CABINET – 12 JULY 2014 **PORTFOLIO: ALL**

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NEW FOREST DISTRICT COUNCIL TREE MANAGEMENT STRATEGY

1. INTRODUCTION

1.1 This report sets out a draft of the Council's first ever Tree Management # Strategy and Risk Management Strategy, as detailed in Appendix 1.

1.2 It is best practice for New Forest District Council have a tree strategy in place, to set out how NFDC will manage the risk from trees to meet its legal duty of care in a reasonable manner. It also sets out a framework for the proactive management of the NFDC tree resource to maximise the benefits to local communities and manage potential conflicts/threats in the future.

1.3 The Council's first Tree Management Strategy and agreed maintenance regimes and inspection practices will assist in safeguarding the Council against insurance claims and will set out guidance for the NFDC approach to tree related enquiries and complaints. It will also address tree replacement and planting programmes to ensure that tree cover in the district is maintained and increased, along with other key issues such as climate change.

1.4 The new Tree Management Strategy links to the Council's Corporate Plan 2012-16 "Delivering for our Communities" with the following aims:

- Improving service to the customer
- Managing all our resources efficiently
- Maintaining excellent performance in the delivery of services
- Developing effective partnerships with other local organisations

2. MEMBERS WORKING GROUP

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2.1 A working party of members was set up to review this first draft of the Tree Management Strategy. The members involved were

Cllr Steve Clarke - Chair
Cllr David Harrison
Cllr Alison Hoare
Cllr Sophie Beeton
Cllr Sue Bennison

2.2 The working party agreed terms of reference which was;

a. To formulate and agree a tree strategy for trees owned by New Forest District Council.
b. To identify the risks and implications, as well as the financial implications, of a new strategy.
c. To identify a sustainable policy for the management, replacement and procurement of trees.
d. To identify sustainable methods of arboricultural management, taking special notice of pest and disease implications.

e. To identify and consult with relevant stakeholders to ensure that the strategy does not conflict with other tree management regimes in the district.

2.3 Members of the task and finish group also identified additional areas that they wanted reflecting within the document. These were:

- Hedges
- All trees managed with the control of NFDC but budgets controlled by individual departments
- Consider how to ensure that there will be balanced succession for mature and veteran trees.
- Care of trees on private land

Members also suggested that guidance from other well written strategies is taken.

3. CONSULTEES

3.1 The following consultees were agreed:

- New Forest National Park
- Hampshire County Council
- The Forestry Commission
- Our planning authority
- Heads of service for Housing and Open space and the Open Space Working Group.

4. FINANCIAL IMPLICATIONS

4.1 None of the actions within the strategy will have a impact on the current financial budgets for tree maintenance. The council will be able to deal with insurance and compensation claims in a more robust manner if the processes and procedures identified within this strategy are followed. The steps set out in the strategy will increase the nominal value of the councils tree resource with multiple benefits to the local community.

5. CRIME AND DISORDER IMPLICATIONS

5.1 None.

6. ENVIRONMENTAL IMPLICATIONS

6.1 One of the most important aims of the Tree Management Strategy is to improve the environment in the New Forest. Improvements to tree care and inspection will all have positive benefits for the local environment. The strategy aims to take a more proactive approach to the management of the tree stock which will focus on enhancing the biodiversity value of trees and woodlands under council ownership.

7. EQUALITY IMPLICATIONS AND DIVERSITY

None.

8. CONCLUSION

The Council's first Tree Strategy has been written based on best practice and with reference to good examples of local authority tree management both locally and nationally. The working Party and Officers have reviewed other relevant strategies and compiled a document that is fitting for the District of New Forest.

9. ENVIRONMENT OVERVIEW AND SCRUTINY PANEL'S COMMENTS

The Environment Overview and Scrutiny Panel, at their meeting on 12 June 2014, warmly welcomed the draft Tree Management Strategy and Tree Risk Management Strategy, which represented best practice for the treatment of the Council's tree assets across its land ownership. The Panel commended the Strategies to the Cabinet for adoption.

10. LEADER'S COMMENTS

These are useful documents, which will contribute to co-operation with town and parish councils, through the New Forest Association of Local Councils, on the management of tree assets; and also encourage best practice for tree management throughout the District.

11. RECOMMENDATION

That the Tree Management Strategy and Tree Risk Management Strategy, as attached as Appendix 1 to this report, be adopted.

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Background Papers:

Attached

New Forest
DISTRICT COUNCIL

New Forest District Council

Corporate Tree Strategy

2014 – 2019

Draft June 2014

Contents

1. Introduction – New Forest District Council

The New Forest District Council manages one of the largest districts in the country and covers an area of approximately 250 square miles with a population of over 170,000 people. It is predominantly rural in nature and is made up of a diverse range of land types ranging from chalk downland, heavily populated flood plains, coastal landscapes, mud flats, salt marshes and low lying river valleys, which in turn supports a diverse range of trees.

The Council is in an unusual position as a landowner responsible for land surrounding, and within, the New Forest National Park (including SSSI and Ramsar sites), an area of international importance for biodiversity, particularly associated with trees and woodland. Council land (and trees) has an important role in connecting habitats and buffering impacts on sites of importance and it is essential that the management of green infrastructure reflects this.

In the towns and villages, approximately 80% of trees are in private ownership which reflects the wider situation across the country. Space is often very restricted and it can be difficult to establish new trees on public land. There is significant pressure on existing trees due to the activities of people and conflicts of interest. The residential population of the district has more than doubled since 1950 (Source: Growing Better Together NFDC).

There is a strong legacy of tree cover within the district. The Council is responsible for many important trees in key locations which provide essential benefits to local people and visitors. Whilst there is no specific information available relating to overall tree cover within the District, overall records for tree cover in the south of England range from 11-12%.

New Forest District Council (NFDC) is responsible for a range of treed areas including 5200 housing properties, open spaces, car parks, woodlands and cemeteries and was one of the first Councils in the UK to initiate a woodland burial scheme.

2. The Purpose of the Tree Strategy

NFDC has produced this tree strategy to promote, enhance and protect trees growing on land owned and managed by the District Council and to provide a framework for decision making.

It will demonstrate that NFDC proactively manages its trees in conjunction with best practice and relevant policy and will set out how, why and when trees will be managed and ensure that there is a continuity of tree management going forward.

The production of this document will also give a snapshot of the current state of the NFDC tree stock along with the identification of areas of concern to allow the implementation of a proportionate response.

It will set out the importance of trees to the people who live, work and visit the New Forest District.

Following the recommendations of 'Trees in Towns II' (Department of the Environment) and the Tree and Design Action Group, local authorities are encouraged to develop a comprehensive tree strategy.

3. Scope

This strategy specifically relates to the management of the Councils tree stock (including trees forming hedges) on land for which it is responsible and this function is administered by the **NFDC Tree Team.**

Set out below is an overview of responsibility for tree related issues which are not specifically managed by the NFDC Tree Team.

NFDC and the **New Forest National Park Authority** (NFNPA) work in partnership, and the majority of planning related tree services are currently administered by the National Park on behalf of NFDC under a service level agreement. This relates to trees, both in the National Park, and the wider New Forest District Council area. This includes administering Tree Preservation Orders, Conservation Areas, Hedgerow Regulations and planning applications relating to trees (email: trees@newforestnpa.gov.uk Phone: 01590 646600).

The **NFDC Planning Department** deals with enquiries relating to the Local Government (Miscellaneous Provisions) Act 1976 Section 23 & 24, in relation to dangerous trees in private ownership and enquiries relating to High Hedges (Anti-Social Behaviour Act 2003 Part 8). (Phone: 023 8028 5000).

Trees growing on land which forms part of the adopted highway are the responsibility of the **Highways Authority, Hampshire County Council**. (Phone: 0845 603 5368 Website: www.hants.gov.uk).

The **Forestry Commission** is responsible for the management of trees on Crown land within the New Forest area (Phone: 02380 283141 Email: southern.reception@forestry.gov.uk).

The **NFDC Corporate Tree Team** does provide a tree management and advisory service to a range of local Parish and Town Councils and other groups responsible for trees. This strategy does not specifically relate to these arrangements, however, the principles set out in this document are generally applied in the delivery of this service.

The NFDC Tree Team is happy to give brief informal advice relating to the management of private trees. Tree owners are directed to the Arboricultural Associations list of approved contractors and consultants (www.trees.org.uk).

4. Policy Context

4.1 International

The 1992 Rio Summit resulted in a declaration on the environment and climate change and stated that the protection of the environment must be an integral part of the development process. The summit also produced *'Agenda 21'* which outlined the importance of trees and woodlands in relation to benefits to individuals and communities.

In the wake of the 1992 Rio Summit, conventions were established relating to climate change, biodiversity and the management and conservation of forests.

4.2 National

The 2005 UK Strategy for Sustainable Development underpins the requirement to carefully manage natural resources and restrict damaging practices. Specific reference is made to the importance of trees and woodland. A key principle of the strategy is described as:

"Respecting the limits of the planet's environment, resources and biodiversity – to improve our environment and ensure that the natural resources needed for life are unimpaired and remain so for future generations" (http://sd.defra.gov.uk/what/principles/).

In 2007 Defra published a **'**Strategy for England's Trees Woods and Forests'. This document outlined the Governments aims for the UKs trees and woodlands as follows:

- Maximise the environmental, economic and social benefits of trees.
- Ensuring that trees and woodlands are 'resilient to the impact of climate change'.
- To protect and enhance the environmental resources (of water, air, soil and biodiversity) along with the amenity and cultural values of trees.
- Increase the influence of trees on the quality of life of people in the UK.
- Develop and promote new markets for sustainable woodland products and ecosystem services.

The Climate Change Act (2008) requires local authorities to promote measures which can help mitigate the effects of climate change which includes the maintenance of existing trees and new tree planting.

The Government has published a Natural Environment White Paper, The Natural Choice: Securing the Value of Nature (2011), which sets the case for a robust and interconnected system of ecosystems and networks. It further outlines the importance of trees and woodlands in the UK and sets out goals to increase tree and woodland cover in both urban and rural areas, enhancing the benefits trees can provide, improving the management of trees and the resilience of the UK tree resource to current and future threats.

The 2011 UK Natural Ecosystem Assessment reinforced the principle that a robust natural environment is the key basis for sustained growth benefitting local businesses and people.

The Natural Environment and Rural Communities Act (2006) require public authorities to conserve biodiversity and restore and enhance habitats.

The National Planning Policy Framework (2012*)* contains a number of key clauses with relevance to the landscape and trees.

There is specific reference to requirements in relation to:

- Building a strong economy
- Design
- Promoting healthy communities
- Climate change and flooding
- Natural environment

All of which involve the protection and enhancement of green infrastructure and the natural environment of which trees are an integral and essential component.

There is also a requirement to prepare and adopt a Local Plan including reference to enhancing the natural environment, sustainability, landscape character and health and wellbeing, along with a duty to co-operate across administrative boundaries to achieve objectives.

4.3 Local

The New Forest District (outside the National Park) Core Strategy was adopted on 26 October 2009. It covers the areas of the District outside the New Forest National Park and is a key part of the new Local Development Framework. The Core Strategy provides the broad planning strategy for the area up to 2026. Some of the saved policies in the adopted Local Plan have been replaced by policies in the Core Strategy.

NFDC Core Strategy objectives which are related to trees and associated benefits include:

"5.8.2 Minimise the impact of local factors contributing to climate change.

Assess the implications on the plan area of climate change and develop appropriate local responses that minimise any harmful local impacts."

"5.8.7 Promote a positive future for rural areas securing their economic prosperity and environmental and social wellbeing."

"5.8.8 Promote and safeguard biodiversity, protection and enhancement of wildlife and landscape quality.

Promote public education and understanding of the care and quiet enjoyment of the natural environment."

Policies CS1 and CS2 relate to landscape, ecology and the quality of the environment. Policy CS3 sets out that:

"Measures will be taken, working with other partners to secure the enhancement, restoration and creation of biodiversity, including measures to adapt to the consequences of climate change."

"h) encouraging land management practices that restore or enhance sites of biodiversity value and which create new sites."

"m) retaining and enhancing the green infrastructure networks within settlements."

Policy CS6 relating to flood risk refers to an aim to reduce surface water run-off and increase flood resilience and resistance, traits which trees are proven to provide.

Section 6.7 sets out a commitment to provide 'places for gentle exercise and leisure activities – essential towards maintaining a full and healthy lifestyle – including pleasant places to stroll or walk the dog'.

> *"6.7.9 Improving the quality of existing open spaces".*
>
> *"6.7.11 Preserving and enhancing green infrastructure - with specific reference to trees and woodlands in relation to public amenity, health, biodiversity and sustainability."*

In 2008 the Changing Lives Partnership produced 'Future Matters, The Sustainable Community Strategy for the New Forest District'. This document sets out a vision for a *'thriving New Forest where people, the environment and the economy provide an exceptional quality of life'.* The strategy aims to engender a stronger sense of place, with a greater recognition of the value of green space and biodiversity.

Objectives include increasing the sustainable management of woodlands, increasing and protecting areas of green space, reducing the impacts of flooding and higher temperatures associated with climate change, ensuring that plants grow that are adapted to the climate and increasing local community involvement. These aims mirror the objectives of the tree strategy to maximise the benefits associated with trees for the District.

4.4 Conclusion

The policies and guidance detailed illustrates the recognised importance of trees and woodlands from an international to a local level. This tree strategy is envisaged to tie in with the aims of other Council policies and strategies (reflecting wider regional, national and international objectives) in promoting and improving green infrastructure of which trees are a principal component.

5. Overview of Tree and Woodland Benefits

It is generally accepted that trees are attractive features within our towns, villages and countryside which contribute significantly to the character of the District. Beyond purely visual features, trees provide many other benefits which are often overlooked.

5.1 Economic Benefits

The presence of trees can add from 6-18% to the value of property (Wolf 1998 and London Tree Officers Association).

Trees can reduce fuel costs for heating, and cooling our homes. Providing shade in the summer and protecting buildings from cooling winds in the winter. Akbari (2002) states that '*Urban tree planting can account for a 25% reduction in net cooling and heating energy usage in urban landscapes'.*

With the onset of global warming and the potential for an increase in temperatures the value of shade provided by trees is likely to increase. Shade provided by trees is claimed to lower temperatures by 8 degrees (Simson 2008). The work of Gill et al (2007) indicates that retail sales suffer with only a minor increase in temperatures (0.3%).

Stovin et al (2008) suggest that urban trees help to intercept and store rainfall, reducing soil erosion and 'run-off' by buffering the impact of raindrops on the soil. Flooding in urban areas currently costs the UK over £270 million annually with related significant impacts on water quality and the environment associated with over run drainage systems.

Current climate change forecasts indicate an increased likelihood for storm water events; *'Winters will become wetter with more days of rain and greater volume of precipitation. This can lead to an increased flood risk by up to 200%'* (Forestry Commission 2010) and trees are likely to become increasingly important as a cost effective contribution to Sustainable Urban Drainage Solutions (SUDS).

5.2 Social Benefits

Ulrich (1998) suggests that the presence of trees in hospital grounds can significantly improve recovery times.

The work of Hartig et al (2003) indicates that *"trees and woods can have a restorative and therapeutic effect on the mind".*

Whilst the above are physical and psychological benefits it follows that there would also be a significant reduction in the cost of health care provision, giving a considerable saving to the public purse.

Kuo and Sullivan (2001) found that levels of crime were lower in areas where trees featured in the landscape.

Other social benefits include encouraging outdoor activity and recreation with associated improvements in health and wellbeing.

Street trees can have a beneficial impact on traffic, giving the impression of road narrowing which can help to slow traffic, reducing driver stress and also in some cases acting as a barrier between pedestrians and cars.

Trees make an important contribution to the absorption of pollutants. Tiwary et al (2009) suggests that: "*trees provide a surface area for capture (of pollution) that can be between 2 and 12 times the area of land they cover".*

When one considers the Government estimate that 24,000 people in the UK suffer a premature death due to air pollution (NWDA 2007) (BBC news report on 07/03/13 increased this figure to 26,000) and that hospital admissions linked to air quality could cost as much as £60 million a year (Sustainable Development Commission 2008), the real worth of trees in relation to air quality and health is reinforced.

Gill et al (2007) suggests that a 10% increase in urban tree cover and green space will offset predicted rises in temperature due to global warming.

Shaw et al (2007) argued that more large trees are required due to the greater associated benefits they provide.

5.3 Environmental Benefits

Trees can help sequester or absorb carbon, storing it in the form of wood. Many tree work contractors (including NFDC's corporate tree contractor) process their arisings to supply wood fuel/biomass as a renewable alternative to fossil fuels.

Trees provide essential habitat to a wide range of biodiversity and can act as a major feature of 'green corridors' particularly in urban areas, providing essential links and transport routes to a range of wildlife. Trees give feeding, nesting and roosting sites for many species of flora and fauna.

The work of Brown and Kodric-Brown (1977) suggests that species in poor quality environments can be supported by neighbouring habitats of higher quality if there is a sufficient avenue of connection. Trees play an important part in this process, providing a link between urban green spaces.

5.4 Cultural Benefits

Trees make an important contribution to the character and identity the local area.

Trees can provide a sense of scale and a sense of time in developed landscapes, they can mark the passing of the seasons and stimulate interest with displays of flowers fruit, leaf colour and form.

Kim and Kaplan's (2004*)* work indicates that green space and natural features can play a significant role in increasing the bond that local people have with their locality and their neighbours.

Newton (2007) states '*Trees bring people together. They contribute to a sense of place and play and important role in fostering social cohesion and reducing negative social behaviours'.*

It is important to note that larger species of tree tend to provide correspondingly greater benefits and yet despite this there has been a general trend in the UK to remove larger mature trees and replace them with smaller tree species (if at all) due to competition for space and concerns over safety and nuisance as highlighted by the UK Urban Canopy Initiative and the government publication 'Trees in Towns II' (Britt and Johnston 2008). This process has been described as 'urban deforestation'.

6. NFDC Trees: The Current Situation in 2013

NFDC is responsible for a wide variety of trees growing on NFDC land on a range of sites.

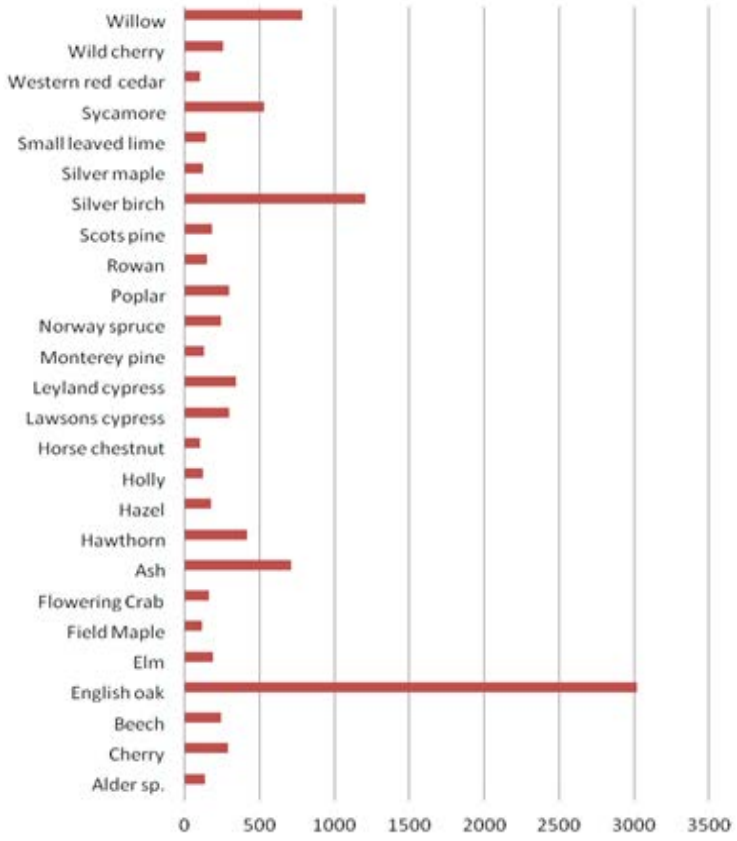
NFDC currently has more than 15,000 trees recorded on its tree specific management system.

(This number should be treated with caution as it reflects only those trees which are specifically recorded and certainly substantially underestimates the total number trees, particularly smaller individuals and trees within large groups).

This information has been collected over the past 8 years via an ongoing proactive survey of Council owned trees, recording data on a tree specific electronic database.

Table 1 illustrates the species of trees which are recorded as individuals or groups of single species. (Mixed groups not included). Other species with recorded representation lower than 100 are also not included.

NOTE: This table is not an exact record of the specific numbers of individual species but gives a useful indication of the general distribution. The table refers to approximately 2 thirds (10,429) of recorded NFDC trees.



This information illustrates that there is a principle reliance on species such as willow, birch, sycamore, ash and English oak which is likely to reflect the wider situation in the local area.

Oak (*Quercus robur*) is present in numbers three times greater than other dominant species.

This situation varies from the general picture of tree species distribution in England as established by the Governments 'Trees in Towns II' (Britt and Johnston 2008) report. Across the county 'small' broadleaf trees were most common (42%) and Leyland cypress and hawthorn were the two most frequent species.

This suggests that NFDC has strong asset of large broadleaf trees reflecting its less urbanised character.

Oaks are very important ecologically with well over 400 different types of invertebrate associated with the species (Southwood 1961). Oak provides a higher biodiversity value than any other native tree and hosts more insects than any other tree species in the UK. Oak is also an iconic tree of the New Forest area which is specifically suited, integrated and adapted to local conditions and ecology. Older or larger trees are likely to provide a proportionately higher contribution than younger and smaller trees due to their greater mass and higher volume of habitat features.

A number of issues can affect this species in the UK, including Acute Oak Decline, and the oak processionary moth (*Thaumetopoea processionea)* (with implications for human health).

Over reliance on single species is problematic due to the threat of pests and disease and a changing climate among other factors which could significantly impact upon the tree population.

Ash (*Fraxinus excelsior*) make up approximately 5% of recorded NFDC trees and the species is an important feature in our woodlands, gardens and open spaces. This species is considered important for dead wood invertebrates and is the second most important native tree for lichens, filling a niche left by the demise of elm trees due to Dutch elm disease.

Many self-seeded trees develop in hedgerows, woodlands and open spaces and make an important contribution to the district. This 'natural regeneration' is a useful (and free) alternative to tree planting when trees develop in appropriate locations. This species can cause problems where it establishes in inappropriate locations such as adjacent to fencing or walls with a high potential for future damage as the tree increases in size.

Ash trees are currently under threat from the fungus Chalara fraxinea / Hymenoscyphus pseudoalbidus (Ash Dieback). This disease could potentially affect a large proportion of ash trees in the UK and the planting of new ash trees is currently not permitted. NFDC will continue to monitor ash trees in the locality and if affected trees are discovered will liaise with the Forestry Commission regarding relevant action.

Sycamore (*Acer pseudoplatanus*) is also well renowned for its ability to regenerate in areas of open ground. This species is not considered to be native but does have positive associations with biodiversity. It flowers in midsummer when limited numbers of other trees are in flower and provides an important source of nectar and pollen. Sycamores also support a high volume of foliar invertebrate and epiphytic communities (such as lichens) in particular. This species can require control where it develops in inappropriate locations or where it suppresses the development of other important trees. Sycamore may become an increasingly important feature if local ash populations are significantly affected by Ash Dieback.

Willow (particularly *Salix caprea*) and birch (*Betula pendula*) are 'pioneer' native trees which readily colonise areas of open ground and support an important range of associated flora and fauna including many species of moths, butterflies and bees. These species have relatively short life spans (typically less than 70 years) and generally do not reach equivalent size of other trees such as oak and ash. They form an important feature across the district and as they regenerate freely they are an excellent source of 'free' trees.

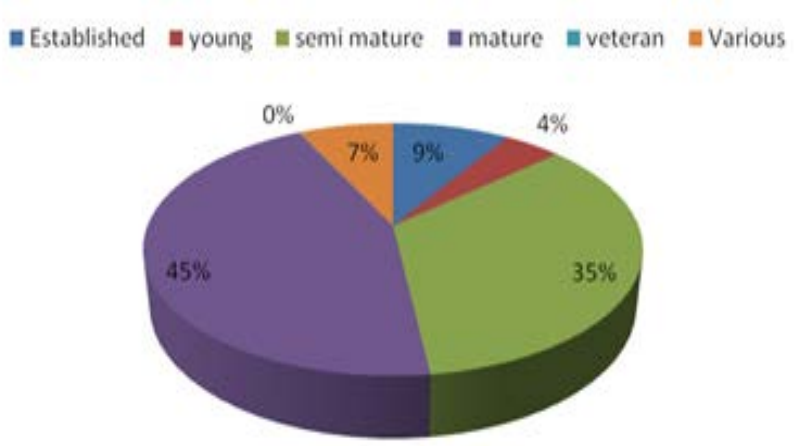


Table 2 illustrates the typcial ages of recorded NFDC trees and highlights the low number of young and established trees. This may in part be due to a lack of reporting for these age classes but is also likely to be attributable to a lack of planting historically. These younger trees will be the mature and veteran trees of the future.

Across the county mature trees are far less common (only 17%), however, there are typcially twice as many young trees recorded (14%).

NFDC must work towards having an increasingly uneven aged profile of trees with a greater balance across age ranges, increasing the number of young, established trees and those trees with veteran features to ensure that there is a continuity of tree cover and habitat for the future.

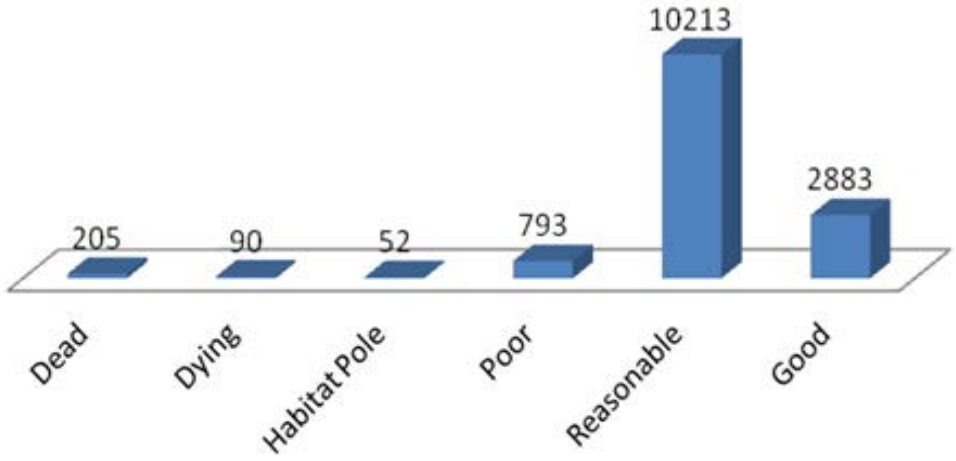


Table 3 illustrates that the majority of NFDC trees are classified as being in reasonable or good condition (91%). This is undoubtedly positive and appears to improve upon the average situation for local authority trees in England (only 70% classified as 'good' as opposed to 'poor, dying or dead'). This data is likely to reflect a bias against recording trees of all conditions in low risk areas, however, the information can be used to monitor the situation going forward to identify developing trends and direct the allocation of resources where required.

7. Key Issues Affecting NFDC Trees

Some of the particular problems which affect the NFDC tree stock are outlined below. These issues are based on the experiences of the Tree Team over recent years and present the challenges for the management of Council trees. NFDC will take steps to address these issues individually over the next 5 years when a review will be carried out to identify progress, areas for improvement and new developments which require attention.

A Gradual Decline of Tree Cover

This is predominantly due to:

- Sanctioned removal of inappropriate, damaged or dangerous trees and trees causing damage as part of the Councils' ongoing management of the tree stock.

- Ongoing pressure to remove trees which cause a perceived nuisance (blocked light/leaf fall etc) partly due to a lack of a formal adopted tree works policy.

- The unsanctioned removal or damage of trees with a failing of the Council to consistently provide a robust response.

- Finally and most importantly there has been a lack of replanting and new planting historically due to limited resources, and a focus on risk management to the detriment of a broader proactive management of the Councils' trees.

Tree Management

- Pressure to remove trees due to concerns about safety, direct and indirect structural damage to property due to a lack of formal guidance on tree works, the level of risk associated with trees and a formal Council procedure to respond to such claims.

- Historic planting and lapsed maintenance of hedges in housing property gardens (i.e Leyland Cypress) which then become overgrown, costly and difficult to manage in the long term.

Woodland Management

- Lack of proactive and strategic woodland management (including the formation of management plans) leading to a decline in condition of Council woodlands and a failure to maximise the potential of individual sites.

- A history of fly tipping in woodland sites.

- Invasive species such as *Rhododendron ponticum* supressing more beneficial species in our woodland areas.

- Failure to access outside funding/resources for management projects including the use of volunteer or other groups.

Tree Health

- Over representation of individual tree species and age classes with potential increased susceptibility to pests and diseases and a changing climate due to a lack of diversity.

- Pests and diseases pose an increasing risk to the health of our trees and woodlands.

- Climate change may bring conditions which are not suitable for long term tree health for all species.

- A failure to follow best practice to minimise and mitigate the impact of development and infrastructure works including damage to trees and soils.

- Lawnmower and strimmer damage to tree roots and stems. Wounds to roots and stems can provide an entry point for decay fungi. The likelihood of the development of dysfunction or decay increases where wounding is regularly repeated over time. This is of increased significance for older trees which are less able to respond to injury.

- Car parking and mowing on verges and grass areas in Council housing estates. Vehicles driving and parking on the soil can significantly damage soil structure via compaction which can reduce available water, air and nutrients for tree growth and lead to decline. Tree roots and stems can also be damaged where parking occurs next to trees with long term implications for tree health. These activities also reduce the viability of future planting schemes by damaging the soil and obstructing areas of green space.

8. Trees and Risk

The very low risk of harm associated with trees can sometimes cause disproportionate public concern. Trees are dynamic living structures which are often of great size and which move and react to the wind. Furthermore tree failures and instances of fatalities associated with trees are often subject to a high degree of public attention further engendering a high perception of risk.

The HSE suggests that the risk from trees falls into its lowest category of risk; the Broadly Acceptable Region on the Tolerability of Risk Framework ('Reducing Risks, Protecting People' 2001). Despite this, tree owners have duty of care under Common Law (the torts of negligence and nuisance), Occupiers Liability Acts (1957 & 1984) and the Health and Safety at Work Act 1974 to take reasonable steps to prevent foreseeable harm to people or property.

This duty of care can be reasonably fulfilled by undertaking a regular assessment of trees which pose a significant risk due to their location and condition. Remedial works can then be carried out as required.

NFDC will manage the low risk posed by its trees as part of its wider management of the tree stock and in line with current best practice. The specific approach is outlined in the separate Tree Risk Management Strategy (attached Appendix 2).

9. Tree Works Policy

NFDC will adopt a consistent and sustainable approach to tree work following the principles of best practice (BS 3998: 2010 - Tree Work Recommendations) to meet its duty of care and maximise the benefits of trees under its ownership.

- Remedial works will be undertaken where trees are likely to cause reasonably foreseeable damage to property or injury to people and where any alternative options are considered to be inappropriate.

- In compliance with the Highways Act 1980 tree works will also take place to provide suitable clearances of roads and footpaths (typically a clearance of 5.2m of roads and 2.3m of footpaths) to prevent obstruction and to clear sightlines.

- Where tree branches restrict the reasonable use of the gardens, branches will be lifted to provide a suitable clearance (typically of 3m).

- Where trees are touching or nearly touching property with the potential to cause damage before the next inspection date they will be pruned back to achieve a suitable clearance (generally 2m).

- During proactive surveys and reactive site visits NFDC will consider the long term suitability of trees and where appropriate may remove trees which are not suited to long term retention (at the discretion of the Corporate Tree Team and applying the principles of good tree management). This will involve a consideration of trees (in particular both age and species) in the context of the resilience and long term viability of the Council's tree stock in the local area and the amenity value it provides.

- NFDC recognises the important contribution garden hedgerows make to wildlife, alongside other benefits such as screening. Hedges in housing properties which haven't been managed historically may be formalised where the condition of the hedge allows and tenants will undertake ongoing future maintenance.

  Where this is not feasible hedges may be removed and replaced with more suitable species or as a last resort, alternatives such as fencing.

- Trees will also be pruned or removed where appropriate to improve the growth of adjacent NFDC trees which are considered more suitable for the long term, to restrict the spread of pests and disease, to allow the control of invasive species or to remove trees which are not suitable for long term retention.

- Where tree roots are subject to sustained ongoing damage from lawnmowers or strimmers, the application of 100mm of woodchip mulch (typically in a minimum 1m circle around the stem but sufficient to protect exposed roots) will be considered. In some areas allowing grass and undergrowth to grow longer around a tree can be a useful alternative with additional benefits for wildlife and the tree (this also reduces the grass cutting requirement for the Grounds Maintenance teams). Where such projects are initiated signs will be put in place on site to inform the general public of the scheme and its purpose.

However: All works will be specific to each individual situation and will be dependent on the species and condition of the tree and other relevant factors.

NFDC will not carry out works to specifically alleviate issues such as:

Overhanging Branches

There is no legal obligation for a tree owner to prevent trees growing over boundaries. The Council inspects its tree stock to ensure that branches that do grow over boundaries are not likely to cause reasonably foreseeable damage to structures or injury to people and where appropriate to provide a reasonable clearance of gardens, driveways, roads and paths.

Neighbours have rights under common law to prune back overhanging growth back to their boundary (subject to consent from the Local Planning Authority for any trees under statutory protection, planning conditions or covenants) however they must not cross the boundary to undertake this work.

All arisings technically remain the property of the tree owner. Where such works take place to NFDC trees any arisings should be disposed of appropriately and not be deposited over the boundary.

It's important to note that if by their actions a neighbour leaves trees in a condition which:

- Requires remedial works to make them safe.
- As a result of the works the tree fails and causes damage or injury.

In such circumstances the neighbour is likely to be liable for any resulting damages and or costs of work.

It is good practice to contact the Corporate Tree Team to discuss any proposed works. It is also advisable to check with the New Forest National Park Tree Team that trees are not protected prior to works taking place.

Blocked Light

There is no proven 'right to light' in law in relation to trees. Pruning trees can negatively affect their visual appearance and has implications for long term tree health and retention. Pruning often results in dense re-growth which can increase issues of shade within a short period of time and therefore doesn't provide a sustainable or cost effective method of controlling this issue.

As trees grow they can block out sunlight. This is particularly apparent where trees are located beyond the southern boundary of a site. *'The sun rises in an easterly position and tracks through south to set in a westerly direction'* (Barlow & Harrison 1999) and as such trees located to the south can cause a high degree of shade, particularly during times of year when the sun is lower in the sky and when leaves are present on deciduous trees. These factors must be taken into account at the design stage for all proposed structures to minimise future conflicts.

In light of concerns relating to climate change and the benefits of trees in relation to the mitigation of climate change (i.e. helping to buffer extremes of temperature amongst other benefits); shade is likely to be of increasing importance to residents in the south of England.

'Sap' or Honeydew

This is a sticky liquid excreted by aphids feeding on trees which can be readily cleaned with warm soapy water. Encouraging insects which predate on aphids such as lacewings or ladybirds may help reduce this issue.

Bird Lime and Other Issues Associated with Wildlife

Trees provide an excellent source of roosting, nesting and feeding sites for a wide range of wildlife including birds and this is largely to be encouraged. The Council will not consider pruning or removing trees to alleviate problems associated with 'wildlife'.

Falling Leaves

Leaf fall is a naturally occurring event over which tree owners are not expected to have any reasonable control. This predominantly relates to deciduous trees and occurs over a relatively short period of time each year. Leaves can provide an excellent (and free) source of compost and can be usefully collected and mulched with a lawn mower.

TV Reception

There is no legal right to television reception. Such issues will not be grounds for tree pruning or removal and may be best resolved by alternative engineering methods. Service providers should be consulted to discuss viable alternative solutions.

To Allow Increased Sunlight to Solar Panels

Solar panels should not be installed where existing trees will have a significant adverse impact. Where pre installation site surveys have been carried out competently such issues should not develop.

Because Trees are Deemed to be 'too big'

Trees grow adaptively to support themselves in relation to their surroundings and the typical loads they can be expected to experience. Trying to contain trees to a specific size is only a suitable management regime for certain species in specific circumstances (i.e. pollarding).

This process is initiated *'soon after (a) tree is established'* and *'larger trees should not normally be treated in this way'* (BS3998: 2010 Treework – Recommendations). 'Crown reduction' can also be used to allow the retention of an important tree with structural defects, trees which cause an obstruction or trees which are likely to cause structural damage to property which would otherwise need to be removed. In all other situations reducing the size of a trees crown is not considered appropriate.

Because Tree Roots have Entered Drains

Tree roots do not generally enter drains which are properly constructed and fit for purpose (i.e. designed for use around trees). Unfortunately many drainage pipes in the UK are not constructed to this standard. Roots are opportunistic and will grow in areas which meet their requirements for air and water. Condensation on the outer surface of pipework and disturbed ground where pipes have been laid can provide good growing conditions for root development, particularly when surrounding ground has been compacted.

Where roots have entered drains there are reliable engineering solutions (such as relining pipes) which allow tree retention and solve the drainage issue for the long term.

The Impact of Tree Works

Pruning trees creates wounds which are potentially damaging and may allow the ingress of disease or decay. Following pruning trees generally re-establish their leaf coverage as quickly as possible which can often lead to the development of dense re-growth exacerbating issues such as blocked light and leaf fall. Pruning often initiates the development of latent buds which do not form strongly attached branches and necessitates ongoing future management.

Pruning can also damage the aesthetic appearance of trees and diminish their amenity contribution.

For these reasons pruning of NFDC trees will be kept to a minimum.

Where trees are removed the establishment of a replacement is not always straightforward. Issues such as vandalism, drought stress, transplant shock and aftercare requirements can restrict success rates. Also it takes a long time for such trees to make a significant amenity contribution to an area.

Who Can Carry out Works

Where works are to take place to NFDC trees the NFDC tree contractor will carry out the work in partnership with NFDC Environment Services.

Housing tenants are expected to undertake general management (trimming) of hedges in gardens and can undertake small scale pruning to trees (they may also employ gardeners to carry this out on their behalf).

The Tenancy Agreement (Sections 4.4 and 7.2.n) states that tenants must not fell or damage trees on housing properties or open spaces.

As a guide, any works to stems or branches larger than approximately 25mm in diameter should be referred to the Corporate Tree Team.

It is not considered appropriate for neighbouring properties/housing tenants to pay for works to NFDC trees or to use their own contractors to carry out works. However neighbours can carry out works to NFDC trees where they overhang the boundary as per their rights under common law (subject to consent relating to any statutory designations).

Tree works carried out by the NFDC tree contractor will follow the principles set out in the British Standard for Tree Work (BS 3998 2010 - Recommendations for Tree Work).

10. Damage Caused by Trees

Direct Damage to Property

Tree roots, stems and branches get thicker each year via a process called secondary thickening. Over time as they increase in size they can disrupt or distort adjacent structures and surfaces. This is generally limited to 'lightly loaded' structures such as low walls, fences and paving. Trees generally deflect around more 'heavily loaded' structures such as houses.

In such circumstances alternatives to tree removal will be explored (i.e. engineering solutions). The asset value of the tree will be considered against the cost of alternatives. (i.e. applying CAVAT (Capital Asset Valuation of Amenity Trees) system of evaluation).

Indirect Damage to Property (Subsidence)

Throughout the growing season as part of the growth process trees extract water from the soil and release it into the atmosphere. On highly shrinkable clay soils this can result in soil shrinkage or movement which, in specific circumstances can lead to the differential movement of structures with the potential for damage. Such soil movement can also be attributable to a wide range of other factors including the climate, surface vegetation such as grass or shrubs, drainage issues and other factors linked to the design and installation of the structure/building. Careful analysis of a range of evidence is required to determine the cause on the balance of probabilities. As set out in the accepted national guidance document "Subsidence of Low Rise Buildings" (Institution of Structural Engineer's 2000) other potential influencing factors should be eliminated before the assumption is made that trees are the cause of structural movement.

Incidents of subsidence related damage involving NFDC trees are rare, however there are areas of shrinkable clay soil within the District.

Members of the public who are concerned about tree related subsidence are advised to contact their insurers.

To support situations where NFDC trees are implicated in subsidence related damage specific supporting evidence will be required.

The value of the tree will be a material consideration in the process. To determine this, an established valuation system known as CAVAT (Capital Asset Valuation of Amenity Trees) will be applied in each instance. This mirrors the approach applied by signatories to the Joint Mitigation Protocol established by the London Tree Officer Association to enable a cohesive and proportionate response to insurance claims related to trees and subsidence.

Recent case law (Including Perrin and another v Northampton BC 2007 and Berent vs Family Mosaic and London Borough of Islington 2012) has helped to clarify the courts perspective on this issue and set out that alternative solutions to tree removal should be considered and also clarified how tree owners should proactively manage the risk from trees on clay soils.

NFDC will review its land holding where there have been successful claims of damage and review if there are trees in this area which are likely to pose a 'real risk' and will take appropriate action.

Action Point 5 : Review NFDC land in relation to subsidence risk.

Insurance Claims

Where trees are alleged to have caused direct or indirect damage to property and a formal claim is submitted the matter will be referred to the Councils' insurers.

NFDC will consider claims directly from property owners. Such claims should be submitted in writing with at least three quotes to cover the cost of repair or replacement along with justification for the claim. Claims for damage which was not reasonably foreseeable are likely to be refused.

All claims should be addressed to:

New Forest District Council
Performance, Monitoring and Insurance Officer
Appletree Court
Beaulieu Road
Lyndhurst
Hampshire
SO43 7PA

11. Protection and Enforcement

NFDC will adopt a robust approach to damage to its property. Where NFDC trees are felled or damaged without prior consent the matter will be referred to the police. Civil action will be considered to recover compensation for the loss of the tree and/or any remedial works including replanting with a suitable replacement, and aftercare. Accepted tree valuation methods will be applied where appropriate to establish a monetary value of the tree/s. Officer time investigating damage may also be incorporated in any claim.

NFDC will also consider the use of Tree Preservation Orders in conjunction with the Local Planning Authority (The New Forest National Park Tree Team) to increase the legal protection afforded to specific trees or woodlands which are considered to be under threat. Where damage is caused to a tree which is protected by a Tree Preservation Order, the Council will consider prosecution.

12. Enquiries Relating to NFDC Trees

Each year NFDC receives up to 1,000 enquiries relating to trees.

Requests for works to trees will be considered in line with the Tree Works Policy.

NFDC will respond to enquiries from housing tenants and members of the public. Enquiries will be dealt with on a priority basis and the following system will be applied.

Priority	Classification	Response Time	Fix Time	Description
Red	Urgent/high	Asap – 1 week	Asap – 1 week	Specific concern about safety and posing an immediate risk (i.e. split branches/stems, fallen trees in high use areas).
Amber	Medium Risk	1 month	3 months	General concerns about safety, dead branches, ill health, cavities and fungi. Trees causing actual damage to property. Trees obstructing access (e.g. low branches over paths and roads).
Green	Low Risk	3 months	1 year	Trees thought to be unsuitable for long term retention. Fear of possible damage. For trees defined as 'too big', blocking light / causing shade, falling leaves/fruits, overhanging property. Tree works are unlikely to be appropriate in these situations but NFDC typically will visit the site to assess the situation.

Enquiries Relating to Private Trees

NFDC Tree Officers will give brief informal advice relating to private trees upon request including outlining relevant best practice and referral to specialists where appropriate.

Enquiries requesting a Council approved list of tree work contractors or consultants will be referred to the Arboricultural Association Approved Contractors scheme and the Registered Consultants scheme (www.trees.org.uk).

TPO and Conservation Area queries will be referred to the National Park Tree Team.

Complaints

Complaints should be made in writing to the Council in line with the NFDC Complaints Procedure.

Consultation on Tree Works

Generally NFDC will place notices on site giving a reasonable period of notice before planned tree works in the following circumstances:

- Where particularly large scale works are due to take place.
- Where trees are especially prominent or where the works may cause a significant disruption to a large number of people (including where they need to be aware to ensure they act in a safe manner near contractors/machinery including control of dogs/children).

13. Tree Works and the Environment

Tree works may need to be carried out a particular time of year to minimise the impact on the trees health or avoid issues such as the disturbance of wildlife. In particular, bats and nesting birds.

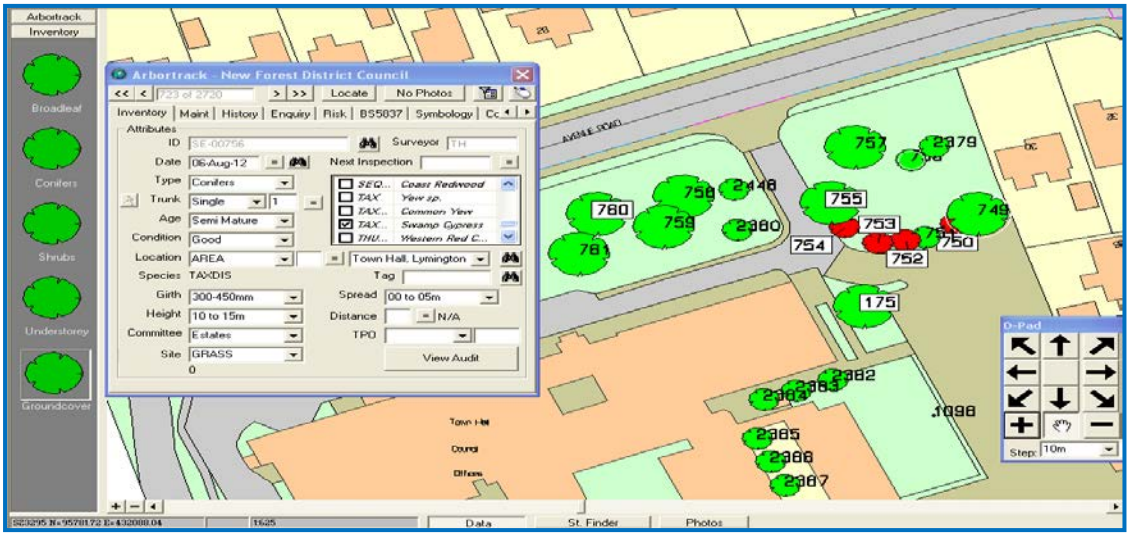
Council tree works will meet criteria and best practice under relevant legislation and guidance including the Wildlife and Countryside Act 1981, Countryside Rights of Way Act 2000, Natural Environment and Rural Communities Act 2006 and the Conservation of Habitats and Species Regulations 2010 (as amended) (Habitat Regulations).

Prior to the commencement of works the wildlife/habitat potential of trees will be considered and appropriate checks will be made as necessary, further advice and/or relevant licences will be sought when appropriate. In some cases work may need to be postponed to minimise impacts on protected species.

Where ever possible habitat features such as cavities, dead wood, water pockets, log piles and standing dead trees (among others) will be retained *in situ* as valuable niche habitats for wildlife. The presence of protected and other species will be a material consideration during the tree inspection process.

14. NFDC Tree Management and Systems

NFDC current operates a tree specific database which keeps an electronic record of significant trees under Council management along with details of their species, dimensions, age and condition, an audit trail of inspections undertaken and works carried out. This is important to demonstrate how NFDC meets its duty of care in relation to risk management but also acts as an inventory of the Councils tree stock informing current and future management.



Local authorities have a general duty under the Local Government Act 1999 to *'secure continuous improvements in the way in which its functions are exercised'.*

NFDC is committed to working towards increasing efficiencies and quality within the management of the Council tree stock, including an ongoing review of our processes, systems and hardware. Improvements in the quality of data recorded for Council trees will increase the reliability and usefulness of the information and allow the identification of trends, highlighting areas of strength and weakness.

Action Point 1: NFDC will review its tree software in 2014 and seek to make improvements to the collection of data and maintenance of records.

15. Canopy Cover

The Government sponsored report '*Trees in Towns II'* (Britt and Johnston 2008) indicates that the average canopy cover across local authorities in England is 8.2%. In the south of England the figure is from 11.2-11.8%. There are currently no reliable figures to indicate canopy cover with the NFDC boundary. This is an objective for the future which will allow an informed assessment as to whether NFDC is meeting its aim to sustain and increase canopy cover. Canopy cover information can also be used to identify areas of land that would benefit from new planting.

Action Point 3 : Obtain information on canopy cover within NFDC.

16. Tree Planting

'The best time to plant a tree was 20 years ago, the second best time is now'
- Chinese proverb

The principle aim of new planting will be to maintain and increase tree cover within the district and to achieve a robust and diverse tree population, well suited to the planting location and able to meet the challenges of a changing climate and pests and disease, whilst maximising amenity, biodiversity and other tree related benefits.

All new tree planting will utilise high quality, disease free planting stock from reputable suppliers grown to British Standard 3936 (1992) Specification for Trees and Shrubs (sections 1-5).

Planting will be undertaken following the principles set out in the British Standard 8545 (2014) Trees: From Nursery to Independence in the Landscape – Recommendations.

NFDC recognises the contribution of native species to biodiversity and also to the character of the New Forest, however this must be considered in tandem with the predicted impacts of climate change including 'projected increases in temperature, changes in the seasonality of rainfall, and an increased frequency of extreme events' (Broadmeadow et al 2010).

The ultimate aim will be a robust tree stock of varied age distribution and a wide range of appropriate species and genetic material.

NFDC will explore options relating to the provenance of trees (both in terms of origin of seed and all parts of the growing process) and will look for opportunities to support those suppliers who grow high quality, disease free trees which are likely to be suitable for the future. This will help to reduce risks associated with the importation of trees and soil which are a significant source of pests and disease which threaten UK trees.

NFDC will investigate the potential to source trees which meet this criteria and will support and work with those suppliers who can help achieve this goal.

Action Point 4 : NFDC will investigate the provision of high quality trees which will be resilient to future conditions and will reduce risks associated with pests and diseases.

Trees will be selected which will be specifically suited to their location for the long term and will minimise future conflicts.

There will be an overriding bias towards the planting of larger species of tree which provide correspondingly greater benefits, however smaller species will be considered where appropriate, including the potential creation of community orchards where there is local support and suitable sites available.

NFDC is committed to replanting trees following a tree removal. Where ever possible at least one replacement tree will be planted for each tree removed. Where due to location or other issue this is not appropriate, NFDC will seek to plant at least one tree on land which it manages in the vicinity so the tree cover in the local area is not diminished.

In addition, NFDC is committed to planting new trees in all areas which have previously had little or no tree cover. Where this is proposed in residential areas outside of property gardens a notice will be put up on site to give the local community the opportunity to comment on the proposal. Where trees are to be planted on open spaces or as direct replacement there will generally be no consultation.

There are many areas of NFDC land which could provide potentially useful planting sites. A shortlist of potential sites is maintained following discussions with the other Council departments and the public. An increase in inter-departmental co-operation between different sections of the Council will be encouraged to identify and encourage new planting schemes.

NFDC will obtain canopy cover information to direct new planting initiatives with an aim to concentrate resources on those areas which would most benefit from tree planting.

Action Point 3 : Increase canopy cover on NFDC land. Use canopy cover information and local knowledge to identify areas with low tree cover and direct resources to undertake comprehensive planting schemes in these areas. Aim to undertake schemes on ten separate sites within a five year period.

Vehicles and mowers driving on the grass can compact the soil making it inhospitable for root growth and can also cause physical damage to tree trunks and branches. This is a problem in many areas due to increasing car ownership and limited formal parking spaces. NFDC will seek to identify and secure potential planting sites and protect these from damage associated with car parking in tandem with other Council initiatives in relation to car parking.

NFDC will explore opportunities for external funding and support for tree planting schemes and will actively encourage community involvement in planting and aftercare programmes.

Action Point 7 : Explore opportunities to secure outside funding for tree planting.

Requests for new tree planting are actively encouraged and NFDC is keen to hear from people who would like trees to be planted on any Council owned land. Priority will be given to the planting of trees which will be of greatest benefit to the wider community.

'Areas of trees/woodland can be cheaper to maintain than grass' (Woodland Trust 'Trees or Turf' report 2011).

Aftercare

Good aftercare for 2-3 years after planting is essential to ensure that the investment in trees is not wasted; this is particularly true for larger 'standard' trees. Aftercare of trees can be time consuming and expensive.

NFDC will actively seek to involve the local community to help with watering and aftercare of newly planted trees (also giving them a vested interest in the future health of the tree). The corporate tree contractor will also be employed to water trees on a regular basis where necessary.

NFDC will seek to plant smaller sizes of tree stock where possible which have a lower aftercare requirement increasing the cost effectiveness of planting schemes.

17. NFDC Trees and Council Development Projects

'Root systems, stems and canopies, with allowance for future movement and growth need to be taken into account in all projects, including those which do not require planning permission'. (BS 5837: 2012 Trees in Relation to Design, Demolition and Construction - Recommendations).

Trees are at risk from damage where works are undertaken to demolish or construct buildings and related infrastructure. Wounds to branches, stems and roots can have a significant impact on a trees future health and stability.

Tree roots, which provide essential support, water and nutrients are most at risk from damage, as they are generally not visible and often overlooked. Roots are predominantly located in the upper 600mm of the soil and can extend laterally well beyond the 'drip line' or overhang of the crown. The structure of the soil surrounding roots is also at risk from compaction (such as vehicle access) and contamination (i.e. spillage of substances toxic to tree roots) which can have further long term impacts on tree health.

The principles of BS 5837: 2012 (Trees in Relation to Design, Demolition and Construction – Recommendations) will be applied whenever works are planned near to trees.

The tree team will continue to actively encourage liaison with other Council departments to ensure that trees are fully considered in the planning stage of projects.

Other Council departments will involve the tree team at an early stage when development works are being considered (including works planned by Council tenants with NFDC consent).

The value and contribution of trees will be a material consideration in the process. Where appropriate recognised tree valuation methods (such as CAVAT) will be applied to inform the process and specify relevant mitigation measures (such as decompaction or replanting) or alternative engineering solutions.

Utilities operations near trees will be managed in line with the guidance set out by the **National Joint Utilities Group** (Volume 4: Guidelines for the Planning, Installation and Maintenance of Utility Apparatus in Proximity to Trees. Issue 2, 2007). If utility companies and their contractors fail to carry out works in accordance with this guidance NFDC will seek compensation from the organisation responsible.

18. Council Procedures for Property Acquisition and Sale of Council Land

The Tree Team will be informed by the Councils Estates Team whenever properties are to be purchased or sold off so that trees can be considered. This may be the addition of land with trees to the survey system or the referral of sites where trees may be at risk to the National Park Tree Team for consideration for Statutory Protection (Tree Preservation Orders).

The New Forest National Park (NFNPA) Tree Team is responsible for all matters relating to tree protection and trees in relation to the planning system within the New Forest District Council area. This is provided under a service level agreement between the NFNPA and NFDC.

Trees under the Councils' ownership are not generally subject to statutory protection in the form of Tree Preservation Orders. This is because such trees are deemed to be under good management. When Council land is sold off there is a potential for tree damage or removal and the most important trees will be considered for protection.

Action Point 11 : Establish a procedure to ensure that trees are considered when sites are acquired or sold off by the Council.

Ex-Council Houses

All ex-Council housing properties are subject to a covenant which requires that owners contact the NFDC Tree Team to gain prior written consent for any tree works.

Applications for works under the covenant will be considered in line with the NFDC tree works policy and responses will be in writing.

NFDC will liaise with other relevant council departments and the Local Planning Authority to ensure that enquiries relating to tree protection on ex-Council properties are alerted to the presence of the covenant and the restrictions it imposes.

19. Managing Trees Sustainably

Arisings from NFDC tree works, used within the local authority, are typically left on site as habitat (as a weed suppressant on flower beds among other uses or are processed into fuel for biomass boilers. The Council's tree contractor produces approximately 300 tonnes of woodchip for biomass resulting from tree works for NFDC and its partners each year.

20. Woodland Management

NFDC is responsible for a number of woodland areas (approx. 25 hectares in total) comprising woodland strips and larger areas of woodland. These sites are predominantly used for recreation and through routes/access and are locally important sites for biodiversity (particularly when acting as a corridor - joining other areas of green infrastructure).

Historically tree management has been limited to works to ensure safety and the adhoc management of invasive species where funds have allowed. Invasive species such as *Rhododendron ponticum* and Laurel (*Prunus laurocerasus*) have developed extensively particularly in the larger woodland sites, suppressing the growth of other beneficial species and reducing the biodiversity value of the site. Many areas have been subjected to extensive fly tipping by adjacent residents and visitors.

Larger sites will be the subject of woodland management plans to direct their long term management and to bring them into line with the UK Forestry Standard (2011), to improve biodiversity, amenity and recreational values and to ensure woodlands are able to meet challenges posed by a changing climate and pests and disease. The same principles of management will be applied to smaller areas of woodland throughout the district when sites are proactively inspected.

Action Point 6 : Undertake woodland management plans for principal woodland sites.

There is considerable opportunity to seek alternative sources of funding for woodland improvements.

Action Point 7 : Explore alternative sources of funding.

NFDC will take steps to increase local community involvement in the management of the woods, with the aim of developing a sense of ownership for local people as stakeholders in the site.

Action Point 8 : Take steps to encourage community involvement in tree and woodland management.

Fly tipping will be addressed as a Council wide approach involving a range of different departments and will involve writing to local residents whose properties border affected woodland sites with a history of dumping. Letters will outline the legal implications of fly tipping and also the negative impact such action can have on property values, biodiversity and the health and safety of trees. Enforcement action will be taken against people illegally fly tipping on Council land.

Action Point 9 : Address fly tipping on woodland and open space sites.

Woodland Biodiversity

NFDC trees provide key habitat for a wide range of flora and fauna including many priority species as identified by the Hampshire Biodiversity Action Plan and Red Data List.

Where possible, trees will be managed to promote biodiversity and to provide as large a range of niche habitats as possible. This may include the control of invasive species, the retention of dead trees (standing and fallen) and dead branches wherever feasible (taking the safety of visitors into account). Proactive works will be undertaken to increase the volume of woodland edge habitats and the number and range of species which provide important cover, nectar and food sources to related wildlife.

Natural regeneration of suitable species will be encouraged along with the retention of seed bearing trees. This process of encouraging balanced woodland succession may in some cases require supplementary planting where natural processes are likely to be insufficient.

Veteran trees, (those trees which exhibit characteristics of ancient trees regardless of age) are of international importance to biodiversity in particular saproxylic invertebrates (insects associated with dead wood) fungi, birds, bats and lichens.

The UK and The New Forest in particular has a wealth of ancient and veteran trees. Such trees and the landscape around them require careful management to avoid negative impacts on the habitats of important species and the future health and survival of the tree. Where present trees with veteran features will be given particular consideration and where appropriate specific management plans will be produced.

Action Point 12 **:** Identify veteran trees on Council land and prepare individual management plans where appropriate. NFDC will pass on information relating to veteran trees to the Ancient Tree Hunt (www.ancient-tree-hunt.org.uk) and where appropriate the New Forest National Park who maintain a register of veteran trees within the National Park area.

21. Pests and Diseases

'Changes to climate could have a significant and rapid impact on the distribution and abundance of many pests and diseases'.

Tubby and Webber (2010)

The threat from pests and diseases is a rapidly changing arena which is now firmly imprinted on the public consciousness thanks to historic issues such as Dutch Elm disease (*Ophiostoma novo-ulmi*) and more recent concerns such as Ash Dieback (*Chalara fraxinea* / *Hymenoscyphus pseudoalbidus*).

Increasing concerns are particularly attributable to the impact of the importation of large rootballed or containerised trees, soil and untreated wood products which have allowed pests and disease from other countries to develop in the UK. A rapidly changing climate may also allow new and existing species of pest and disease to develop, presenting more suitable conditions. Trees are relatively slow growing organisms which are slow to adapt and react to rapid changes in conditions which can leave them particularly vulnerable.

This situation will be addressed by the regular inspection of NFDC tree stock (via proactive and reactive surveys).

Proactive steps will be taken to improve the robustness of NFDC trees (increasing diversity of species and age ranges and general tree health).

The tree team will take part in ongoing training and make use of available resources to keep pace with the rapidly changing situation in the UK.

Informal advice or referral to other specialist bodies will be given to the public to assist in the local management of these issues.

NFDC will meet its statutory obligations by immediately notifying relevant bodies (i.e. Fera) if notifiable pests or diseases are discovered (i.e. *Phytophthora* sp, fireblight etc) and will work to assist with the Governments Action Plan for Tree Health and Plant Biosecurity by reporting relevant pests and diseases.

22. Climate Change

A changing climate is likely to have a significant impact on trees in the UK. Trees and particularly those in and around the areas we live will become increasingly important to help mitigate the effects of climate change.

Forecasts suggest that the UK is likely to experience hotter, drier summers (an average warming of 3.9 degrees in the south east of England) and warmer, wetter winters (Defra 2009). There is also likely to be an increase in extreme weather events with a potential increase in flooding and tree failures in high winds. As we have seen research suggests that trees can be very effective in reducing the impacts of high summer temperatures and buffering the impacts of storm water events.

New conditions are likely to increase the growing season for trees, and could allow a new range of species to flourish. In contrast, species which are less suited to warmer, drier summer conditions and the potential for drought may decline.

NFDC will face this challenge by promoting and planting those trees which are likely to be best suited to future conditions with an objective of achieving a diverse tree stock avoiding an over-reliance on single species of tree.

NFDC will follow the guidance of the Tree and Design Action Group and take steps to increase overall canopy cover across the District to provide mitigation for the effects of climate change.

23. Tree Valuation

In recent years there has been an increasing interest in the 'value' of trees and other natural resources. This is reinforced by the Lawton Report (Making Space for Nature 2010) which outlined how the benefits provided are not fully appreciated or valued. There are a number of recognised methods to provide a monetary value to individual or groups of trees. These can take account of the visual or amenity contribution that trees can bring and the eco system services (such as controlling storm water, absorbing pollution and carbon sequestration etc) which without trees would require alternative expenditure.

Street trees in London have been accredited with an average value of £8,000-£10,000 using the CAVAT valuation system. Torbay, supported by Forest Research and Natural England, were the first authority in the UK to apply the i:Tree Valuation System which was developed by the US Forest Service and has been used to value the trees of New York and is currently being applied to London's trees. Torbay's trees were valued at £280 million (structural/replacement value).

These figures illustrate the significant monetary values that can be applied to trees and hint at the likely value of the NFDC tree stock. Trees are a significant asset for the Council and require long term investment and management to maximise the returns.

NFDC will take steps to attribute a monetary value to its tree resource.

Action Point 10 : Establish a procedure to enable the valuation of the NFDC tree stock.

This information will be used to:

- Identify the value of the Councils' tree stock as a whole; with potential to provide additional justification for funding provision.
- Identify the value of individual trees involved in claims of damage or related to proposed developments.
- Identify the value of trees which have been damaged or felled without consent.

24. Consultation, Implementation and Review

This document has been produced in liaison with the Tree Strategy Task and Finish Group and has been passed to the following stakeholders for consultation:

- NFDC Environment Services
- NFDC Planning Services
- NFDC Housing Services
- Forestry Commission
- New Forest National Park Authority Tree Team
- Hampshire County Council Arboricultural Team

An action plan will be set out to direct the Councils' response to meet its objectives within a specific time frame.

Action Plan Points are detailed in Appendix I.

Review

The strategy will be formally reviewed after 5 years to assess its impact, make necessary updates and ensure it is fit for purpose.

25. References

The strategy has been put together with reference to the local and arboricultural knowledge and experience of the Corporate Tree Officers and the approach and practices applied by other organisations involved in tree management in the local area (including the New Forest National Park, Forestry Commission and Hampshire County Council).

Tree strategies produced by the following authorities have also been reviewed:

- Christchurch Borough Council
- Poole District Council
- Test Valley Borough Council
- Fareham Borough Council
- East Dorset District Council
- Hart District Council
- Rushmoor Borough Council
- Basingstoke and Deane Borough Council
- Nottingham City Council
- Newcastle City Council
- Waltham Forest Borough Council
- Colas (managing trees on behalf of Portsmouth City Council)

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26. Appendix I

Action Plans

Action Point	Action	Officer	Schedule
1	Review the tree database system. 14. NFDC Tree Management Systems Page 32	IT Services / Tree officers	2014/15
2	Obtain canopy cover information for NFDC area. 15. Canopy Cover Page 33	GIS officer/Tree officers	2014-2016
3	Increase canopy cover on NFDC land: Use canopy cover information to identify areas with low tree cover and direct resources to undertake comprehensive planting schemes in these areas. Aim to undertake schemes on 10 separate sites. 16. Tree Planting Page 35	Tree officers	2017
4	Explore options to source trees of suitable provenance and quality to ensure future resilience. 16. Tree Planting Page 34	Tree officers	2014/15
5	Review NFDC land in relation to subsidence risk. 10. Damage caused by Trees Page 27	Tree officers	2014/15
6	Undertake woodland management plans for principle woodland sites. 20. Woodland Management Page 40	Tree officers	2014-17

7	Explore alternative sources of funding for planting and woodland management. 16. Tree Planting Page 36 20. Woodland Management Page 40	Tree officers	2014-17 ongoing
8	Take steps to encourage community involvement in tree and woodland management. 20. Woodland Management Page 40	Tree officers / Housing officers	2014-16 ongoing
9	Address fly tipping on woodland and open space sites. 20. Woodland Management Page 41	Tree Officers / Streetscene / Open spaces	2014/15 ongoing
10	Establish a procedure to enable the valuation of the NFDC tree stock. 23. Tree Evaluation Page 44	Tree Officers	2015/16
11	Establish a procedure to ensure that trees are considered when sites are acquired or sold off by the Council. 18. Council Procedures for Property Acquisition and Sale of Council Land Page 38	Tree officers, Legal department, NFNPA tree team.	2014/15
12	Identify veteran trees on Council land and prepare individual management plans where appropriate. 20. Woodland Management and Woodland Biodiversity Page 41	Tree officers	2016/17

27. Appendix II

NFDC Tree Risk Management Strategy 2014/15-2019/20

Attach Link

New Forest
DISTRICT COUNCIL

New Forest District Council

Tree Risk Management Strategy

2014 - 2019

Draft June 2014

Contents

1. Mission Statement

The New Forest District is an area rich in trees, which bring considerable benefits to the local community. The risk associated with these trees is extremely low, however to meet our legal obligations, reassure public concerns, ensure a joined up approach and to comply with industry best practice, the New Forest District Council (NFDC) needs a formal policy to outline how and why it will manage the risks from trees.

Since 2004 NFDC has operated a system of proactive tree management which has been concurrent with industry best practice, although no written policy is currently in use. Trees have been formally inspected every 1 to 6 years based on a categorisation of the risk they pose to people and property. This system has not been reviewed in the subsequent years and is now no longer fit for purpose as site usage has changed and tree characteristics have changed, the categorisations are no longer reliable. Also, in light of current best practice the level and regularity of inspection has arguably been disproportionate to the actual risk of harm and with 6 levels of categorisation, the system is also unnecessarily complicated.

The District Council now undertakes proactive tree surveys on behalf of a number of local Town and Parish Councils and it is essential that we offer a tree management service which is up to date, meets or exceeds industry best practice, fulfils legal obligations, is not unnecessarily complex and is proportionate to the actual risks whilst providing value for money.

This requirement to meet an overzealous standard of inspection has reduced the effectiveness of the corporate tree management, reducing the time available to focus on other tree management issues such as replanting schemes, woodland management plans, improvement works and other strategic objectives as set out in The Corporate Tree Strategy.

The NFDC tree stock is a valuable resource and needs to be managed not just in relation to risk but also more widely in terms of maximising the benefits related to trees and the long term viability of the tree resource. Risk management must form an integral part of a wider process of strategic tree management.

2. Policy, Service Scope and Standards

This policy relates to those trees which grow on land which is owned or under the responsibility of the New Forest District Council. It is not designed to cover trees within private ownership.

This policy is not intended to cover the risks associated with direct or indirect damage to property (i.e. damage via tree related subsidence or by the physical incremental growth of the tree interacting with property). These issues are addressed in the NFDC Corporate Tree Strategy document. It is however intended to cover the risks posed by the failure of trees or parts of trees with the potential to cause damage or injury.

This Corporate Tree Risk Management document is intended to form an integral part of the wider District Council Tree Strategy and will provide part of an audit trail of action taken in response to the potential risks posed by trees and will demonstrate that the Council has met its responsibilities and duty of care as a tree owner in a systematic and reasonable manner.

NFDC will manage its trees in such a way as to meet or exceed the minimum standards outlined by the accepted industry best practice documents; The National Tree Safety Group (2011) (NTSG) and HSE Sector Information Minute (2013) (HSE SIM).

The Council will operate a prioritised system for managing the risk from trees whereby those trees which pose the greatest risk will be assessed and managed first.

The NFDC Tree Risk Management Strategy helps to fulfil the NFDC Portfolio objectives for strategic management of the environment and a commitment to managing public safety.

This policy also supports the NFDC Housing Policy and Open Spaces Policy objectives.

3. The Benefits of Trees

The benefits trees can provide are well documented. These range from significant improvements in air quality, mitigation of the effects of climate change, the management of storm water runoff, improving the perception of the local area, psychological benefits and engendering a sense of community. Trees are also essential wildlife habitats, contributing significantly to local biodiversity.

Trees can help improve health and attract investment to the area and also give considerable interest throughout the year in the form of form, colour, leaves and fruits. Trees can help to break up harsh vistas and soften and give a sense of scale to our neighbourhoods**.**

A more detailed consideration of tree related benefits can be found in the NFDC Corporate Tree Strategy document (add link).

4. The Risks From Trees

Trees pose a very low risk to people and property. Approximately 6 people a year are killed in tree related incidents. In relation to the number of trees within falling distance of people or property this equates to a very low likelihood of harm occurring. The Health and Safety Executive (HSE) states that such a level of risk is broadly acceptable i.e. 1:10,000,000 risk of death. To put this low risk in context there is a 1:16,000 risk of death associated with driving.

Despite this low risk the law requires that the risks from trees are managed in a reasonably practicable manner.

5. Legal Obligations of the Tree Owner/Manager

The key statutory legislation (laws created by an Act of Parliament) relating to a duty of care for tree owners or those responsible for them is the Occupiers Liability Act 1957 and 1984, the Health and Safety at Work Act 1974 and the Highways Act 1980.

5.1 **The Occupiers Liability Act 1957** confers a duty on an occupier to take reasonable care to ensure that visitors to the property are safe from harm. In 1984 the scope of the act was extended to include uninvited visitors including trespassers. This duty to the uninvited is limited to those dangers which the occupier is aware of, those dangers that the uninvited are likely to be forseeably exposed to (i.e. they will be in the area near hazardous trees) and those dangers which the occupier could be reasonably expected to take steps to protect visitors (invited or otherwise) from.

The 1957 Act also indicates in section 2(3) (a) that occupiers *'must be prepared for children to be less careful than adults'* and finally it includes a *'consideration of the circumstances of the occupier(s) and the reasonable availability of measure to prevent injury'.* (Julian Forbes-Laird 2009).

Prosecutions under this act are generally restricted to civil law cases and fall under the tort of negligence.

5.2 **The Health and Safety at Work Act 1974** This Act places a duty of care on employers to those who are not employees. Employers (when conducting their business) must ensure as far as reasonably practicable that persons not in their employment are not exposed to risks to their health and safety. This legislation is typically used in criminal law cases and Birmingham City Council was successfully prosecuted under this act by the Health and Safety Executive (HSE) following a tree failure which killed three people in 1999.

5.3 **The Highways Act 1980** places a statutory obligation on tree owners to prevent trees from causing an obstruction to roads and footpaths.

5.4 **The Countryside and Rights of Way (CROW) Act 2000** indicates that those who utilise their right of public access (under the Act) are not deemed to be *'visitors'*, and therefore their protection comes under the 1984 amendment of the Occupiers Liability Act, however, conversely Section 1 (b) of the Act states that there is no duty owed associated with risks from natural features (which includes trees). The Act also infers that the right of access shouldn't place an unreasonable burden on the occupier and also identifies that maintaining the character of the countryside is important. In practice this could be interpreted to mean that potentially hazardous trees can be retained as valuable habitat or natural features (i.e. veteran trees). This also suggests that any control measures to mitigate the risk from trees is commensurate with the resources available to the owner (i.e. not an *'unreasonable burden'*).

5.5 Another Act which has some limited relevance to tree risk management is the **Compensation Act 2006.** This indicates that risk abatement measures shouldn't lead to the stopping or infringement of a desirable activity taking place. This reinforces the idea that control measures shouldn't be unnecessarily restrictive, and that some exposure to risk is acceptable, particularly when there are associated benefits.

There has been a raft of common law cases which are relevant to the management of the risks from trees. Decisions of the higher courts can set a precedent which is likely to influence future decisions on similar cases. Decisions from the lower courts can still provide a useful insight into the Court's interpretation of the law. (For an overview of relevant case law and best practice see Appendix 3 – Relevant Court Precedent).

5.6 Conclusion

The following conclusions can be drawn from both statute and common law:

- Tree owners and employers have a duty of care to take reasonable steps to protect people from harm.

- What is reasonable is influenced by the level of risk and the level of sacrifice required to control those risks.

- If tree (or limb) failure isn't reasonably foreseeable then the tree owner is unlikely to be found liable for any damages.

- If it's not reasonably foreseeable that persons will be in the vicinity of a tree on private land, the tree owner is unlikely to be found liable for any damages arising from tree failure.

- If it is reasonably foreseeable that people may be in the vicinity of the tree (visitors or trespassers) and if the presence of visible defects renders tree failure foreseeable. The tree owner is likely to be liable for any damages associated with failure if the tree isn't under any form of inspection regime.

- To fulfil their duty of care tree owners should have some form of inspection system in place. This needn't necessarily be carried out by arboricultural specialists, however, judgements in the lower courts indicate that the level and scope of inspection should be commensurate with the means of the tree owner.

- The Courts indicate that it is likely to be acceptable for homeowners to informally assess their own trees providing they can identify obvious defects. It follows that a local authority or large estate owner would be expected to have a more rigorous system of inspection than a private householder. However all parties should as a minimum have some system in place.

- Lower levels of land use or lower targets will require correspondingly lower levels of inspection.

6. Site Zoning

All trees under the responsibility of the District Council will be zoned according to the risk they could pose to people or property. Zones will be assigned based on two distinct features:

(a) **Targets**
'Persons' or property, or other things of value, which might be harmed by mechanical failure of the tree, or by objects falling from it (Lonsdale 2010). This could be static (i.e. a house) or mobile (a car/pedestrian).

(b) **Frequency of Use/Occupancy**
What is the likelihood of damage or injury occurring (how often or for how long is the 'target' within falling distance of the tree?).

This approach follows the recommendations set out in industry guidance (particularly HSE SIM and NTSG documents) and allows a prioritised approach to risk.

Three distinct zones will be identified as Low, Medium and High, and sites will be attributed to a zone or zones via a desk top study by the tree team in conjunction with other staff who have relevant local knowledge of the actual land usage and tree characteristics on the ground for individual sites (i.e. Grounds Maintenance operatives).

Some sites (particularly larger areas) may be attributed to more than one zone to reflect different levels of land use across the site. However, where practical, in the interests of clarity a site will be allocated to a specific zone and this will reflect the highest risk posed by trees on the site. (i.e. for a site with 30 trees, 10 of which border a high use road/High Zone and 20 of which are located within an open space/medium zone – the site will be classified as a High Zone and inspected every 2 years).

Within this system people will be given a higher priority than property, this is not only morally justified but also in pecuniary terms. Insurers typically place a value of around £1 million on a human life, which rightly gives it precedence over items of property.

It must be recognised that people will often be found within property (cars/buildings), although these may afford them a certain degree of protection. Records indicate that vehicles (and the people using them) are one of the most at risk groups because of the high speeds involved. Trees may not actually fall onto vehicles to cause damage; vehicles often will hit trees which are lying across a highway.

Following the initial inspection of each site the zone allocation will be reviewed and if appropriate the site will be reclassified to reflect the actual level of risk.

Zones will be continually reviewed to ensure that they reflect the current situation on the ground and will be updated on an ad hoc basis as site usage changes.

High Zone: e.g. Main roads (A and B roads), residential and business properties, Council depots, high use footpath, car parking (typically full all day). Trees adjacent to railway lines, school playgrounds and play areas.

Formally inspected every two to three years and formally reactively inspected in response to enquiries. Subject to informal observation during normal Council activities.

Medium Zone: Lower use roads (C and D roads), Open spaces with regular use, cemeteries, regularly used footpaths, intermittent car parking (rarely full), trees adjacent to domestic gardens.

Formally inspected every four to five years and formally inspected reactively in response to enquiries. Subject to informal observation during normal Council activities.

Low Zone: Low use footpaths/desire lines (<1 person per day), trees alongside waterways, low use open spaces.

A formal walk or drive by group (overview) inspection every 5 years around the perimeter of the site and along any routes of access such as footpaths.

Trees will only be assessed individually if the group 'overview' inspection identifies an obvious hazard.

Formally inspected reactively and subject to informal observation during normal Council activities (this is unlikely to be highly onerous and will also be useful in informing the management decisions for lower use sites - i.e. potential for replanting, pest and disease management etc).

All zones will be uploaded onto the tree management data base so that inspectors on the ground have clear information as to what is to be surveyed and when.

Research from USA indicates that trees with a diameter greater than 150mm (measured at 1.5m height) are most likely to fail. This also follows the generally accepted understanding that younger trees are less likely to fail, and that if a low diameter tree fails it is likely to have a less significant impact than a tree of larger dimensions. Based on these assumptions it is reasonable to limit resource allocation to the inspection of those trees with a diameter of more than 150mm. This will not remove the ability of the inspector to prescribe remedial works to trees of lower diameter however it will allow resources to be focused on those trees which present the greatest risk.

The inspection of zones will be rotated when feasible to allow trees to be assessed at different seasons of the year when structural form is more apparent (i.e. in winter), crown condition is visible (mid summer) and annual fruit bodies of decay fungi may be present (generally spring to autumn).

7. Frequency of Inspection

There is little formal guidance on appropriate time scales or intervals for tree inspections. The industry consensus is generally that between 1 and 5 years is appropriate (The Department for Transports 'Well Maintained Highways' (2005) recommends that highway trees require an arboricultural inspection every 5 years).

Case law suggests that 2 years (Guildford v Payne 2006) or 3 years (Chapman v London Borough of Barking & Dagenham 1998) is a reasonable inspection interval for high use sites and the National Tree Safety Group (NTSG) outlines that it is likely to be reasonable that high use sites are inspected every 2-3 years and possibly annually via a drive by for highway trees.

As outlined above, trees within falling distance of people or property within high risk zones will be assessed every 2-3 years and within medium risk zones will be assessed every 4-5 years. Such trees within low risk zones will be subject to an overview group inspection (typically walk or drive-by as determined by practicability) every 5 years.

It is clear from guidance that it is not essential for all trees to be proactively inspected. The key to a reasonable system is to prioritise those trees which pose the greatest risk and to focus resources on their management. Because of the very low risk that trees pose, it is reasonable not to individually inspect trees on low use sites. This is also borne out by case law, tree risk guidance (NTSG and HSE SIM) and other industry best practise.

NFDC will however monitor the condition of trees on low use sites both formally and informally and this will be incorporated into the general management of such sites (i.e. consideration of improvement works, replanting etc).

8. Interim Inspections

Where individual trees present a particularly significant risk due to their location, condition or other variable (i.e. veteran trees, neglected pollards etc) and this risk is considered to require a higher level of inspection frequency than the allotted zone prescribes, these will be designated an individual re-inspection interval. This will be maintained on the tree database, producing a monthly list of individual trees to inspect. It is anticipated that this will not be overly onerous as the majority of trees will be in such a condition (potentially following remedial works) that they will not require an interim inspection.

It is envisaged that the majority of trees will not stay on the re-inspection register for long periods but following re-inspection will either be allocated to the zone associated with the site (potentially following remedial works) or will be removed. This will facilitate a degree of flexibility within the system which will be reasonable and achievable.

9. Level of Inspection

9.1 Informal Observation

The vast majority of trees for which NFDC are responsible will be subject to regular informal observation by Council employees as they go about their normal work activities. Many Council staff (Building Works, Planning, Grounds Maintenance Operatives, Refuse Collectors etc) spend a considerable amount of time out on a variety of sites in the course of their work. Such staff are a useful resource to monitor the condition of the tree stock and report and signs of obvious hazards. Any issues of concern will be raised as an enquiry with the Tree Officer and if deemed appropriate, a formal reactive inspection will take place.

9.2 Formal Proactive Inspections

Are programmed into the tree inspection diary and an individual site will be visited with the specific intention of carrying out a visual assessment of those trees which pose a risk to a target (i.e. a person or property).

Situations where trees are not within falling distance of areas frequented by people or property (i.e. in woodland, well clear of paths, roads and property), a formal inspection will not be required, however they will be considered by the inspector on site and if deemed appropriate (because of their size, condition or the potential for change in frequency of use) they may be included in the formal inspection.

For low use zones a formal ‘group’ overview assessment will take place. This will generally be conducted via a walk or drive by survey.

9.3 Formal Reactive Inspections

Such work occurs in response to enquiries from the public or other Council staff (resulting from their informal observations). When reactive inspections take place the inspector will have the opportunity to carry out a brief superficial observation of adjacent trees to observe any obvious defects.

All enquiries from the public, Council employees or other bodies (i.e. police, highways etc) will be logged on the tree enquiries database and will be allocated priority based on information obtained at the point of contact. If necessary a follow up call will be made by the Tree Officer to clarify the likely level of risk posed by the tree in question. The priority will relate to the time between the initial enquiry and a site visit. This is important as it provides a reliable audit trail regarding the response and resolution of enquiries and also reduces the risk of reported tree issues being 'lost in the system' if they are only handled informally. In the event of a tree failure following an enquiry the Council will be able to demonstrate that it responded in a reasonable manner.

Priorities will be classified as **high** (as soon as reasonably possible, within a maximum of 1 week), **medium** (within 1 month) and **low** (within 3 months).

9.4 Detailed Inspections

Such inspections will be carried out when an individual tree inspection identifies a significant defect which requires further investigation to inform a reasonable management decision. This includes the use of aerial inspections to assess defects such as cavities which cannot be adequately assessed from ground level. An assessment of the roots and lower stem base may be required via hand digging/compressed air or the use of diagnostic decay detection devices in order to establish the extent of decay in the tree. Where further investigation requires equipment unavailable to the Tree Team or where the issue requires specific expertise a suitably qualified consultant will be instructed with experience in the relevant field to inform the decision making process (i.e. Chartered Forester, AA approved consultant, Level 6 Arboricultural qualification etc).

10. Competency of the Inspector

Formal proactive and reactive inspections will be carried out by Council employees who hold the Lantra Professional Tree Inspection Certificate as a minimum and ideally hold or be working towards an NQF level 3 arboricultural qualification. This level of qualification meets and exceeds industry best practice and case law interpretations of what is reasonable.

The Corporate Tree Manager will also prepare a short presentation and handout for Grounds Maintenance staff and others who are regularly out on Council owned land outlining obvious signs of hazard including standing dead trees, decay fungi and root heaved trees. This will help to formalise a process of observation and reporting which is already in place within the authority. Many of these staff, arguably already have a reasonable working knowledge of trees.

The use of digital cameras and site visits will help to inform the process and will encourage a joined up approach and promote an increased shared knowledge of trees, defects and appropriate remedial action.

11. Remedial Works

Resulting remedial works will be discussed with and approved by the Corporate Tree Team and arranged with the Corporate Tree Contractor for completion within the following time scale.

- **Urgent**

  Immediate or as soon as reasonably practicable (generally within 24 hours)

- **High Priority**

  Up to 1 month

- **Medium Priority**

  1 month to 3 months

- **Low Priority**

  3 months to 12 months

12. Record Keeping

A programme of inspections will be maintained outlining the forthcoming year's inspections (this will be organised in a 4-5 yearly block). This will include the programmed month of completion and the actual date the survey was completed.

All formal group or individual tree inspections will be recorded on the tree management database. The date of inspection and the name of the inspector will be updated at each inspection along with any relevant details relating to the condition of the tree or any necessary remedial works. This will apply for groups or individual trees.

For woodland sites or large groups of trees, the group as a whole will be plotted using the 'group' outline on the tree management database. A general description of the group including an estimate of the number of trees present can be described along with a list of the main species and predominant average estimated dimensions.

In the interests of clarity on such sites only those trees with significant defects will be recorded as individuals, as plotting and recording every tree would result in an incomprehensible plan.

For low use zones the entire zone will be updated with a date of inspection and the name of the inspector. If any individual trees are identified as requiring works or re-inspection, this will be logged as an individual on the tree management database.

All trees within falling distance of a target will be assessed as prescribed by the allocated zone.

NB: At the time of writing NFDC is reviewing its tree management system and any subsequent changes may result in amendments to the record keeping process.

13. Tree Inspection Process

Trees will be visually assessed from ground level using the Visual Tree Inspection procedure (VTA); this involves the systematic assessment of all parts of the tree from rooting area, base, stem, limbs, branches, twigs and leaves/buds. VTA is based on an understanding of the *'body language of trees'* (Mattheck Breloer 1994) and has three stages:

13.1 A visual inspection of the tree, assessing vitality, defects and other symptoms. If no significant concerns are found the inspection is complete.

13.2 If a defect is suspected it must then be confirmed by further examination.

13.3 If a defect is found it must be measured and the strength of the remaining part of the tree must be evaluated.

The VTA system forms the basis of the industry excepted method of tree assessment; it is also an integral part of the Lantra PTI course and has been recognised in court cases across the world.

Information to be Recorded

The survey of all (individual) trees will record the following information, which will be updated as necessary at each subsequent inspection.

- Date of inspection and name of inspector
- Tree species, age class and estimated dimensions (height, spread and stem diameter at 1.5m)
- An overview of tree condition (good, fair, poor, dead).
- Any significant defects (if no such defects are visible this will be left blank and can be interpreted to read 'no significant defects recorded').
- Any remedial works required including a time scale (as specified above).
- Remedial works completed (including date).

Trees will be colour coded as follows:

Red Tree to be removed.

Yellow Tree has significant structural defects for which remedial works are not considered appropriate at this time to enable further assessment and monitoring.

Green Individual tree which may have significant structural defects for which remedial works have been recommended.
Trees without significant defects, which require remedial works (i.e to abate a nuisance).
Trees without significant defects which do not require works recorded for inventory purposes.

Blue Uncertain ownership (seek clarification).

Pink Not possible to access the tree during the proactive survey. Alternative arrangements required to facilitate inspection.

A majority of trees have already been historically plotted on the tree database with only three colours (red - fell, yellow – significant defects and green-no significant defects) as based on the 1992 risk management system. The reclassification of colour coding will take place at all subsequent inspections. It is therefore anticipated that all sites will reflect the above system of colour coding within 4-5 years.

Trees requiring works will be highlighted with a numbered tag.

Tree work orders will be generated via the tree database system and will provide an additional audit trail of works passed to the contractor for completion. The subsequent detailed invoice (including a breakdown of tree work orders) will also provide a proof of completion. A minimum of two sites from each invoice will be subject to a follow up check to ensure that the work has been completed to the appropriate standard. The tree team will also conduct at least one recorded site safety audit every month to check the contractors work on site and compliance with best practice.

14. Failure Log

A failure log will be maintained recording all failures of trees managed by the District Council. Details including the date, location, species, probable causal factor, impact (i.e. damage to fencing/insurance claim) remedial action and an assessment of forseeability will be recorded. This information will be extremely beneficial to help illustrate the actual risk from trees in the District and can highlight patterns which can inform future management and the effective allocation of resources.

15. Review

The risk management system will be reviewed every 5 years by the tree management working group. The zoning system will be refined as sites are assessed and can be updated on an *ad hoc* basis to reflect changes in land use.

Prior to implementation this risk management policy will be compared and contrasted with other local authority risk management policies and will also be passed for consultation with experienced tree managers from other local authorities and insurance company representatives for their comment.

The five yearly review will involve an assessment of whether the system complies with current industry best practice and consider areas for improvement and the potential re-allocation of resources.

The failure log will be reviewed and trends identified to inform any necessary adaption of the policy/system and to allow the effective allocation of resources.

The performance indicators will be reviewed to see if the policy has been implemented successfully and if it has effectively met its aims and objectives. A new suite of performance indicators and objectives will be laid out following the review and this in turn will be assessed at the next period of review.

16. Audit

An internal or external audit should be carried out to inform the 5 yearly review. This will help to validate the risk management system, highlight any areas for improvement and ensure that it is fit for purpose.

This should be conducted in a checklist format to review the system. Details to assess will include the quality, accuracy and consistency of data recorded, whether the inspection timescales are being met, if works are being completed within their allocated time scales and other objectives set out in the Action Plan (Appendix II). This process will assess whether the system parameters have been adhered to and if key performance indicators (Appendix I) have been met.

Senior management should be advised of the results of this process along with recommendations for improvement. It is important that all parties are aware of the risks of non-compliance with the strategy (i.e. potential liability). Future reviews should consider whether recommendations are being fulfilled.

17. System Operation and Parameters

The following quantifiable parameters outline the boundaries of the risk management system and must be adhered to. Any failure to follow the strategy will undermine its effectiveness and will reduce its defensibility in court.

17.1 95% of trees will be inspected within their designated inspection times (except with prior approval with the Head of Service).

17.2 95 % of high and medium priority tree works will be completed within their allocated time scales.

17.3 Comprehensive records will be kept including the date of inspection, the name of the inspector and records of any trees found with significant defects and subsequent action taken.

17.4 All persons formally inspecting trees will be appropriately qualified (LANTRA Professional Tree Inspection qualification as a minimum), training programmes will be followed and suitable records kept including the date of training, qualification achieved, along with copies of any certificates.

17.5 Current industry best practice in relation to tree risk management will be adhered to (NTSG, HSE SIM).

18. References

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19. Appendix 1

Key Performance Indicators

The following Key Performance Indicators are designed to be a measurable tool to illustrate the effectiveness of the risk management system.

- 95% of trees in the high use zone will be inspected within their designated time frame.
- 95% of works specified as ‘Urgent’ will be completed (or sites made safe) within 7 working days.
- The Failure Log will be completed in full for 95% tree failures.
- The Corporate Tree Risk Strategy (including the system of zoning) will be reviewed every 5 years and following the review action plans will be drawn up and implemented.
- 95% of fields specified as necessary on the Tree Specific Database will be completed for each tree recorded.
- The obvious defects information sheet will be compiled and passed to all relevant operatives within 12 months in conjunction with a short presentation.

20. Appendix 2

Action Plan

Year 1-5

- Review the tree specific database system
- Zone all sites (on a priority basis)
- Carry out 50% of high zone inspections every 18 months
- Carry out 25% of medium zone inspections every 15 months
- Reclassify all trees inspected with updated colour coding and refine zones if appropriate.
- Carry out all remedial works within recommended time frame.
- Produce and distribute guidance relating to tree defects for relevant Council staff.

Year 5

- Audit and 5 yearly review
- Carry out overview survey of low category sites

21. Appendix 3

Relevant Court Precedent

Rylands v Fletcher (1868) In this case a landowner employed a private contractor to install a reservoir on his land. The contractor found unused mine shafts in the excavation and failed to seal them properly. When the reservoir was flooded water broke into the mine shaft and made its way into the mine shaft of the neighbouring property causing damage. This case set out the principle that where a person has something on his land which may harm a neighbour he must keep it within his property. If this isn't maintained and his neighbour is harmed (or his property) then the owner is likely to be liable. The principles set out in this case have been applied to trees, particularly in relation to poisonous foliage (i.e. yew) and livestock (i.e. Crowhurst v Amersham Burial Board 1878).

Noble v Harrison (1926) Person injured by a falling branch. The tree had been recently inspected and the failure was not deemed to be foreseeable. Tree owner not liable.

Donoghue v Stevenson (1932) A Scottish woman brought and consumed a bottle of ginger beer in a cafe. A snail was found in the bottle and the woman later became ill and sued the manufacturer. It was found that the producer of the ginger beer had breached his duty of care by failing to ensure that the product didn't cause harm to its consumers. This important case set out the modern understanding of negligence and the duty of care owed by one person to another.

Shirvel v Hackwood Estates Co Ltd (1938) A tree standing in the grounds of a recently acquired large estate, with many dead and dangerous trees present, collapsed and killed an estate worker, who was working in a seldom visited part of the property. The tree owner was found not liable. This Appeal Court judgement indicates that the courts consider both the resources of the tree owner (there were many trees which required attention) and the frequency of use of the particular location.

Edwards v National Coal Board (1949) This significant case outlined the basis of what is reasonably practicable in relation to reducing risks. The case itself involved a miner who was killed in a rock fall; the claimant's argument was that the employer/land owner should have taken steps to control the risks. The key question in this issue was: Is it reasonable to shore up all tunnels in the mine to remove the risk of collapse. The judgement found that this wouldn't be reasonably practicable and that only those sections of tunnel which posed the highest risk needed remedial action. The judge (Asquith) described a reasonably practicable approach to risk management as follows: *"risk is placed in one scale and the sacrifice involved in the measures necessary for averting the risk (whether in time, trouble or money) is placed in the other"* he went on to suggest that if the sacrifice greatly outweighed the risks then this wouldn't be a reasonable response. This case highlights the requirement to assess the risks and to quantify the necessary control measures before making a balanced decision about what is a reasonably practicable approach.

Caminer v Northern & London Investment Trust Ltd (1951) This case related to a person injured by a falling branch. The tree was not under any form of inspection and as such the tree owner was considered negligent, however because the defect which led to the failure of the branch was not judged to be foreseeable the tree owner was found not liable. This case is significant because it highlights the requirement for some form of inspection to meet the tree owners' duty of care and also that if tree failure isn't foreseeable then the owner of the tree is unlikely to be liable for any associated damages, regardless of whether the tree had been inspected.

Brown v Harrison (1947) and Quinn v Scott (1965) The trees in these cases hadn't been inspected and defects which led to tree failure were considered to be foreseeable. The Defendants' were found to be liable. These cases are key because they highlight the importance of forseeability of harm (i.e. obvious tree defects) and also that in these situations failure to assess trees amounted to a failure in the tree owners' duty of care (negligence).

Leaky v National Trust (1980) Established the principle that the owner of land owed a general duty of care to his neighbour in relation to a hazard on his land whether man made or natural (and a requirement to take reasonable steps to prevent foreseeable harm). In this instance it involved unstable cliffs that resulted in a land slip. The owner of the cliff was aware of the instability and failed to take action to stabilise the land which resulted in damage to the claimants land. The defendant was found to be liable.

Chapman v Barking & Dagenham LBC (1997) A member of the public was injured by a falling branch. The court found that the Local Authority didn't have an appropriate formal inspection process in place which would have identified the hazard and they were found liable for damages.

Tomlinson v Congleton Borough Council (2003) A young man ignored warning signs and dived into a lake which was out of bounds and received severe spinal injuries. The claimant brought an action against the owner of the land under the *1984 Occupiers Liability Act* arguing that the landowner hadn't fulfilled their duty of care to him and that the state of the land led to his injuries. The court found that the Council had acted reasonably by erecting warning notices and patrolling the area. This case is important because it identifies the courts recognition that individuals must be responsible for their own actions. In the broader context this case also indicates that the public can be given access to potentially dangerous natural features at their own discretion. This has similarities to elements of the *Countryside Rights Of Way Act 2000* which states that no duty of care is owed in relation to natural features to persons exercising their right of access.

McLellan v Forestry Commission (2005) A tree fell and killed a walker on a low use woodland footpath. The tree was regularly but informally assessed and no defect was 'obvious'. This level of inspection was deemed to be appropriate in relation to the target and the defendant was found not liable.

Other Case Law from Lower Courts

A weakness of these cases is that they can be misleading and do not set a legal precedent, if treated with caution they can however still act as a useful indicator of the courts' interpretation of events.

Kent v Marquis of Bristol (1940) In this case a large elm fell in a storm and resulted in the death of a motorist. The tree had a foreseeable defect (decay cavity) and had not been inspected. The owner of the tree was found to be liable for damages.

Poll v Bartholomew and Bartholomew (2006) In this case a motorist collided with a fallen ash tree. The tree was multi stemmed and had been subject to a drive by inspection by a forester (not a 'level 2' inspector). The forester failed to appreciate that the multi stemmed ash could pose a risk and should have inspected it more closely (recognising the fact that a multi stemmed ash is likely to have included bark and would need closer inspection). There was a fungal bracket at the base of the tree which may also have been identified by a more competent inspection. This case found that this tree should have been assessed by a 'level 2 inspector' and found the tree owner liable. This case should be treated with caution however as it has been dismissed by some commentators as a misguided judgement which also doesn't constitute a precedent. Bennet (2010) states "*Poll cannot be taken at face value as authoritatively setting a generic requirement for 'Level 2' inspections*".

Corker v Wilson (2006) In this case a motorist was injured by a falling branch. The tree was owned by a private householder who regularly informally assessed his own trees. The failure of the branch was not deemed to be foreseeable and the tree owner was not found to be liable. Interestingly this case refers to the Poll case with descriptions of Level 1 and 2 Inspectors and also suggests that the court found the homeowners inspection of his own trees acceptable. This case rests on the fact that the failure wouldn't have been foreseeable even to an expert. The results of this case suggest that for domestic properties an informal inspection by a lay person/householder is acceptable to meet their duty of care.

Atkins v Scott (2008) Involved a motorist who was injured by a falling oak limb. The tree had been inspected informally within the previous 12 months by a person who, though not a trained arboriculturist had a good working knowledge of trees. The defendant was found not liable because the defect/failure wouldn't have been foreseeable and also the system of inspection (informal) in place was deemed to be adequate.

Selwyn-Smith v Gompels (2009) An Austrian pine fell onto a garage injuring the occupant and causing damage. The tree had only been subject to an *ad hoc* informal inspection by the defendant (a "mere householder" and lay person). The judge stated that *"the standard of the duty owed by a landowner to act in respect of natural circumstances on his land (and his corresponding duty of care) varies according to his resources".* The judge also commented that *"the law does not then require the landowner to engage an expert unless and until reasonable inspection by the standards of that knowledge discloses or should disclose that the tree might be unsafe".* In this case it was agreed that the failure of the tree wouldn't have been foreseeable to a layperson but may have been detected by an expert. Finally the judge suggested that the homeowner had acted in a "practical and sensible manner commensurate with the size of his property" and found in the defendants' favour. It is significant that this case indicates that it may be acceptable for homeowners to assess their own trees for obvious signs of failure and thus meet their duty of care. This judgement reiterates the earlier similar judgement in *Corker v Wilson (2006)* adding further weight to the interpretation. This case is also interesting because it clarifies that even if failure may have been foreseeable to an experienced arboriculturist the homeowner may not be liable because they have acted reasonably by assessing the trees themselves with their limited knowledge of tree defects.

Micklewright v Surrey County Council (2010) A man was killed by a fallen oak limb which fell on a car park. The Highways Authority was responsible for the tree and had recently put in place a system of inspection (by competent assessors) which would in time have included the tree. At the time of failure however the tree hadn't been assessed. Despite the fact that an 'adequate system' had been put in place, because it had yet to include the tree it was not deemed to be 'adequate' yet. In this case a major feature was the forseeability of the defect which lead to the failure of the limb. The judge heard a detailed discussion of the forseeability of the defect and found that in this instance it wasn't foreseeable and therefore the authority responsible for the tree was not liable. This case is interesting because of the detailed discussion of forseeability and also because the judge clarified that if a system of inspection is in place but hasn't yet assessed all the trees within its remit it cannot be deemed adequate. It is important to note however that the courts are likely to look more favourably on the tree owner with some system of inspection in place (even if it is incomplete) rather than those with none.

Bowen and Others v National Trust (2011) This High Court case involving a large beech tree which failed onto a woodland path, revolved around the foreseeability of the tree failure, the frequency of inspection (every 2 years) and the competency of the inspector who had last assessed the tree. The Judge ruled that the defect was not reasonably foreseeable and that the inspector was suitably competent to assess the tree (as a forester he had a working knowledge of trees and had also undertaken specific tree inspection training). The National Trust was found not liable.

Much of the case law gives some assessment of whether the level of inspection was adequate, this is often offered regardless of whether the failure was foreseeable and gives some indication of how the lower courts interpret events.

Industry Best Practice

Health and Safety Executive Sector Information Minute (HSE SIM) (2013)

This key document was written specifically for HSE enforcement officers to give guidance on the standard of risk management of trees. The remit of the document is to outline the minimum level of risk management which would be sufficient to meet a tree owner's duty of care under Section 3 of the Health and Safety at Work (HSW) Act 1974. Whilst this guidance isn't intended as a guide to tree owners or employers it does give a useful indication of what the baseline or minimum acceptable level of inspection is likely to be. It's important to note that this guidance is specific to the viewpoint of the HSE in relation to the HSW Act and doesn't necessarily reflect the law in relation to the tree owners' duty of care (more specifically, civil law or the tort of negligence).

This document highlights the very low risk which trees pose (risk of death per person of one in ten million) which falls within the *"broadly acceptable region of the tolerability of risk triangle".* It suggests that *"control measures that involve inspecting and recording every tree would appear to be grossly disproportionate to the risk"* and continues that tree risk management should form a part of the *"overall approach to tree management"* along with managing a healthy tree stock and environment. The HSE outline the importance of zoning sites in relation to frequency of use (level of target) and recommend that a minimum of two zones is established (high use and low use).

A summary of the HSE outline for an effective risk management system is as follows:

1. Assess the overall risk from trees. Establish a minimum of two zones to identify those areas with the greatest risk.

2. Put in place a *"system for periodic, proactive checks....quick visual checks for obvious signs (of instability)....be carried out by a person with a working knowledge of trees and their defects, but who need not be an arboricultural specialist".* The system must be applied and monitored.

3. Maintain a simple record to note when a zone has been inspected, records of individual trees is unlikely to be required except under specific circumstances (where trees with significant defects are retained in high use zones).

4. Have in place a system to obtain specialist assistance when issues identified are beyond the scope of the inspector.

5. Procedures to ensure public safety during high winds (such as restricting access to formal open spaces).

6. Have in place a system to allow and record individuals to report tree issues. Monitoring should be in place to ensure that the system is effective.

National Tree Safety Group (NTSG)

This recently published document has the potential to be very significant. It could effectively replace the HSE SIM as the baseline for tree risk management. This will occur if it is widely accepted by the arboricultural industry as the minimum standard and therefore can be used by the courts to reflect the current industry consensus. This document attempts to address the disproportionate response to the very low risk of harm from falling trees. It interprets statute and common law and gives examples of the minimum level of risk management that is expected from those responsible for trees in a range of situations. The guidance suggests (in line with *HSE SIM*) that those carrying out tree inspections do not need to be arboriculturists, but that most hazardous trees are obviously hazardous and that experts do not need to be involved until obvious hazards have been identified or tree defects which require expert opinion are discovered. This document has a greater scope than *HSE SIM* as it encompasses all legal perspectives.

NTSG Case Study Summary

Local Government Organisation

The land holding should be reviewed and zones established to indicate areas of high and low use. Staff with a good working knowledge of trees should carry out formal inspections of trees within high use zones and keep a record that the zone has been assessed, (low use zones may be assessed on a reactive or *ad hoc* basis when the Council employees are conducting their normal activities). Following this survey a suitably qualified and insured competent person/arboriculturist (qualified to a minimum of NQF level 3 or equivalent) should be referred to for any assessments which are beyond the experience of the formal inspector. Records should be kept to reflect defects found and any action taken. The frequency of inspection will be commensurate with the level of risk/site usage but every 1 to 5 years is likely to be acceptable.