or where it will not harm the character of that area.

The Council will promote good tree works practice amongst private landowners and tree work contractors, through protected tree legislation (TPO and Conservation Areas) and by providing advice to private tree owners and contractors.

The Council seeks to retain and protect the best quality trees on new development sites using TPO and planning controls. We work with developers to achieve this. The Council will promote high quality landscaping schemes through planning controls.

Landscaping schemes are also required to achieve new planting. Schemes will be encouraged that help to increase the district's canopy cover, avoid an overall loss of tree cover and enhance the local landscape character and habitat value.

The role of the Local Plan

The Local Plan incorporates various policies that relate to protecting and enhancing the quality of tree, hedgerow and woodland cover across Teignbridge alongside development and redevelopment projects.

Strong planning and green infrastructure policy will help to protect, manage and expand local woodland cover.

Overview of responsibility for tree related issues

- TDC Green Spaces Team are responsible for all tree management on Council owned land. greenspaces@teignbridge.gov.uk
- TDC Planning Tree Officer administer the planning related tree services within the Teignbridge
 District Local Plan area. Also deals with issues relating to dangerous trees in private ownership, Local
 Government (Miscellaneous Provisions) Act 1976 Section 23 & 24. and with issues relating to High
 Hedges (Antisocial Behaviour Act) 2003. designandheritage@teignbridge.gov.uk
- Within Dartmoor National Park, Tree Preservation Orders, Conservation Areas, Hedgerow Regulations and Planning Applications relating to trees is administered by <u>Dartmoor National Park Authority</u>.
- Trees growing on land which forms part of the adopted highway are the responsibility of <u>Devon</u> <u>County Council Highways Authority</u>
- Forestry Commission
- Woodland Trust
- Devon Ash Dieback Resilience Forum
- Ancient Tree Inventory

Useful links for advice and funding

- Woodland Trust
- South West Water
- Heritage Lottery Fund
- Forestry Commission
- The Tree Council
- Teignbridge District Council i-Tree Eco Inventory and ORVal Greenspace Valuation Report

