

TREE MANAGEMENT STATEMENT

Street Scene Services



PLYMOUTH
CITY COUNCIL

DOCUMENT CONTROL

Author: Gareth Harrison-Poole
Department: Street Scene Services
Distribution:
Review date; October 2012

DOCUMENT HISTORY / CHANGES

Version 1.0	Gareth Harrison-Poole	20 Aug 2012	Set up original document
Version 1.1	Gareth Harrison-Poole	05 Sep 2012	Changes made following comments by NMaker
Version 1.2	Gareth Harrison-Poole	11 Sep 2012	Changes made following internal comments. Section numbers added
Version 1.3	Gareth Harrison-Poole	09 Oct 2012	Hedgerow section added. Changes made following internal comments
Version 1.4	Gareth Harrison-Poole	22 Jan 2013	Minor changes made following internal comments
Version 1.5	Gareth Harrison-Poole	07 Mar 2013	Hedgerow section amended
Version 1.6	Gareth Harrison-Poole	07 Mar 2013	Appendix 2 added
Version 1.7	Gareth Harrison-Poole	19 Sep 2013	Minor changes to priorities following internal comments

DRAFT

1.0 Introduction

This tree management policy is designed to provide a framework for the management of trees owned and managed by Plymouth City Council. It sets out the guiding principles for managing our tree stock, for guiding arboricultural management decisions on all Council owned and managed tree stock.

Trees enhance the quality of life in the urban environment and form an important part of its diversity. They contribute to our health and well being and enhance the enjoyment of the city.

2.0 Aims and Objectives

These overall objectives will be achieved by implementing and continuously developing the management statements contained in this document.

The policy statements have been formed to ensure that the large range and benefits of Plymouth's tree stock are all considered and provide a framework for effective management.

3.0 Aims

- carry out regular inspections to identify problems early and take preventative action, example, felling of dead, diseased or dangerous trees in high traffic areas before it falls naturally;
- retain trees unless there are external influences on arboricultural, environmental, or risk-related reasons not to do so;
- grow a wide range of tree species through our planting programmes;
- where necessary proactively manage our trees based on maintenance cycles ranging from 1 - 5 years depending on age, distance from property, species, health and other arboricultural factors;
- not remove or prune trees for the following reasons:
 - I) Seasonal nuisance, to reduce leaf fall and berries or honeydew
 - II) To reduce activities of birds or invertebrates
 - III) To change natural light levels
 - IV) To improve TV reception for satellite or improve vistas
 - V) To enable solar panel installation

4.0 Objectives

To manage the tree resource, through best technical practice for the multiple aims of landscape, biodiversity, conservation, amenity and environmental benefits.

To guide elected members, employees, contractors and residents on the management principles for Plymouth's tree stock.

5.0 Tree types

5.1 Street trees

Street trees are defined as planted and growing in pavements and road verges along the city's highway network.

Street trees are beneficial to the city, they help to filter traffic pollution, and they can provide shade to car parking and pedestrian passage. A tree-lined street will improve the appearance of a street. In most cases property value is increased with street trees.

5.2 Trees in parks

Trees growing in the city's parks and green spaces, including cemeteries are the most significant in terms of providing visual amenity and valuable in providing leisure extensions. If the tree cover is to survive, their high value will remain in perpetuity from the benefits derived from a sustained high quality management programme.

5.3 Trees on non PCC land

Private tree owners have a direct responsibility for their trees. However The Highways Act 1980 allows the Plymouth City Council to serve notice on a landowner (or occupier of the land) to undertake specified works or works as necessary to remove a danger or obstruction, within 14 days of the serving of the notice. Failure to do so would result in the Local Authority being able to undertake the work and recover all reasonable costs in undertaking the work. The Local Authority also have powers under the same Act to enter private property with no notice to remove any severe or imminent threat from a tree in land adjacent to the highway. This would be instructed as part of the duties of the controlling authority to take action to remove any danger to the highway.

TMS 1

The Council will not carry out general tree work on private property at our own expense. Any tree works carried out on land not owned by us will be a chargeable service.

The Council will prosecute any tree owner who carries out or allows another to carry out on his/her behalf unauthorised works to a tree protected by a Tree Preservation Order or within a Conservation Area.

5.4 Trees in woodland

The Council is keen to ensure that woodland management across the Plymouth is consistent and that knowledge and examples of best practice are shared between the different organisations responsible for woodlands.

As a local authority with a duty of care to residents and visitors to the city there is a need to implement and continually develop a risk-based approach to tree maintenance.

There is a growing need for the Council to provide accurate information on all of its assets, to show transparency in local government processes. One of the ways we meet this is through independently verified management systems. Our Street Scene Services Department is certified to BS EN ISO9001:2009 and this must be reflected in our overall approach to managing trees in the urban environment.

6.0 Risk Management

6.1 Principles of tree risk management

Tree risk management is a systematic and proactive approach that prioritises work based on potential risk of hazardous trees. This assessment method provides an efficient process for establishing an inspection schedule and methods, and enables the prioritisation of works based on perceived risk.

TMS 2

The Council will carry out regular inspections of trees in parks and open spaces.

6.2 Tree work priorities

Each tree or groups of trees that have been inspected will be given a category based on the ground inspection information (ascertained through the application of VTA or QTRA) and the level of risk they pose to the general public.

TMS 3

The Council will only carry out tree work based on its listed priorities.

These priority categories are documented below-

Priority 1 – Dead, dying or dangerous trees. Trees in this category warrant work to make safe within 3 months.

Priority 2 – Tree(s) that are showing signs of decay or stress. These trees will be monitored for further decline but do not warrant work to be undertaken immediately including trees that need to be pruned or felled in relation to insurance claims

Re-Inspection – Tree(s) that are causing an issue to a resident or residents (such as dropping leaves/sap on cars or creating shade). These trees fall outside of Priority categories 1 and 2.

6.3 Risk management procedure

A proactive tree management system is coupled with scheduled tree inspections to identify and mitigate future incidents. Plymouth City Council uses a systematic process that utilises tree assessment and management works based on levels of risk.

TMS 4

The Plymouth City Council will programme tree inspections and management works to ensure the health and safety of trees is maintained and the potential for tree-related damage is kept to a reasonable minimum.

Tree risk zones are classified as High Risk, Moderate Risk and Low Risk, to show how these areas are to be treated in relation to the type and timing of scheduled tree inspections. The 'risk zone' determines the timing of scheduled tree inspections and is shown in table 1. The method of scheduled inspection will also vary depending on the risk zone and type.

The process for tree inspection includes a ground inspection to evaluate if there are any trees that are hazardous and require maintenance works or additional inspection. This inspection would be recorded on Plymouth City Councils Tree Management database. This incorporates the identification of the existing tree problem (if any) and stipulate any remedial action necessary based on best practice to address the specific issue.

Further to this the following information is gathered to ensure sufficient information to allow for relevant monitoring and decision making -

- Inspection date and officer
- Location
- Species
- Age
- Tree measurements; height, canopy spread and trunk diameter
- Condition and health of the tree
- Any defects, i.e. damage to stem or limbs, decay
- Work history
- Recommendations

The inspections will generate maintenance works that will be prioritised (see Section 6.2 for priority descriptions).

Determining the level of risk is based on public use and tree within public area, which could be considered to be low, moderate or high the tree characteristics, including tree condition, species characteristics or age, and location factors and further considerations, the presence of known 'problem' species and declining tree populations.

Table I presents the risk classification, inspection schedule and method of inspections.

Table I: Tree risk categories and inspection schedules

Risk Zone Category	Location
High Risk	<p>High-use parks and sport grounds and high use areas within a park; Playgrounds Buildings Shopping precincts Tree's on the annual monitoring list School playgrounds – Where PCC are contracted to do so Street trees with very high-risk tree characteristics such as:</p> <ul style="list-style-type: none"> - tree roots causing severe pavement buckling - Close to buildings - Overhanging bus routes <p>Main thoroughfares: congested intersections and visually obstructed traffic signs and stoplights and street lights.</p>
Moderate Risk	<p>General parks Parking areas/Car Parks Minor roads</p>
Low Risk	<p>Low use public areas within dispersed recreation, e.g., Open areas, Nature Reserves, playing fields</p>

(Note – the location list is not exhaustive)

6.4 Tree risk assessment method

Tree inspections will be carried out by qualified and experienced arborists that can demonstrate good judgement by their arboricultural knowledge and experiences of tree assessment methods on tree condition, location, land use and perceived risk. The main principles of tree assessment are the Visual Tree Assessment (VTA) method and the Quantified Tree Risk Assessment (QTRA).

The VTA is a method of evaluating the structural condition, health and stability of a tree. The first stage is the visual inspection of the tree for defect, symptoms and vitality. If a defect is suspected on the basis of the symptoms, thorough examination is carried out. If the defect is confirmed remedial action will be carried out to reduce the risk the tree or limb poses.

The Quantified Tree Risk Assessment (QTRA) system applies accepted risk management principles to tree safety management. The system can assist the identification of acceptable risk levels and priority for action.

Tree risk assessment methods generally consider three components of tree failure: risk-target value, probability of failure, and impact potential.

Tree hazard is able to assess and quantify the risk, therefore the risk can be kept within acceptable or reasonable limits with appropriate risk control measures. The assessment of tree hazards will enable managers to operate and actions can mitigate the tree risk to a minimize level.

TMS 5

The Council will classify the tree risk zones and undertake inspections and subsequent tree work based on risk.

6.5 Ground inspections

Ground inspection can be applied for scheduled tree inspections. The method can also be adopted to execute more detailed street tree inspections. These could be grouped into two types, informal and routine.

Informal: A quick scan by to pick out a tree with an obvious warning sign after reports of damage or following significant storms

Routine Programme: Individual tree inspection to pick out obvious warning signs and completing the inspection checklist

6.6 Specialised diagnostic tools

Tree risk inspections provide a systematic method of assessing tree by evaluating the level of risk trees will cause hazardous to public safety occasionally visual inspection is insufficient to evaluate all probability of tree failure. In-depth inspections and the use of specialized diagnostic tools maybe required.

Decay assessments determine the location and extent of decay exist in a tree to assess the structural integrity of the tree. The outer shell of sound wood is measured to ensure safe limits are met and the tree does not pose an unacceptable

level of risk. The use of specialised diagnostic tools will only be used in extreme cases where the qualified arboriculturalists can not ascertain sufficient information about the health of a tree from a ground inspection.

6.7 Ancient trees

We recognise the importance of mature and ancient trees and will balance safety with our duty to protect the environment. Higher levels of risk will be acceptable in areas of lower footfall (e.g. the middle of a woodland site) as opposed to highly visited areas (e.g. play areas). This will allow us to keep veteran trees to encourage biodiversity without creating undue risk.

6.8 Method of review

Plymouth City Council Street Scene Services department is certified to BS EN ISO 9001:2009 (Risk Management) and this must be reflected in our overall approach to managing trees in the urban environment. The tree risk management program will be reviewed every four years. The process will include reassessment of classification into risk zones, and evaluation of the tree inspection and assessment methods and recording processes.

7.0 Tree Removal

Plymouth City Council will seek to avoid tree removal wherever possible. The potential risk of a tree is related to the tree size and structure that increase the opportunities of tree failure. Public safety is the first consideration on tree removal request. Due to safety reasons, the action should be to reduce the high risk to an acceptable level or mitigate it through treating the tree or removing the tree. All tree management options will be investigated prior to the recommendation for removal.

Plymouth City Council will only remove trees if the following reasons exist:

- A tree is dead, dying, diseased or dangerous
- A tree is seriously infected with a fungus or a disease or fungus which threatens to spread to other trees
- The tree has caused damage to property, roads and buildings or is likely to cause damage to adjacent structures & underground services where pruning is not a viable option
- A tree severely interferes with adjacent tree or tree group to the extent with fully potential development.
- The tree is a species which it is known will ultimately outgrow its location and in doing so unreasonably restrict the use of the areas
- Trees that are proven to be the cause of subsidence by qualified professional arborist
- The tree stands in the way of agreed development work via Plymouth City Council's Planning Committee

TMS 6

In case of tree disease outbreak, we will provide advice and information regarding control and prevention methods to private tree owners, in line with national guidance and advice.

Where birds are found to be nesting in trees, tree works will be delayed until the end of the nesting season unless there is a specific Health and Safety reason that requires urgent remedy. Any trees identified and confirmed to be supporting roosting bats will not be worked on until advice is sought and remedial action agreed.

TMS 7

The Council will not carry out tree removal in direct response to any natural or seasonal phenomena.

Plymouth City Council will not carry out tree removal for the following reasons:

- Natural and seasonal phenomena as leaf fall as berries, honeydew;
- Emission of sunlight or man made lighting during any part of the day;
- TV or satellite signal reception;
- Blocking or obstruction of a view from a residence

7.1 Tree removal associated with infrastructure improvements

When tree removal is to facilitate the construction of new infrastructure or the maintenance of existing infrastructure a consultation process is sought with the relevant stakeholders to ensure the tree work is warranted and carried out minimise the impact on the treescape.

Plymouth City Council will work with developers to ensure the value of trees in developments are championed and any existing trees in planned development sites are protected. If tree removal is warranted by planned new development Plymouth City Council will ensure the trees are relocated and/or replaced with appropriate species.

7.2 Unauthorised tree removal

If a Council managed tree or group of trees is removed by any person or authority without Council authorisation, that person may be required to pay the full cost of tree reinstatement for tree purchasing, tree planting and a minimum two-year tree maintenance period of the tree.

TMS 8

Under the Town and Country Planning Act (1990), Plymouth City Council has responsibility to protect certain identified trees under Tree Preservation Orders. Our planning officers can protect the tree from lopping, topping, cutting down or willful damage.

8.0 Procedures for Tree Work Requests

8.1 Tree work requests

Tree work will only be carried out following the inspection from Plymouth City Council's qualified tree officers or approved qualified contractors. Residents may ask for an inspection by contacting Plymouth City Council and the tree officer will be scheduled to inspect the tree(s) if it is warranted. All tree inspection requests shall be recorded and then inspected and assessed by a suitably qualified person. All tree work should be carried out to BS 3998 (2010) Tree Work recommendations.

8.2 Approvals

All approvals for tree removal shall be authorised by Plymouth City Council. Tree work requests will be rejected if the tree(s) do not meet one of the criteria listed in section 7.0.

8.3 Out of Hours

Plymouth City Council operates a 24hr on call service and we have a selection of tree maintenance contractors available to operate within the city out of office hours if the

9.0 Tree Selection, Planting and Replacement

9.1 Tree selection

An appropriate planting site and tree selection can have the following benefits:

- Mitigate conflicts between tree roots and adjacent buildings /property and road surface;
- Reduce the occurrence of tree disease through selecting resistant type of trees ;
- Reduce maintenance cost of tree pruning and root protection;
- Reduced tree demand like tolerances of drought in urban environment;
- Attractive streetscapes that emphasize the landscape and architectural character

TMS 9

The Council will create a varied and sustainable tree population in parks and open spaces.

Plymouth City Council will take consideration of plant tolerances and adaptability in tree selection for all planting schemes. Based on the principles of 'right tree, right place', appropriate tree selection can minimize nuisance and maintenance cost.

Tree selection will need to consider:

- Ecology considerations of tree diversity, maintaining and the opportunity for contributing to local biodiversity
- Availability, concerning the space available and potential size and numbers of tree planting programme
- Functional and spatial considerations that relates to the tree root system and limited impact on adjacent buildings /property, pavement damage.
- Ground conditions (in particular soil type and drainage), relates to a trees ability to tolerate urban conditions
- Health considerations, select low levels of toxic or allergenic characteristics of tree species
- Aesthetic considerations for enhancing the visual amenity of a streetscape or area
- Historic associations and the opportunity for new tree planting to reflect historic planting patterns

General guidelines for tree selection:

- Native tree species will be given priority for tree planting.
- Species will be selected that can maintain spatial constraints within a street, e.g. pedestrian and vehicle clearances, overhead power line clearances, root volume restraints and hard surfaces.
- Select tree species that have moderate to high tolerance of stress relating to climatic suitability, soil oxygen levels, soil compaction, drought, pest and diseases, high wind and atmospheric pollution.
- Priority will be given to tree species that do not need additional establishment to keep in safe and aesthetically pruning practices. Tree species that can cause damage to property/buildings will be avoided.
- Using tree species that are known to have low or manageable litter drop, such as leaves, flowers, fruit and bark.

9.2 Tree planting guide

Plymouth City Council will seek to ensure that all new tree planting is planted in a suitable location with tree pit (if necessary); appropriate size, ground preparation, staking, irrigation and protection. The choice of tree species will need to take into consideration local conditions including the space available, soil type, street character and presence of services.

TMS 10

The Council will select species based on the principles of ‘right tree, right place’. When selecting trees for planting in the street, the council will select the appropriate species and location. Specification of all new tree planting by the Council or partners is approved prior to implementation in the tree planting programme.

9.3 Tree pit

If trees are being planting in a built up area adjacent to development or infrastructure, tree pits may be required to be used. Prior to planting the excavation works will need to be inspected by a qualified arboriculturist.

Tree pit location and specification will need to consider:

- Type of surface
- Ground conditions (e.g. soil type, pH and drainage)
- Space available for the tree pit
- Presence of street lights
- Proposed tree species
- Shape of tree pit

9.4 Tree root barrier

Root barriers are used to prevent or reduce conflicts between tree roots and adjacent buildings. Barriers provide deflection of lateral growing roots down below the depth of the barrier or constrict them within a designated area.

The type and size of tree root barriers installation will be determined by assessing the factors shown below:

- Tree species
- Tree age
- Tree condition
- Relative tolerance of tree to root severance
- Distance available for root pruning
- Potential of tree root conflict
- Soil type
- Distance from tree to infrastructure
- Significance
- Feasibility

10.0 Trees and the Environment

10.1 Biodiversity

Tree’s and woodland’s, including traditional orchards, are very important to the city in terms of providing a wide range of habitats and biodiversity for a large range and

variety of mammals, birds and invertebrates. Trees make a contribution by acting as food source, nesting location, roost sites and as links between otherwise fragmented habitats.

Tree, woodland and orchard planting provide important chances for enhancing biodiversity in Plymouth. Native trees provide wildlife habitat for nesting / foraging opportunities, and cover for birds from predators. Orchards are hotspots for biodiversity supporting a wide range of wildlife and containing UK BAP priority habitats and species, as well as an array of Nationally Rare and Nationally Scarce species. Trees also provide roosts, commuting routes and foraging opportunities for bats.

TMS 11

The Council will ensure that its woodlands are managed as a long term sustainable resource for the public, for education and for nature conservation and biodiversity. The Council will encourage expansion of the urban woodland in appropriate locations ensuring layout and selection of native species of local provenance to reflect the local woodland character.

The UK Biodiversity Action Plan was produced in 1994 and sets out action plans to identify, conserve and protect existing biological diversity in the UK, and identify opportunities for enhancement. Target habitats include wet woodland, neutral grassland, ancient hedgerows and Traditional Orchards. The creation of such is widely supported and encouraged throughout Plymouth ensuring planting schemes have community involvement and are suitable and sympathetic for the local area.

TMS 12

The Council will allow to remain *in situ* any dead or felled trees in order to create wildlife habitats. The Council will manage woodland to fulfill its obligation as owners to ensure safety of people and property whilst remembering that woodlands are natural places and the level of acceptable risk must reflect this. Trees within our woodlands will not be felled without adequate arboricultural or legal justification. Where appropriate the Council will ensure standing dead and fallen wood is left on site unless there are sound conservation and / or safety reasons for its removal. Natural regeneration will be supported on appropriate sites.

10.2 Climate change

Climate change is the biggest issue facing the world and threat to the presence of trees in urban areas. The Forestry Commission has noticed that the climate of the UK will become milder and wetter in winter, and significantly hotter and drier in the

summer periods in the coming years. As a result of this, trees are likely to experience drought stress in the summer and will be more easily affected by pest and disease.

TMS 13

Correct species selection during new planting schemes will prevent planting tree species that are intolerant to climate change.

11.0 HEDGEROWS

Hedgerows play an important role in the city providing shelter, creating landscape features and defining boundaries. They also provide an important habitat for wildlife and are often seen as defining the character of the English landscape.

Many hedges and trees grow on the edge of the highway and mark its boundary with private property. In such cases it is the responsibility of the adjacent landowner or occupier to properly maintain them. This also applies to trees that overhang the highway or those which may fall on to it. Plymouth City Council will maintain all hedgerows growing within the highway limits.

11.1 Maintenance

Maintenance on Plymouth City council owned hedges is carried out usually twice a year. Inspections are also carried out twice a year (During February/March & the end of May /beginning of June) any work resulting from the inspections will be actioned by the end of the coinciding inspection periods (end of March and beginning of June). This removes the initial early growth to stop summer growth over growing paths and roads.

Inspections on private hedges are also carried out twice a year by Plymouth City Council's highway contractor (During February/March & the end of May /beginning of June). Any work resulting from the inspections will be programmed for Street Scene Services to action by the end of the coinciding inspection periods (end of March and beginning of June). This removes the initial early growth to stop summer growth over growing paths and roads. Plymouth City Council's highway contractor will seek to claim back the cost incurred.

Autumn/winter maintenance requires all three sides to be cut back (if warranted) to ensure hedges do not outgrow their location. The general accepted standard for hedgerow maintenance is to remove all vegetation back to last year's growth point.

Please see Appendix 2 for flow diagram detailing the process in more detail.

ACTION PLAN

Action No	How we are going to do it?	How will we know we have been successful?	Timescale for action	Priority	Responsibility for delivery
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					

APPENDIX I: BENEFITS OF TREES

Trees provide a vital benefit to the city. Trees planted in the city help to make life more pleasant for residents and visitors, their presence can help towards creating tranquillity and help reduce stress. Trees have many benefits, for example, they:

Provide shelter - Trees reduce wind speed around buildings. Dappled shade from trees provides a useful barrier from ultra violet radiation.

Cool the air - Trees regulate evaporation, provide shade and absorb heat. Trees release oxygen into the air.

Stabilise soil - Soil erosion on areas where there are no trees is up to one thousand times greater than a tree covered area.

Filter air pollution - Trees act as filters to remove particulate pollution deposited on leaves. Trees remove carbon dioxide from the air. Trees planted close together can absorb noise provide sonic barrier.

Create wildlife habitats - Trees of varying ages provide a wide range of habitats and biodiversity for a large range and variety of mammals, birds and insects.

Improve the landscape - The presence of trees provides a softening effect to built structures and the built environment. Trees can form backdrops to urban settings to improve people's enjoyment of the city's landscape and form a visual screen.

**APPENDIX 2: PLYMOUTH CITY COUNCIL STREET SCENE SERVICES
PROTOCOL WITH PLYMOUTH TRANSPORT & HIGHWAYS/AMEY**

