

PUBLIC

# HIGHWAY INFRASTRUCTURE ASSET MANAGEMENT PLAN FOR HIGHWAY TREES

MAY 2024

AN ELEMENT OF THE HIGHWAY INFRASTRUCTURE  
ASSET MANAGEMENT SYSTEM

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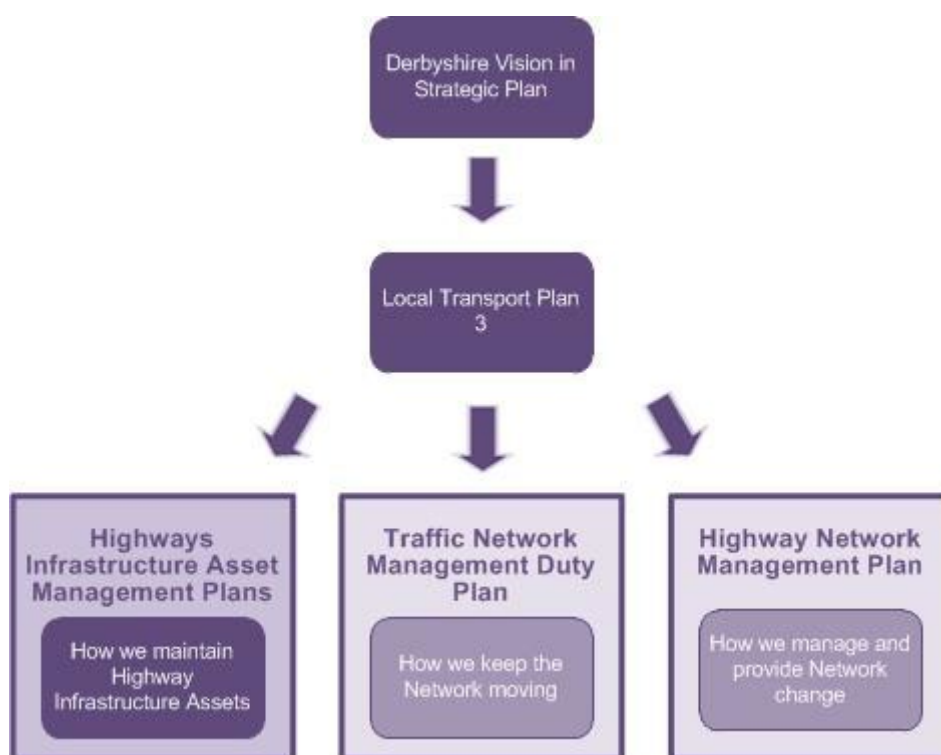
## 1. INTRODUCTION

This document provides the technical details that supports the Highways Infrastructure Asset Management Strategy and Plan and forms part of the Highways Infrastructure Asset Management suite of documents. It is a working document that provides the processes and information used internally by staff undertaking roles in delivery of service.

This document will recognise a number of Development Areas where Derbyshire has recognised potential improvements to the service they deliver. These development areas are aspirations only and will be reviewed on an annual basis to assess whether they are deliverable from a financial and resource perspective. A breakdown of these Development Areas can be found at the [end of this document](#).

The following figure shows this documents context with other key documents in how the network is managed, maintained and changed:

**Diagram 1: Plans and Policy Framework**



The Highway Act places a duty on Derbyshire to ensure that trees they own and those under private ownership adjacent to the highway do not pose a danger to the public. The council must also maintain a record of trees under its responsibility and ensure that they are inspected regularly. Defective trees must be noted and appropriate action is taken and recorded. This document will set out how we intend to meet these requirements.

## 2. SCOPE

This document covers the tree assets on the Derbyshire highway network that Derbyshire have a responsibility to maintain. Derbyshire manage a diverse range of sites, greenways and trails within the County. Many of these locations include a proportion of trees and

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woodland cover. There is approximately 1,999 hectares of woodland cover managed by Derbyshire.

This document, however, does not include those trees that are maintained by third parties such as Utilities, Highways England, the Environment Agency, Canal and River Trust, National Trust, local land owners, businesses or Council owned land outside the highway zone of influence.

### 3. ASSET CAUSES OF DETERIORATION

The main causes of tree assets deterioration are itemised below. This list is not an exhaustive list of cause of deterioration for trees:

**Table 1: Deterioration and Associated Defects**

#### Young Trees < 10 years old

<b>Cause of Deterioration</b>	<b>Description</b>	<b>Typical Defects</b>
Poor planting standard	Insufficient soil preparation, planting at the wrong depth, poor tree pit design e.g. lack of root deflectors and inadequate soil volumes to sustain trees long term.	Basal decay in planted too deep, die-back of the crown, death, root girdling, displacement of hard surfaces close to the tree.
Lack of post-planting care	Lack of irrigation, poor installation and maintenance of stakes/ties.	Die back of branch tips, sparse leaf cover and death. Abrasion damage to bark, unstable trees that begin to lean or become uprooted.
Physical damage	Strimmer damage on verges, vandalism, impact damage from vehicles, damage from animals.	Ring-barked at the base, basal decay at root collar, die-back in crown and death.

**Mature Trees**

<b>Cause of Deterioration</b>	<b>Description</b>	<b>Typical Defects</b>
Lack of soil volume	Trees exhibiting signs of decline e.g. thin canopy, dieback of branches, discoloured leaves, small annual growth increment.	Overall decline in health that can leave trees more vulnerable to pests and disease, formation of shallow roots that often cause lifting to hard surfaces or light structures close to the tree.
Physical root damage through excavation	Trenching for utilities, road works and built development leading to root severance.	Decline in tree health as above, if supporting/ structural roots are severed this can lead to instability of the tree and be a catalyst for decay fungi to exploit the exposed regions of damage.
Soil compaction resulting from all types of construction, pedestrians and vehicle traffic.	Compacted soils reduce the airspaces within natural soil structure and reduces the amount Of oxygen available to the tree and lead to root asphyxiation. Heavy compaction may also restrict the ability of roots to penetrate surrounding soils and inhibit growth.	Decline in overall health, dieback and premature death.
Ash dieback (Hymenoscyphus fraxineus)	Caused by a fungal pathogen that blocks the xylem vessels (water transport system) within the leaves and branches of ash trees. This girdle these parts of the tree, causing them to die back, with more and more branches affected until eventually the whole tree dies.	The most common symptoms include blackening and wilting of leaves and small shoots, diamond shaped lesions or cankers at the joins between twigs and branches, basal lesions and dieback of shoots and branches. The timber of affected trees also becomes progressively more brittle as the disease progresses, increasing the risk to operators working on or around these trees

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## All Trees

Cause of Deterioration	Description	Typical Defects
Pests and diseases	Natural or new invasive species of insects, fungi or bacteria	Species specific symptoms where the organisms may be visible at certain times of year. Tree symptoms include defoliation, premature leaf shedding, leaf wilt, leaf discolouration, dieback, stem bleeding, peeling bark, death of part or entire tree.
Poisoning	Road salt, diesel,	Decline in overall health, dieback and premature death

## 4. NATIONAL/LOCAL GUIDANCE AND RELATED DOCUMENTS

The maintenance of tree assets are governed by a series of national documents and guidance including:

- [Well-managed Highway Infrastructure: A Code of Practice 2016](#)
- [Highway Act 1980](#)
- [Design Manual for Roads and Bridges TD19/06](#)
- [Wildlife and Countryside Act 1981](#)
- [Highway Inspectors Competency Framework](#)
- [Environment Act 2021](#)
- [British Standard – BS3998 Tree work – Recommendations \(internal link only\)](#)
- [NJUG Guidelines for the Planning, Installation and Maintenance of utility apparatus in proximity to trees](#)
- [Manual for Streets](#)

These documents are held online and links are provided above. This document is a live document that is revised whenever a significant change is required to any of the processes or procedures documented within it. The document will also be reviewed in line with review of the [Highway Network Management Plan](#).

Derbyshire County Council has also produced or are producing a series of local documents:

- Natural Capital Strategy (pre-publication)
- [Reactive Maintenance Teams Operational Manual](#)
- [Traffic Network Management Duty Plan](#)
- [Highway Infrastructure Asset Safety Inspections Manual](#).
- [Data Management Strategy](#).
- [Ash Die Back Plan Action Plan](#)
- [Tree and Woodland Strategy](#)
- [The Landscape Character of Derbyshire](#)
- Highway Design Guide (pre-publication)
- [Highway Network Management Plan](#)

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These documents are all available on the Derbyshire County Council website. Links are provided above where possible.

## 5. LEVELS OF SERVICE AND CRITICAL ASSET IDENTIFICATION

The Highways Infrastructure Asset Management Policy, Strategy and Plan have developed and documented the overarching Levels of Service derived from the authority's statutory duties, the national and regional guidance, the management and mitigation of risk both to the service user and the authority and the volume and type of traffic using the network.

The Levels of Service that define the Council's approach to the management of tree assets have been defined within the Network Hierarchy Plan and the Resilient Network documents. There are three levels of service in regards to safety on the network due to budgetary constraints. Levels of Service will be reviewed and amended regularly to take into account budget position.

Table 2 below shows how the Levels of Service relate to the different network hierarchy levels.

### Table 2: Tree Specific Levels of Service

#### Trees on Resilient Network and Network Hierarchies 1 - 4 inclusive and Critical Assets Register

##### Level of Service 1 Safety + Serviceability + Sustainability + Customer Service

**Objective:** Comply with statutory obligations; provide Network Safety, Serviceability/Sustainability corresponding with asset management objectives and inclusive of a fully integrated customer service.

**Standard:** Comply with Code of Practice and apply asset management techniques.

**Impact/Risks:** Programme of annual inspections routes and determination of condition.

Safety inspections and identified safety defects prioritised according to risk-based approach.

Officer observation and all other non-safety repair requests added to the programme to be dealt with in accordance with the timescales set out in the HIAMP.



## Trees on Network Hierarchies 5

### Level of Service 2 Safety + Serviceability + Sustainability + Customer Service

**Objective:** Comply with statutory obligations; provide Network Safety, Serviceability/Sustainability corresponding with asset management objectives and inclusive of a fully integrated customer service.

**Standard:** Comply with Code of Practice and apply asset management techniques.

**Impact/Risks:** Programme of bi-ennial inspections routes and determination of condition.

Safety inspections and identified safety defects prioritised according to risk based approach.

Officer observation and all other non-safety repair requests added to the programme to be dealt with in accordance with the timescales set out in the HIAMP.

## Trees on Network Hierarchies 6 - 7 Inclusive

### Level of Service 3 Provision of safety related issues and Customer Service only

**Objective:** Comply with statutory obligations and to provide Network Safety and customer service.

**Standard:** Comply with Code of Practice and apply asset management techniques.

**Impact/Risks:** Reactive risk-based assessment to determine condition. These will be triggered by the current inspection policy and customer enquiries.

## DEVELOPMENT AREA 1: FORMALISATION OF INSPECTIONS AND ROUTES

Derbyshire will develop and formalise the inspection routes for tree inspections.

## 6. IDENTIFICATION OF NEW ASSETS – DATA CAPTURE

### PLANTING NEW TREES BY THIRD PARTIES ON THE HIGHWAY

Planting new trees on the highway should be in accordance with the Well – Maintained Highways – Code of Practice and the Highways Act 1980 and best arboricultural practice. Guidance on this can be found in the Highway Network Management Plan and the Highway Design Guide. Derbyshire should encourage new tree planting to ensure that Co2 is absorbed from the atmosphere as part of Derbyshire’s response to the issue of climate change. Trees also provide wider ecosystem services such as flood risk management, urban temperature regulation, biodiversity, and health and wellbeing benefits. Comprehensive details of all planting should be supplied and approved by Derbyshire as the Highway Authority and include the information required for Derbyshire to take responsibility of the maintenance of the tree during its life. Derbyshire will not always take responsibility for the maintenance but if it does then a commuted sum must be paid for its long-term maintenance. Derbyshire will require an indemnity from the applicant against any claims arising out of the planting or presence of a tree in the highway. When including a tree planting scheme in the design of the overall street scene then the following must be taken into account:

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- Consideration of Visibility splays
- Consideration of pedestrians (including individuals with impaired mobility, visual impairments and those who use mobility aids and pushchairs)
- Consideration of cyclists and horse riders
- Traffic signs and signals
- Road lighting and crime prevention
- Consideration of utilities and future maintenance requirements e.g. Grass cutting
- Derbyshire County Council highways can grant a transferrable free cultivation licences under S142 Highways Act for an area of highway verge or amenity green to be planted and maintained by an individual, group of individuals, company or corporate body to enhance or improve an area of highway maintained at public expense.

Trees should be appropriate to the location and character of the surrounding landscape and approved by Derbyshire. This should be done in accordance with the guidance in both the Landscape Character of Derbyshire publication and the Tree Species Selection for Green Infrastructure: A Guide for Specifiers. Details of these documents can be found in [Appendix B](#).

The Design Manual for Roads and Bridges TD19/06 should be referred to ensure that the proposed tree does not become a road safety hazard. This only applies if any trees are likely to conflict with a road restraint system.

Tree planting pits should be designed to provide sufficient soil volume to sustain a tree at full maturity according to species.

Root barriers should be installed where applicable to direct and manage the growth of trees. The type should be approved by Derbyshire.

If required a tree grill should be installed to allow for the ingress of water and gaseous exchange. The type of grill should be approved by Derbyshire.

Derbyshire are committed to new tree planting through the establishment of the County Council's [Million Trees Project](#) and the [Heartwood Community Forest](#).

All information about new trees should be added to the Asset Management System to enable the tree inventory to be updated.

All data is to be recorded and stored in accordance with the [Data Management Strategy](#).

## **DEVELOPMENT AREA 2 INTERNAL GUIDANCE FOR ADVISING ON NEW TREES**

The design guide will be extended to support staff in providing advise to developers and members of the public for planting new trees on the highway.

## 7. INVENTORY UPDATE AND ASSET CAPTURE

### **DEVELOPMENT AREA 3 CREATING A DATASET OF TREES THAT HAVE HAD WORKS CARRIED OUT ON THEM**

Through the Asset Management System all trees that are identified as needing works will be added to the Single Asset Management System as an asset. The asset owner will then have to check the record before the asset is formally recorded as verified. This will create a data set of trees on the network and the dataset will continue to evolve as more data is collected over time.

### **DEVELOPMENT AREA 4: CREATING THE TREE INVENTORY FROM DISTRICT/CORPORATE PROPERTY DATA**

Some District Councils and Corporate Property have a tree inventory. There is a need for Derbyshire to gather this information in the asset management system. This will depend on available resources.

### **DEVELOPMENT AREA 5: REGULAR INVENTORY UPDATE**

Following Development Area's 3 and 4 completion there needs to be a process implemented to keep the inventory up to date. This process will need to identify what information needs to be in the inventory. It could include details of inspection regime, standards of inspections and relevant performance measures.

## 8. AS-BUILTS PROCESS AND DATA CAPTURE

As Built data and data capture for assets already on the network will be captured by Development Areas 3,4 and 5.

### **DEVELOPMENT AREA 6 DEVELOPER TREES**

Work is required to address how Derbyshire will accept trees put in place by developers and the requirements for data to be shared with the Council which will work with the Asset Management System. There also needs to be work carried out to establish the commuted sums process for the maintenance of trees on new developments.

## 9. INSPECTIONS AND SURVEYS

Routine route inspections are carried out according to their location on the network hierarchy. The Resilient Network and Network Hierarchy 1 - 4 is set at the highest priority with annual inspections. Network Hierarchy 5 will receive biennial inspections. Network Hierarchy 6 and 7 will be inspected on a reactive basis.

Issues should be reported online using the webforms. These can be found on our website: [Trees and vegetation - highways - Information - Section 1 - Self \(derbyshire.gov.uk\)](https://www.derbyshire.gov.uk/Information/Highways/Trees-and-vegetation-highways-Information-Section-1-Self). Alternatively they can be reported to Call Derbyshire on 01629 533190 between 8am – 6pm Monday to Friday and between 9.30am – 4pm on a Saturday or the non emergency line outside of these hours on 101. When trees are inspected the following is taken into account:

- Species
- Age/Life Expectancy

- Location
- Landscape, Biodiversity and Heritage
- Species/Tree Health
- Asset Value
- Safety issues linked to the tree
- Responsibility for the management of the tree

The process for dealing with reports of dangerous trees can be found in the Customer Road Fault Reporting System Document which is available internally.

The Highway Inspectors will identify dangerous trees on the highway during routine inspections and report as necessary on a risk basis. Guidance can be found in the [Highway Infrastructure Asset Safety Inspections Manual](#).

Public Rights of Way Inspectors will identify dangerous tree on public rights of way and report as necessary on a risk basis.

Tree inspectors will carry out drive-through and walk-over surveys These will be scheduled according to the road hierarchy the tree is situated on.

Where trees are identified as a concern by a report from a member of the public or one of our inspection teams an individual ground level inspection is carried out by our tree inspectors. A report is prepared for such trees and recommendations are issued to highways for action. On some occasions a further detailed inspection may be required prior to recommending a course of action. Such detailed inspections may include the procurement of services from external consultants that provide specialist diagnostic services.

Annual drive-through inspections are carried out throughout the year to allow the identification of disease, structural defects and decay fungi.

The process for highway tree inspection can be found in [Appendix C](#).

#### **DEVELOPMENT AREA 7: IMPROVING THE INSPECTION PROCESS AND FOLLOW-UP PROTOCOLS FOR HIGHER RISK TREES**

The tree inspection process needs reviewing to ensure that higher risk trees that are not on the highest priority roads receive the relevant inspection so they are regularly checked and monitored.

### **10.ASSET CONDITION AND INSPECTION**

This is covered in [section 9](#).

### **11.LIFECYCLE PLANNING FOR NEW TREES**

For new plantings, the full life expectancy will be entered on the tree inventory dependent on species. Development Area 6 will ensure that commuted sums for the management of developer trees are received and that targets are put in place relating to the survival rate of trees.

## 12. MAINTENANCE PROCESSES

### Reactive Maintenance

The Well-managed Highway Infrastructure – A Code of Practice 2016 defines reactive maintenance as follows: “attending to defects and other safety matters that require urgent action arising from inspections or user information in accordance with the locally determined levels of response.

### Maintenance carried out by Derbyshire

Due to limited resources Derbyshire maintain trees on a risk-based approach taking into account asset management principles. Highest priority will be given to works where there is a foreseeable risk to safety of structural damage, in accordance with good arboricultural and risk management practice.

Due to other demands on the service Derbyshire will not routinely respond to requests for tree works for exclusively private benefits including:

- Natural seasonal events such as leaf fall, honeydew or other deposits
- Harboured wildlife e.g. birds, insects, squirrels
- Shade to neighbouring land or solar panels
- Overhanging branches
- Improving or allowing CCTV coverage
- Loss of satellite or TV signal (covered in more detail [here](#))
- Size/height and perceived threat from trees
- Loss of view
- Preventing damage to overhead cables – Statutory undertakers are required to meet the costs of such works and are empowered to undertake them.

These issues may be addressed through the tree management programme in certain instances but will be weighed against other priorities, timescales and available budgets.

Where tree work is carried out, it will be done with regard to the Wildlife and Countryside Act 1981 to avoid damage or disturbance to protected species. Bird nesting is now considered to be from mid-February to late August due to climate change and work will only be undertaken during this period if thorough and documented site checks confirm the absence of breeding activity.

### Ash Die Back Maintenance

During tree inspections, ash trees with ash dieback will be categorised into one of the four following stages:

- Stage 1: 0 – 25 % crown dieback
- Stage 2: 25 – 50 % crown dieback
- Stage 3: 50 – 75 % crown dieback
- Stage 4: 75 – 100 % crown dieback

Once an ash tree is suffering from more than 50 % canopy loss due to ash dieback, it is widely accepted that it is unlikely to recover and will eventually succumb to the disease.

Therefore, trees categorised as either Stage 3 or Stage 4 should be removed or pollarded into monoliths to reduce the risk posed to people and property.

### **Privately Owned Trees Reactive Maintenance**

Under Section 154 of the Highway Act a landowner has a common law duty to take reasonable care to ensure trees outside the highway boundary, but within falling distance, are safe. If this does not happen the Highway Authority has the powers to deal, by notice with hedges, trees and shrubs growing on adjacent land which overhang the highway, and to recover costs.

### **DEVELOPMENT AREA 8: REVIEW OF CURRENT ENFORCEMENT PROTOCOLS**

Derbyshire are currently reviewing its enforcement protocols within the Highways Service.

Currently, if a member of the public or an inspection highlights a safety issue with a private tree affecting the Highway or Public Right of Way then the following actions may be carried out:

- Carry out risk assessment on tree and if criteria met complete the steps below
- Ascertain owner of the land
- Contact owner requesting tree be maintained/pruned. For trees affecting the Highway the owner is normally given 28 days to comply. The minimum notice to be given under the Highway Act is 14 days. Consideration should be given to notice periods during bird nesting season or when protected species are present.
- If after 4 weeks no action taken – contact owner again
- If no action taken issue a formal notice including covering letter, defect schedule, advisory notes and site plan.
- If necessary, Derbyshire have the powers as the Highway Authority to arrange for necessary works to be carried out and then recover costs from the tree owner.

For trees affecting Public Rights of Way the owner will be sent a letter along with a Highway Act 154 notice. The tree will be reinspected after 14 days and enforcement action carried out if required.

Issues raised could relate to any of the following but not limited to:

- Dangerous tree
- Highway obstruction on pavement

### **Reactive Maintenance carried out by the public**

Under common law rights a person may cut back any branch (or root) from a neighbour's tree that overhangs or encroaches onto their property. In cutting back any overhanging branches (or encroaching roots) the following must be observed:

- a. You must not trespass onto the land on which the trees are growing
- b. Branches or roots must not be cut back beyond the boundary in anticipation of them overhanging
- c. Any branches, fruit or roots that are removed must be offered back to the tree owner and carefully returned unless they agree otherwise



- d. All work must be carried out carefully. For example, you should avoid damaging property or carrying out work that would leave the tree unsafe or dangerous to avoid any comeback against yourself
- e. You cannot alter the height of trees or hedges on neighbouring land. While not required under common law, it would be courteous to notify the tree owner of your intentions to help allay any misunderstanding
- f. Please be aware that your common law rights are intended to allow you to carry out the minimum amount of work
- g. If you carry out extensive works and in so doing you make the tree unsafe, the tree owner may have a case against you for criminal damage. You should be especially careful if you are pruning roots. You may wish to obtain qualified arboricultural advice before carrying out any work. If the tree owner agrees to works that are in addition to your common law rights, or if they give you permission to enter their land to undertake the work, it would be prudent to obtain their written consent. If the trees in question are subject to a tree preservation order or are growing in a conservation area then an application (in the case of tree preservation orders) or 'Notice of Intent' (in the case of trees growing in a conservation area) may be required and the following points will apply:
  - The person intending to submit an application or notice must inform the owner of the land on which the trees are growing that an application or notice is to be made
  - The granting of consent in the case of a tree preservation order or the raising of no objection in the case of trees in a conservation area means that the tree work applied for is acceptable in arboricultural and planning terms only. It does not give the person submitting the application or notice an automatic legal right to carry out the work. The question of ownership is a civil rather than a planning issue and the landowner's permission must be obtained in addition to any planning approval
  - Any application or notice relates to the land and the landowner may also carry out the approved works if they so wish
  - If a tree is under 7.5cm in stem diameter then they are exempt from this guidance.

Where the above work is undertaken by neighbouring landowners under common law Derbyshire will;

- Advise they observe provisions under the Wildlife and Countryside Act.
- Advise they employ a qualified tree contractor for any work beyond basic trimming with hand tools at ground level.
- Advise that any works undertaken by them directly will be at their own risk.
- Advise that work should be in line with the British Standard for Tree Works – BS3998.
- Where permission is granted to work on council land, it will normally only be granted to suitably qualified contractors with a minimum of £5million public liability insurance (written evidence of insurance cover will be requested).
- It should be assumed that unless agreed in advance, it shall be the responsibility of the neighbour or their contractor to dispose of any arisings and leave the site

in a tidy condition. (Failure to do so may result in the neighbour being charged for any resultant clearance work).

- It will be the responsibility of the neighbour or a competent contractor to carry out a risk assessment for the site and work being undertaken. Derbyshire may request written evidence of risk assessments in advance of work starting. Competent contractors can be found on the arboriculture website: <https://www.trees.org.uk/>
- Derbyshire reserves the right to stop works on site where they believe work is excessive, damaging or is in breach of government legislation relating to health and safety or the protection of wildlife.

### **Reactive maintenance carried out to address TV signal issues**

Trees can have an effect on TV reception especially when there are leaves on the trees and the weather is bad. Although there is no legal requirement to rectify the issue of loss of television or radio signal due to trees there are options to address the issue.

Initially, if there is an issue, the equipment should be checked as this can be cheaper than tree pruning. An approved installer/satellite engineer will be able to check the following initially:

- The correct equipment is installed and are in good condition and working properly, located properly and securely attached to the property.
- Check there are no other obstruction such as debris in the dish.
- Accurately position the dish for the strongest signal.
- Relocate the dish to a better location if it will improve signal.
- Adjust the direction of the dish to obtain a better reception.
- Install boosters or amplifiers to improve the signal.
- Ensure that there is no interference from other electrical systems and appliances.

Ensure there is no interference from other signals – for example, mobile phones or emergency services.

### **Maintenance of Trees with Tree Preservation Order (TPO)**

If a Highway Tree is subject to a TPO then Derbyshire will abide by the statutory tree protection procedures which can be found in [Appendix C](#).

### **Derbyshire Tree Maintenance and TV Signal**

Derbyshire will not undertake the following maintenance:

- Fell or heavily prune trees for the sole purpose of improving TV reception
- Undertake work where there is doubt that the trees are actually causing the issue.
- Undertake work where there are other options to resolve the issue that have not been carried out.

### **Emergency Reactive Maintenance**

In the event of adverse weather and the need for trees and branches to be removed the [Adverse Weather Policy](#) will be followed.



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## **Planned Maintenance**

Pruning and Felling can be identified as part of planned tree management. Arboricultural guidance should be sought and notification should be carried out as follows prior to any work being undertaken. In accordance with the Environment Act 2021 a local highway authority in England must consult members of the public before felling a tree on an urban road (a “street tree”).

In accordance with the Well-managed Highway Infrastructure Code of Practice Derbyshire may have to consider other engineering options to manage trees that are causing a danger on pavements. These could include closing the pavement entirely and creating a verge and the provision of a dropped crossing, removing a tree entirely or replacing a tree.

Notification guidance can be found in table 3 overleaf.

**Table 3 Notification Guidance**

	*Major works – impacts of locality	*Major works – impacts on individual property	* Minor works – limited visual impact	Tree Preservation Order – Felling or Trimming	Conservation Area – Felling and Trimming	Felling Licence requirements (anything over 5 cubic metres within a calendar quarter)
All residents adjoining site	X					
Parish Council	X					
District Council	X				X	
Local Member	X					
Owner of property adjacent		X				
Planning Permission				X		
Arboricultural Permission			X			
Forestry Commission Permission						X
No notification		X				

\*Major works – felling/pruning of trees

Minor works – remedial/formative pruning

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## 13. BACKLOG

Table 4 shows the costs of trees reactive maintenance in recent years (this does not include Ash Dieback):

**Table 4 Cost of Reactive Tree Maintenance not including Ash Dieback**

2019/20: £98,935

2020/21: £202,884

2021/22: £266,614

2022/23: £241,967

2023/24: £251,404

### **DEVELOPMENT AREA 9: CREATING A ROUTINE PREVENTATIVE MAINTENANCE PROGRAMME**

Derbyshire do not currently prioritise routine preventative maintenance. Consideration should be given to a programme of routine preventative maintenance to avoid future problems. Moving to proactive inspection and maintenance regime can, in the long term save money by cutting complaints, reducing repeat site visits and maintaining tree health to avoid situations where trees become a problem. In addition, proactively creating a diverse age and species distribution in the tree population we would be future-proofing against climate change and disease epidemics such as ash dieback.

### **DEVELOPMENT AREA 10: STANDARDISING DISTRICT AND BOROUGH COUNCIL SERVICE LEVEL AGREEMENTS**

Service Level Agreements need to be reviewed and standardised across all district and borough councils. Some Borough/District councils carry out some tree maintenance on behalf of Highways but there is no standard agreement in place. Each district currently provides a different level of service. Some carry out a broad spectrum of arboricultural services including tree inspection, complaints handling and managing tree work contracts. Others however carry out a very narrow highway tree service where they only carry out pruning to specific urban streets on a cyclical basis. In recent years some districts have not completed all works to the correct timescales which has led to a backlog in works. Until the Service Level Agreements are in place the cost of the backlog cannot be calculated.

## 14. VALUE MANAGEMENT/ENGINEERING APPROACH

### **DEVELOPMENT AREA 11: ADOPTING A VALUEMANAGEMENT/ENGINEERING APPROACH**

Derbyshire would like to adopt a value management approach whereby we take into account the benefits of undertaking maintenance and the risks of not undertaking maintenance which then provides a prioritised list for Value Engineering to ensure we choose the optimal solution to ensure maintenance need is met while reducing waste and inefficiencies.

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The approach would be beneficial for managing the Highway tree population. As with any other asset, routine maintenance can prevent conflicts with residents and infrastructure whilst maintaining a healthy tree population with multiple benefits including climate adaptation e.g. flood prevention, urban cooling and thermal regulation. A proactive management regime can ensure we maximise trees life expectancy and positive contribution to the environment without unacceptable levels of risk.

To create and manage a healthy and sustainable tree population we must think beyond the human lifespan. Trees can provide benefits for several generations and a rolling programme of planting and maintenance should be adopted to avoid age distribution gaps that can take decades to redress. We are currently managing an aging tree population which is gradually disappearing. There has been an under investment in tree planting in recent years, meaning that as the current mature tree population dies or is removed for infrastructure reasons, there is nothing to replace it. The Million Trees and the Derbyshire Heartwood initiatives will go some way to addressing this concern.

An assessment of current and future canopy cover values based on current planting levels would be a starting point. To avoid net loss, increased planting will be necessary and to provide net gain over time, further investment essential. A strategic approach to identifying new and existing opportunities for planting necessary.

Modern tree planting methods can prevent the highways infrastructure damage we are currently experiencing and by adopting a “right tree, right place” approach, future maintenance will become more cost-effective.

## 15. CROSS ASSET CONSIDERATION

When considering financial requirements Derbyshire will consider allocating budget to those assets that require more financial input regardless of where the money was originally allocated. For trees Derbyshire use the Capital Asset Valuation of Amenity Trees (CAVAT) to place a monetary value on trees so we can make an objective decision for management based on cost – benefit analysis principals.

### **DEVELOPMENT AREA 12: CONSIDERATION OF THE USE OF NEW SOFTWARE TO CALCULATE THE WIDER SOCIO- ECONOMIC BENEFITS OF OUR TREE POPULATION**

We will explore options to add a value to our highway trees in regard to socio-economic benefits. This will involve looking at what software is available which provides the methodology to calculate the wider socio-economic benefits of our tree population.

## 16. FORWARD PROGRAMME

There is not currently a forward programme in place for trees.

## 17. ANNUAL PROGRAMME

### **DEVELOPMENT AREA 13: ANNUAL PROGRAMME FOR EXISTING TREES**

There is need to consider the creation of an annual programme for the management of existing trees in Derbyshire.

## DEVELOPMENT AREA 14 ANNUAL PROGRAMME FOR NEW TREES

There is need to consider the creation of an annual programme for the management of new trees in Derbyshire.

### 18. RISK REGISTER

A risk can be defined as an uncertain event which influences the desired performance of an asset. A risk factor is the produce of the severity of an event and the likelihood of its occurrence. Derbyshire County Council has a well-established risk management process that overarches all service areas.

The risk management process concentrates on four main issues, by applying these risk management principles, the council will be able to more appropriately target resources and to deliver services and projects in a way that ensures the council's overall exposure to risk is minimised.

The following risk register identifies risks and appropriate mitigation measures

**Table 5: Risk Register**

<b>Risk Level</b>	<b>Identify Risks</b>	<b>Evaluate Risk</b>	<b>Manage Risk</b>
Strategic	Understanding the Asset	The absence of asset information compromises the ability to provide lifecycle planning and consider budgetary allocations.	Identify the current state of the tree assets to enable lifecycle planning and budgetary allocations.
	Budget Concerns	The absence of relevant finances will mean tree assets deteriorate compromising the safety of the road users, neighbouring property and damage the infrastructure surrounding the highway.	a) Budget management and apply for additional funding where feasible. b) Lifecycle Planning c) Budget Management
	Climate Change	Climate change can increase Deterioration causes, affecting the lifecycle of some assets and their components meaning intervention will be required sooner than expected.	Lifecycle planning/ inspections to encompass climate predictions.

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## **DEVELOPMENT AREA 15 IDENTIFYING HIGH RISK LOCATIONS**

In accordance with the Well-managed Highway Infrastructure guidance Derbyshire should consider how our inspection and maintenance regimes could identify high risk locations. This could be based on the backlog information Derbyshire already have.

## **19. COMPETENCY AND TRAINING**

All inspection procedures, toolbox talks and risk assessments are reviewed, updated and then trained on an annual basis. The departmental code of practice is reviewed on a five yearly basis. A guide for highway inspection has been written to standardise inspection activities. Inspectors should have basic arboricultural training. A PROW inspection manual is currently being prepared to provide written standardised inspection activities.

Where specialist arboricultural inspectors are required, they must have been trained and passed the LANTRA Professional Tree Inspection (PTI) standard as a minimum. Refresher training for PTI is recommended on a 5 yearly basis.

All competency and training requirements are summarised within the skills matrix and managed through the Derbyshire County Council Competency System.

### **DEVELOPMENT AREA 16: THE CREATION OF AN ARBORICULTURAL INSPECTORS SKILLS MATRIX**

A skills matrix should be set up to explain what qualifications and experience Derbyshire's arboriculture inspectors should have.

## **20. PERFORMANCE MANAGEMENT FRAMEWORK**

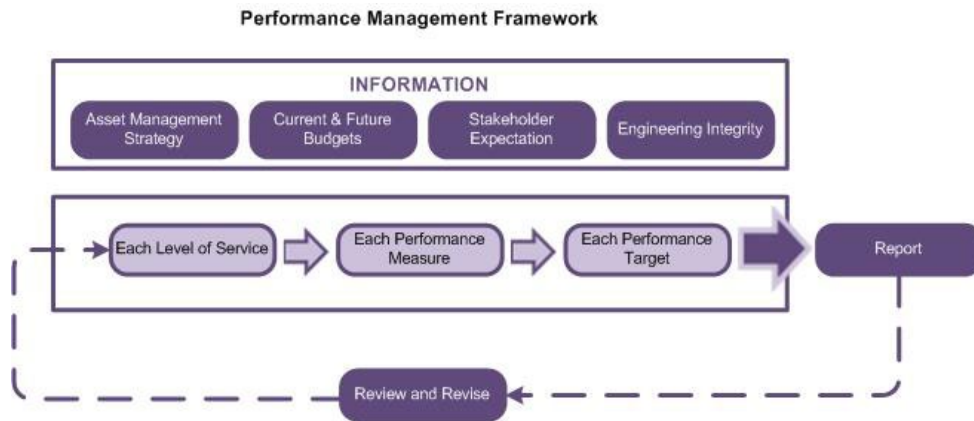
The Performance Framework is used as a tool to inform, measure, review and drive the management and decision-making processes associated with implementing corporate changes and day-to-day decisions relating to the delivery of services, linked to the network hierarchy. The figure below shows the performance management framework.

It is not intended that the Council creates a host of measurements that serve little purpose other than to demonstrate the presence of a framework. At any level, external-facing performance measures should show how well services are being delivered and whether objectives are being achieved.

Internally, a range of input and output measures may be used for monitoring purposes, but the key indicators should reflect performance in key service areas to inform senior managers as well as corporate and stakeholders of the service as a whole.

The Performance Management Framework diagram is shown overleaf:

## Diagram 2: Performance Management Framework



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The table below shows the performance measures and targets for carriageway:

**Table 6: Performance Measures**

	<b>Level of Service 1</b>	<b>Level of Service 2</b>	<b>Level of Service 3</b>
	<b>Resilient Network</b>	<b>Network Hierarchy 5</b>	<b>Network Hierarchy 6 - 7</b>
	<b>And Network</b>		
	<b>Hierarchy 1 - 4</b>		

### **Safety Performance Measures**

Percentage of  
outstanding  
workload  
responded to within  
timescale

Urgent	100%	100%	100%
28 days	80%	80%	80%
3 months	80%	80%	80%
12 months	80%	80%	80%

### **Serviceability Performance Measures**

Inspections completed within timescale	75%	75%	75%
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### **Sustainability Performance Measures**

Percentage of trees felled that have been replaced	100% *	100% *	100% *
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### **Customer Service Performance Measures**

Ad-hoc inspections completed within timescale	75%	75%	75%
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\*If a tree is removed from the highway a replacement tree will be planted, although this may not be in the location of the removed tree due to technical and environmental constraints.

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## 21. COMMUNICATIONS

All information relating to communication is contained with the [Highways Communications Plan](#).

## 22. CLIMATE CHANGE ADAPTION AND CIVIL EMERGENCIES AND SEVERE WEATHER EMERGENCIES PLANS

All plans relating to this area of work are included on the [Derbyshire Prepared](#) website and Derbyshire have taken or are taking action against all of the recommendations raised in the 2009 3 Counties Alliance Partnership The Effects of Climate Change on 3CAP's Highway Network Policies and Standards.

The corporate climate change strategy can be found [here](#).

## 23. HERITAGE AND CONSISTENCY WITH CHARACTER

Generic information that will relate to all assets and crosses HIAM Part 2 therefore can be found in the Sustainability and Environmental part of the [Highway Network Management Plan](#).

## 24. CARBON REDUCTION

Generic information that will relate to all assets and crosses all HIAM Part 2 documents and therefore are included in the corporate [Carbon Reduction Policy](#).

## 25. ENVIRONMENTAL IMPACT, NATURE CONSERVATION AND BIODIVERSITY

Generic information that will relate to all assets and crosses HIAM Part 2 therefore can be found in the Sustainability and Environmental part of the [Highway Network Management Plan](#).

## 26. SUPPLY CHAIN COLLABORATION AND COLLABORATION IN SERVICE DELIVERY

Highway trees work are carried out by a combination of Property Services and Highways Construction Services. The Service Level Agreements with district and borough councils need reviewing as detailed in Development Area 10.

## 27. DELIVERY

Highway trees work are carried out by a combination of Property Services and Highways Construction Services. Works are also carried out by district and borough councils and this is further discussed in Development Area 10.

## 28. PROCUREMENT

Tree works are procured inline with the corporate procurement framework. This includes the provision of emergency and planned works. Additional ad-hoc surveys are procured through the normal Derbyshire tender process.

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## 29. OPERATIONAL POLICIES

Operational Policies are covered in the [Highway Network Management Plan](#).

A design guide has been written to cover Highways works and Development Area 2 will lead to an update to this document to support the planting of trees in the highway.

## 30. APPENDICES

### Appendix A Development Area Breakdown

Development Area	Action Taken
1. Formalisation of Inspections and Routes	
2. Internal guidance for advising on new trees	
3. Creating a dataset of trees that have had works carried out on them	
4. Creating the tree inventory from district/corporate property data	
5. Regular inventory update	
6. Developer Trees	
7. Improving the inspection process and follow-up protocols for higher risk trees	
8. Review of Current Enforcement Protocols	
9. Creating a routine preventative maintenance programme	
10. Standardising district and borough council service level agreements	
11. Adopting a value management/engineering approach	
12. Consideration of the use of new software to calculate the wider socio- economic benefits of our tree population	
13. Annual Programme for Existing Trees	
14. Annual Programme for New Trees	
15. Identifying high risk locations	
16. The creation of an arboriculture inspector's skills matrix	

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## Appendix B: Bibliography for how trees are selected

Landscape Character of Derbyshire Assessment

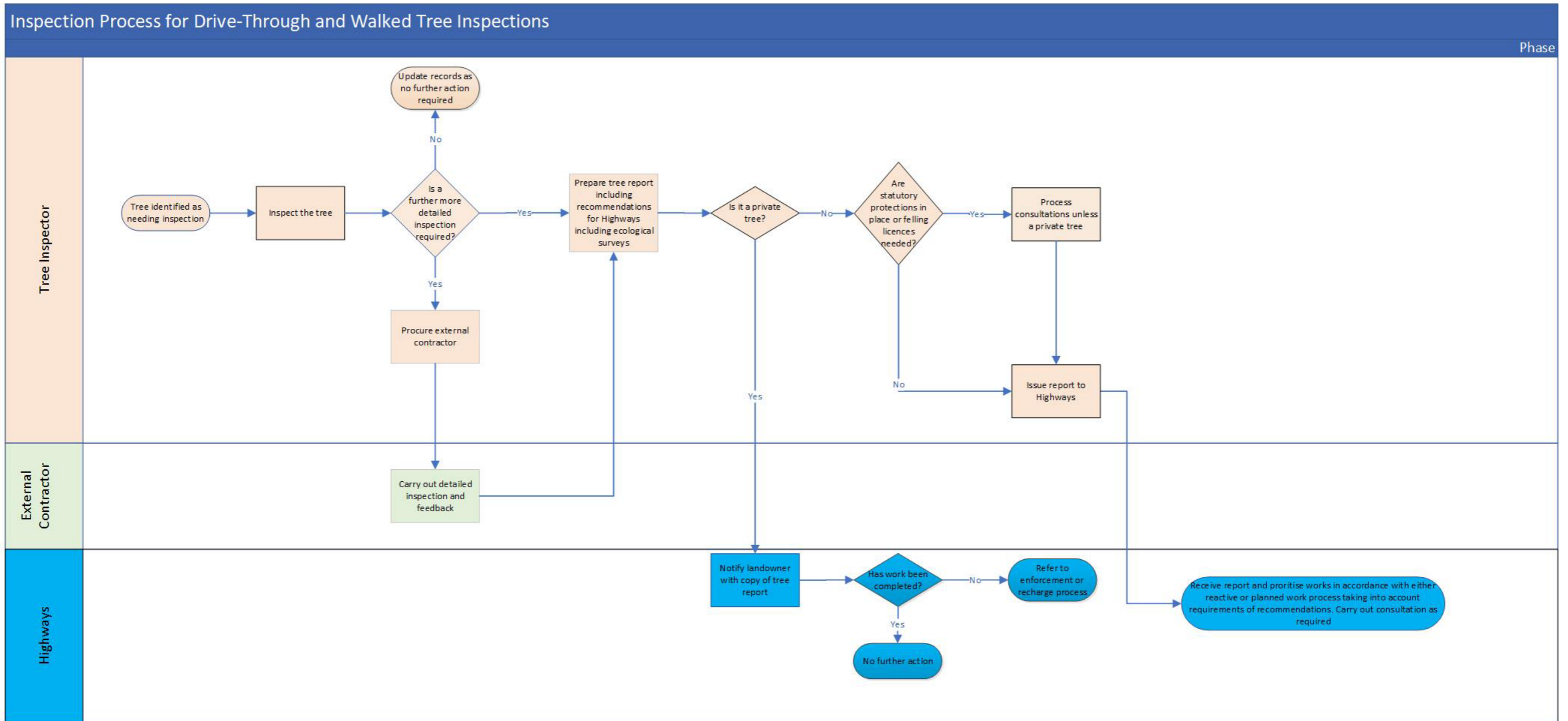
[Landscape character - Derbyshire County Council](#)

Tree Species Selection for Green Infrastructure: A Guide for Specifiers

(<https://www.tdag.org.uk/tree-species-selection-for-green-infrastructure.html>)

A link for internal guidance for staff advising developers and members of the public on planting new trees on the highway will be added once [Development Area 2](#) is completed

Appendix C: Processes and Procedures



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