

Tree Asset Management Plan

County Council trees and woodland assets 2023-2033

lancashire.gov.uk

Contents

1. Summary

SECTION ONE – Background and Scope

- 2. Why is an asset management plan required?
- 3. Scope of the asset management plan
- 4. Vision statement
- 5. Purpose and goals
- 6. Delivery
- 7. Stakeholders and governance
- 8. Sustainability
- 9. Woodland Management

SECTION TWO – Management and Inventory

- 10. Existing tree management and inventory
- 11. Maintenance request handling policies
- 12. New planting species selection
- 13. Design issues and guidance for new planting
- 14. Review and performance monitoring
- 15. Trees planted under licence
- 16. Tree preservation

1. Summary

This Tree Asset Management Plan is the counterpart of the Tree Risk Management Procedure. The Plan provides the strategic policy on how the county council's arboriculture assets with be managed during the life of the asset management plan. Section two provides several management policies in relation to managing the assets and considering requests to prune or remove trees.

The Plan recognises that there are often multiple demands and pressures on the finite planting space available within the county council's estate. Design guidance is included to ensure that new planting schemes are fit for the site and provide the maximum betterment value.

The Plan sets out the type and extent of pruning which would be considered acceptable when a maintenance request is submitted from a customer and details the issues considered by staff when making such decisions to provide clarity for customers and elected members.

As with all landscape management plans, the Plan defines a clear vision for the development of these assets. Governance of the Plan is also detailed along with policies on sustainability and tree preservation matters with district councils.

SECTION ONE – Background and scope

2. Why is an asset management plan required?

The county council is responsible for maintaining 7,000km of highway, much of which has trees growing alongside. There are approximately 800 hectares of accessible recreational countryside sites and hundreds of small incidental sites across the county council's estate, including many around operational premises. These contain tens of thousands of tree assets owned by the county council. There are in the region of 250 operational sites which have trees growing within their grounds, some with substantial tree populations.

Our countryside service oversees the management and maintenance of 82 countryside sites.

As custodians of these trees there is a clear duty to ensure that best practice management and maintenance is in place.

The benefits of growing healthy vigorous trees on publicly accessible land and of living and working in a green and leafy environment are well known and universally recognised. This betterment can be categorised in the following ways:

- Improvements to air quality
- Temperature moderation
- Flood risk reduction
- Water quality
- Carbon capture
- Habitat and biodiversity
- Health and wellbeing
- Added asset value

This Plan aims to provide a clear approach to guide and inform the management and development of these arboriculture assets and maximise potential opportunities for improvement where appropriate.

In terms of replacing trees lost on the highway, the current policy in the Highways Management Plan has a policy preventing new or replacement tree planting within adopted highway verges. The Plan states:

"Replacement of trees we have felled - The county council will not replace trees we have felled for whatever reason. However, we will allow a district or parish council to fund a replacement tree..... "

The adoption of this tree management plan removes the above no re-planting policy.

This makes a significant amount of potential planting sites available and will allow those existing street trees which have been found to have died or become unstable to be removed and replaced with young healthy trees. Design guidance is included to ensure that new planting schemes are fit for the site. The new approach also helps to implement Section 40 of the Natural Environment and Rural Communities Act 2006 as amended by section 102 Environment Act 2021 which places a duty to conserve and enhance biodiversity on local authorities in England. As such the county council must from time to time consider what action it can properly take to further the general biodiversity objective when revising existing or creating new policies.

3. Scope of the asset management plan

This tree asset management plan will govern the management of all existing trees and guide future tree planting schemes across the county council's estate. This management plan will run from 2023 to 2033.

One of Lancashire County Council's key corporate priorities is to 'Protect our Environment' and the high-level view of how this will be delivered is presented in the Environment and Climate Strategy for Lancashire County Council (2023-2025).

This plan supports delivery against many of Strategy's objectives as follows:

Reducing waste and tackling pollution:

- 1. Reducing waste and increasing reuse and recycling
- 2. Improving air quality
- 3. Improving water quality

Climate change:

- 1. Reducing greenhouse gas emissions to lessen the impacts of climate change
- 2. Ensuring our infrastructure, assets and services are resilient to the impacts of climate change
- 3. Managing flood risk and water resources

Natural and historic environment:

- 1. Conserving, restoring, re-establishing and enhancing habitat quality and species diversity
- 2. Ensuring our residents have access to high quality, natural spaces
- 3. Conserving and enhancing our historic environment and outstanding landscapes
- 4. Using nature-based solutions to tackle climate change

4. Vison statement

The county council aims to deliver trees and woodlands for the communities of Lancashire to enjoy which are safe and resilient to change.

5. **Purpose and goals**

Trees are by no means permanent landscape features so even the most persistent of specimens eventually require removal. There is then the additional pressures from new and emerging infections such as the current situation with ash die back disease.

This plan seeks to ensure that continuity of tree cover across the county council's estate is maintained and as such every tree removed is replaced. It is acknowledged that tree cover should be increased rather than just maintained.

Current woodland cover across Lancashire is at 5.7%, the county councils' Environment and Climate Strategy 2023-2025 acknowledges that work is needed to increase this to work towards the governments ambition of 12% woodland cover by 2050. Tree planting targets for land owned by the county council will be established, informed by the new statutory Local Nature Recovery Strategy for Lancashire when it is prepared and adopted.

However, it is recognised that the county council's estate is limited, and we do not own significant tracts of land that are not in operational use. In addition, there are often competing interests on the limited land holdings of the county council. For example, land that isn't in day-to-day operational use can be within areas of search for new uses such as renewable energy, carbon capture, nature recovery, countryside recreation and active travel.

Nevertheless, there is an abundance of external funding opportunities for new and replacement tree planting. Such schemes will be energetically pursued to deliver new tree planting at scale – but balanced with the alternative new uses set out above. It is envisaged that most of the future funding will come from external grant awards through actively seeking out tree planting grants for sites across Lancashire.

Exemptions to this replacement policy are trees which are naturally lost through windthrow (blowing over in storms) or just die naturally within woodland settings as these are replaced through natural regeneration. The success of this being considered in the appropriate woodland management plan.

Another exemption is any trees which are removed as part of a woodland thinning program on sites which are too dense and as such hinder greater biodiversity and overall condition of the woodland compartment.

6. Delivery

The Tree Asset Management Plan will be delivered collaboratively across the council, pursuing external funding opportunities through the county council's new Treescapes Team to deliver new tree planting at scale.

7. Stakeholders and governance

A Tree Asset Management Plan Officer Working Group will be established comprising senior officers from the county council, service users and volunteers (representative from local tree planting and conservation groups). This working group will meet quarterly to discuss progress on delivery and any emerging tree related matters.

8. Sustainability

In delivering the Tree Asset Management Plan consideration will be given to environmental sustainability by:

- Wherever possible, sourcing nursery stock locally from within Lancashire, subject to the appropriate procurement rules and regulations.
- No plastic tree shelters, or rabbit guards will be used on planting schemes to prevent any plastics from entering new woodland areas.
- No inorganic fertilisers or peat-based compost will be used in any planting scheme, should any soil improvement be needed this will be achieved using organic fertilisers and peat free composts.

9. Woodland management

The county council is responsible for managing and maintaining many hectares of publicly accessible woodland for recreational activities which would benefit from renewed focus. This approach seeks to explore opportunities to increase biodiversity and provide safer public access.

To ensure that these woodlands meet their full potential in terms of biodiversity, habitat provision and recreation, each woodland will benefit from the creation of a bespoke woodland management plan. These management plans will set a clear vision for the development of the woodland and detail their management and maintenance needs such as dealing with invasive exotics, restocking, coppicing or thinning operations. Once the management plans have been produced the resources required to complete these interventions will be understood and can be costed and considered.

SECTION TWO – Management and Inventory

10. Existing tree management and inventory

The county council has a clear duty of care under several Acts of Parliament (Occupiers Liability Acts 1957 & 1984 and the Health and Safety at Work etc. Act 1974) to ensure that trees on county council land are safe for the public, workers and visitors.

Therefore, to meet this duty and to support the delivery of this management plan all trees across the county council's estate will be subject to cyclical proactive safety inspections and be recorded within the corporate inventory and risk management system.

All new tree planting will be registered as assets within the inventory and all tree removals will be arranged and recorded within the inventory to allow for accurate reporting regarding numbers of trees removed and planted each year.

Details of the process is provided in the tree risk management procedure which is available from the following web address:-

Tree safety and tree related guidance - Lancashire County Council

From this web page are two other documents relating to tree safety, especially in conjunction with the highway.

The tree safety management guidance which as part of the highways management plan sets out the need for cyclical inspection of highways trees. The third-party tree guidance, details the roles and responsibilities for non-county council organisations planting trees in county council land and establishes the need as the highway authority for ensuring that trees planted under consent and trees adjoining the highway on private land do not pose a hazard to road users.

11. Maintenance request handling and policies

The county council receives many thousands of requests each year to prune or remove trees. This plan aims to provide clarity and a framework for the community, local businesses, and county councillors with regards to the type and extent of pruning which would be appropriate when requests are made.

Trees and woodlands can make a significant positive contribution to quality of life, the local economy, the environment and provide wildlife habitats; yet due to their eventual size, persistence in the landscape and seasonal debris can sometime cause nuisance or concern to neighbouring properties. Therefore, often a professional judgement is required to balance the negative impacts a tree could pose to neighbouring property against maintaining the health of the tree and the wider community impact the tree may provide in terms of landscape character betterment and eco systems services. British Standard recommendation 3998 (Recommendations for tree works – 2010) provides national guidance on how tree work should be carried out.

The following suite of maintenance policies provide details on how these requests will be considered by officers of the council:

11.1 Tree felling requests

As with all requests for tree maintenance the first thing the officer will do upon visiting the site is to carry out a visual safety inspection of the tree, looking for signs of pests, diseases or any structurally significant defects or decay. Occupation under the tree, distance of the tree to a target, size of the part of the tree most likely to fail and the likelihood of failure are all considered and measured during this inspection. Full details of how this is managed and recorded against the tree are provided in the Tree Risk Management Procedure.

Should there be no arboricultural justifications to remove the tree the request is unlikely to be supported as trees are a valuable community asset. If a decision has been made to remove a tree any immediately adjacent residents are contacted by post to advise them of upcoming felling works and the reasons behind the decision unless of course the tree is imminently dangerous and there is no time to carry out any pre-felling notification.

Under the Environment Act 2021, once implemented there is a duty under section 96A Highways Act 1980 for local highway authorities to consult with residents before felling street trees. However, most trees felled will be because of disease or on highway safety grounds. Felling under those circumstances is exempt from consultation.

Maintenance Policy 1 – Felling

If a tree is found to be dead, dying or to have any structurally significant defects, decay, or diseases then a felling request would be supported, and a works order placed with highways operations to remove the tree.

There may be some requests to fell a healthy tree which are supported as there may be extenuating circumstances which renders the trees' retention undesirable. These could be that the tree in an inappropriate species for the location (wrong tree in the wrong place) as there is insufficient space for the tree to fully establish without causing conflict or significant nuisance to adjacent structures or property.

11.2 Tree pruning types

Tree pruning can be categorised into three types, crown thinning (BS 3998 – clause 7.5), crown lifting (BS 3998 – clause 7.6), and crown reduction (BS 3998 – clause 7.7). Any supported pruning request would fall into the above three categories.

Crown thinning involves the removal of a specified percentage of the smaller secondary and tertiary branches to reduce the density of the canopy whilst maintaining the original height and shape. It is a time consuming and highly skilled operation. The percentage of density removed is often between 10-30% of the leaf area. Thinning of more than 30% is not recommended. Thinning requests are seldom supported as it is rarely a once-only operation. Often repeat pruning is necessary as the tree re-grows the lost leaf area; particularly on species that are predisposed to sprouting epicormic shoots.

Crown lifting involves the removal of the lower branches, or the tips of higher attached branches that may be dropping down causing an obstruction. This type of pruning is carried out to increase the clearance under the tree. It is often carried out on highway trees to prevent branches striking high sided vehicles and to allow clear pedestrian access under the tree. This type of pruning is specified in a way to achieve a stated clearance under the tree.

Crown reduction involves removing the ends of primary scaffold branches to reduce the height or spread of the canopy. It is specified either as a desired height of the tree after pruning or to achieve a given clearance from a structure which the tree is being reduced from. The extent to which a tree can successfully withstand reduction differs greatly from species to species and also depends heavily on the vigour of the tree.

A form of reduction frequently requested is pollarding (BS 3998 – clause 7.10) which involves a significant reduction in height to form a pollard head. Pollard regrowth requires careful management as if not repeated on a regular cycle the pollard regrowth can become liable to breaking out which impacts on the stability of the canopy.

Previously pollarded trees may require re-pollarding to remain in scale with the available space. Re-pollarding is a time consuming and expensive exercise. Therefore, this policy does not support pollarding trees which have not already been pollarded previously.

Another form of reduction is retrenchment pruning or veteranisation (BS 3998 – Annex C.2) as it is sometimes referred to. This is only every considered on extremely old trees or mature lased pollards, which due to their advanced age, are now at the stage where the canopy declines and major limbs are shed. Retrenchment / veteranisation involves removing a portion of the canopy to manage this natural structural decline in a safe and pre-planned way.

Pruning request types

The majority of pruning requests received can be loosely categorised into the following:

- Pruning to abate seasonal debris
- Pruning to abate tree cast shade
- Pruning to abate encroachment.
- Climbing shrub removal
- Root pruning
- Television reception
- Root trespass and property damage

11.3 Seasonal debris

Seasonal debris such as autumn leaf fall, aphid residue, bird droppings, seed and fruit dropping and petal shedding are all issues which are often cited as a reason in a pruning request submitted to the county council, as they can cause inconvenience to neighbours of county council trees which may be shedding debris into their property.

Maintenance Policy 2 - Season debris

Whilst crown thinning may abate these seasonal inconveniences this is likely to only have a moderate impact and would require repeating many times in future years as the tree grows back. Therefore, this is not considered an appropriate remedy for seasonal debris.

Removing an otherwise healthy tree could not be supported as this would be considered disproportionate to lose a healthy tree for a season inconvenience.

11.4 Tree Cast Shade and Obstructions

Tree cast shade is often cited as a reason in a pruning request submitted to the county council. With trees in urban areas, it is likely that most trees will cast shade over a resident's property at sometime during the day.

A pruning remedy may be to reduce the tree but unfortunately this then generates a future pollarding cycle to be maintained. Each pollard cycle costs in the region of \pounds 300-500 so there is a significant costly future maintenance regime should pollarding be considered.

Due to this heavy reduction is unlikely to be considered appropriate to abate tree cast shade. One of the county council's tree officers would assess the situation to ascertain if the level of cast shade could be considered to have a significant impact on a resident's reasonable use and enjoyment of their property and garden area. This assessment would consider the height of the tree, the distance to the property, in particular useable garden areas and principal windows in habitable rooms and the directional bearing to the property.

The need for heavily pruning trees can be reduced and phased out by selecting the correct species for the spatial confines of the planting site.

Maintenance Policy 3 - Tree Cast Shade and Obstructions

Pruning requests will always be supported where tree growth is obstructing access or obscuring sight lines, especially at road junctions as highway safety takes precedent over tree health or amenity issues. If it is considered that shade is having a material impact on the resident's reasonable use of their property or garden, then consideration would be given to pruning to alleviate the situation.

11.5 Tree Encroachment

Trees on county council land will often trespass over the airspace of neighbouring properties. Low and excessive encroachment is often one of the reasons behind a pruning request being submitted to the county council.

Reduction and / or crown lifting can often successfully resolve encroachment issues. However, the county council likely has tens of thousands of trees which encroach over neighbouring property. There is no legal requirement to remove encroaching branches, and there would be a significant budget required to prune all encroaching trees. Under common law, and provided that the trees are not under statutory protection neighbours are legally able to prune back any encroaching branches, if they have due regard for the long-term stability of the tree and offer the arisings back.

Maintenance Policy 4 - Tree Encroachment

The county council would always wish to discuss any encroachment issues with neighbours and if the encroachment is excessive and as with tree cast shade, is having a detrimental impact to a residents' reasonable enjoyment of their property or garden, then arrangements would be made to carry out the relevant works at no cost to the neighbour.

11.6 Climbing Shrub Removal

Climbing shrubs, in particular Ivy, are often the source of a pruning request; to remove the Ivy because of the belief that it is damaging the tree or that it is causing the tree to become denser and thus is casting more shade.

Arboricultural Practice Note 10 published by the Tree Advice Trust confirms that there has been no scientific research or quantitative investigation into the alleged detrimental impact of this shrub on trees. In end-of-life trees the weight of Ivy can render a tree more predisposed to windthrow because of greater winder resistance but this should not be an issue on a healthy tree. The additional habitat provided by this shrub has long been recognised.

Maintenance Policy 5 - Climbing shrubs

Requests made to remove Ivy would consider the health and condition of the tree and the proximity of the tree to neighbouring property and structures. Where it is considered that there is an added risk of windthrow, or deep excessive shade cast then works world be arranged to sever the Ivy at the base of the tree. This would result in the Ivy dying and very slowly falling out of the canopy of the tree over a long period of time.

11.6 Stump management

There are several options to manage tree stumps, they can be ground out, left at knee height, left to regrow as a coppice or killed with herbicide plugs drilled into the stump.

Maintenance Policy 6 - Stump management

The stump management decision is governed by the site conditions. In an informal area and with a species capable of coppicing, allowing a coppice stool to develop may be appropriate. Whereas a self-seeded tree growing in an inappropriate position may require killing off with herbicide plugs to prevent the tree from growing back.

Stump grinding is very destructive so may often not be appropriate due to underground services or nearby structures, in such areas retaining the stump at knee height to prevent a trip hazard may be the appropriate course of action.

11.7 **Television reception**

Requests to remove or prune trees due to interference with terrestrial or satellite television reception are common. Often it is unclear which tree or trees are responsible for the interference. If the property is adjacent to a woodland or copse of trees there could be many trees blocking line of sight for the signal.

The remedies of felling hitherto perfectly healthy trees or significantly reducing trees is considered to be a disproportionate response. Often there are non-tree interventions such as switching provider / moving to cable-based television or adjusting or moving the aerial of dish.

Maintenance Policy 7 - Television reception

Requests to prune or fell a tree or groups of trees to mitigate or prevent interference with terrestrial or satellite television reception cannot be supported or accommodated. It is likely that the provider will be able to suggest an alternative solution to the problem, for example relocating the aerial/dish or means to boost the signal.

11.8 Root trespass and property damage

Many enquiries are received each year regarding roots from county council trees which have entered adjacent properties. The allegations for damage can be categories into:

- Damage to driveways and paving
- Damage to garden walls or other lightly loaded structures
- Blockage of pipes and underground services
- Damage to building

With all enquires relating to tree root trespass and damage the initial response will be to assess the tree, this can either be in the form of an on-site inspection or referring to a recent survey if the tree has undergone its cyclical inspection within the last six months.

Root barriers to prevent root trespass and damage are an effective method of control for newly planted trees. However, with an established tree it is highly unlikely to be considered as the level of root severance to install the barrier would likely render the tree unstable and predisposed to a future windthrow event.

Root pruning again can be effective on young or newly planted trees but for a mature specimen is unlikely to be considered as a remedy as there is potential for increased windthrow risk and basal decay for anything greater than minor root pruning.

Felling a hitherto healthy tree due to limited movement or reflection of paving or other lightly loaded structures is considered to be significantly disproportionate. Should the damage be considered to be significant, and the tree be found to be either selfseeded or planted in a highly inappropriate position for the site and root characteristics of the species then the tree would be removed.

With regards to underground pipes and services, roots can enter and block pipes and drains however the drain or pipe must first be leaking for the roots to follow the moisture gradient and enter at the break, so root blockage is a symptom of a defect with the drain network and not the primary cause.

Regarding allegations or tree related subsidence or heave to a property, there could be multiple reasons why a property is moving from leaking drains to insufficient foundations. Therefore, with all such allegations the Officer is unable to make any comment without access to a structural and geotechnical report, usually commissioned on behalf of the property owner's insurers. This would provide crucial detail on the amount of clay within the subsoil and vitally the volume change potential of the clay content.

If after reference to such reports, it is clear that a tree or trees are causing movement in the property (in areas with highly shrinkable clay contents) then the tree would be removed as a priority.

Maintenance Policy 8 - Root trespass and property damage

Requests to remove or prune a tree due to movement or deflection in driveways, paving, garden walls or lightly loaded structures are unlikely to be supported, the customer is advised to contact their property insurer in the first instance so that they may discuss their concerns and agree an appropriate course of action.

Requests to remove or prune a tree due to blocked or leaking underground utilities are unlikely to be supported, the customer is advised to contact their utility company over the matter as it is likely that there is a leak or crack in the network which has allowed the roots to enter.

Requests to prune or remove a tree due to allegations of tree related subsidence or heave cannot be considered without access to a full structural and geotechnical survey report commissioned by the property owner's insurers.

12. New planting species selection

The native tree species are of more value than non-native tree species debate is long-standing. Native species only planting schemes are popular amongst the nature conservation community and are typically seen as being inherently "ecological" whereas planting schemes which include significant amounts of non-native species are sometimes not; unless of course considered in the context of their country of origin in which case they become "ecological".

It is considered that native species only planting would be unworkable and unwise as biodiversity is essential in adding resilience to the tree population across the county councils' estate. Anecdotally it has been noted that some of the most widely planted native species (birch and alder) appear to be struggling to cope with the high temperatures which have occurred during recent summers – and which are forecast to increase in frequency.

Therefore, whilst continuing to use native species in many planting schemes this plan makes no commitment to limit planting to just the comparatively few native tree species (30 main species with around an additional 30 sub-species) with the main consideration being species fitness for the surrounding environment (both built and natural). Native only planting would also exclude many hundreds of species of attractive trees which would thrive in our changing climate.

13. Design issues and guidance for new planting

Woodland creation / block planting

Since the mid-nineteenth century, the need for good quality accessible greenspace has been understood. Therefore, the design and placement of new woodland planting is of great importance to all residents of Lancashire in their everyday lives.

It is acknowledged that some new woodland or copse creation using whips (one- or two-year-old saplings) can appear mundane bordering on unattractive for the first decade or two after planting as the ambient daylight levels are too high to accommodate attractive vernal herbaceous forbs (spring flowering woodland wildflowers) and as such unattractive rank and tussocky vegetation becomes dominant as the trees have yet to achieve their attractive mature forms.

The open structure also catches wind-blown debris and litter. Often new plantings can be rather blocky and reminiscent of shrub mass planting which was popular at the end of the last century and is now almost universally considered to have been a poor design choice.

Such planting schemes are depauperate (lacking in biodiversity) for the first decade as they tend to only include a handful of native tree and shrub species with the field layer dominated by a few rank and tussocky species.

Often new tree planting schemes can be blocky with little or no accessible internal space. Therefore, with this planting style the public only interacts with the outer edge of the planting. This can often be a poor interaction (for the reasons stated above regarding litter and depauperate nature) so such a scheme could be considered mundane or incongruous in amenity and landscape character terms. So, design

consideration is needed to elicit a less passive more positive response to the planting.

Edge interaction is clearly a key element in the design of a scheme. Consideration should be given to stratifying the vegetation of the edge of any compartment to improve season interest by the use of shrubs, ground cover and vernal forbs.

Placemaking should be a consideration in the design of any new planting scheme. Placemaking being the process of ensuring that the scheme is authentic, distinctive and responds to and reinforces the locally distinctive patterns of the surrounding area. With placemaking in mind high quality, socially and often economically beneficial places can be established.

Place-keeping should also be a major consideration in the design of the scheme, place-keeping being the process of considering the future maintenance needs of the scheme during the design process to ensure that the site can be maintained to an acceptable standard with the (often limited) resources available.

Once the initial funding to plant out the site is used the quality and ease of maintenance has considerable impact on the overall success of a site or planting scheme. It is not always feasible or realistic to assume that long term responsive maintenance will necessarily happen or to the extent required, so the likelihood of this should be considered in the design or placement of the scheme.

It should also be considered with the placement of new woodland compartments that not all experiences to be had in wooded areas are necessarily positive for everyone. An overgrown dense woodland might be places of special value for play and exploration for children yet other members of the community may see them differently and view them as unsafe or a threat.

Stand-alone planting

Planting stand-alone trees mostly uses much larger nursery stock than woodland creation planting using whips, so standards and selected standards are used. This would generally be in a suburban or urban setting.

In placing these trees consideration should be given to the spatial confines of the site and the eventual size of the species selected. Site lines, fenestration and bearing should also be considered. Amenity contribution and seasonal interest should also be a major consideration in species selection.

There are many specialty species developed for urban planting which have compact canopies minimising potential future pruning needs and often have considerable seasonal interest so it is likely that these will make up the vast majority of the suburban planting. This clearly brings a risk of hackneyed and overplanted species being used and as such inauthentic planting being carried out, the most over planted suspects being Himalayan Birch, the 'Lutescens' cultivar of Whitebeam and the "Chanticleer" variety of Callery Pear. So, whilst these are an excellent choice for suburban planting, consideration should be given to more infrequently planted species including but not limited to:

• *Parrotia persica "Vanessa"* (Persian Ironwood Vanessa cultivar)

- *Liquidambar styraciflua "Worplesdon"* (Sweet Gum Worplesdon cultivar)
- *Tilia mongolica* (Mongolian Lime)
- *Tilia cordata "Winter Orange"* (Small Leaved Lime Winter Orange cultivar)
- *Ulmus Vada Wanoux* (Dutch Elm disease resistant Elm cultivar)
- Davidia involucrata (Pocket Handkerchief Tree)
- Acer rubrum "Red Sunset" (Red Maple Red Sunset cultivar)
- *Koelreuteria paniculate* (Golden Rain tree)

Japanese flowering cherries have been a popular species and have been extensively planted in the suburbs for their attractive spring displays. Unfortunately, this species is predisposed to aggressive surface rooting and causes uneven and lifted paving. Due to this, this species will no longer be selected for planting in hard surfaced areas.

In soft dig areas where surface rooting would not cause any safety or cosmetic issues then flowering cherry can be used. Extending season interest should be considered by including the cherries which are winter flowering such as *Prunus x* subhirtella Autumnalis Rosea.

Tree pit design

Trees planted in hard surfaced areas can make an impact in the reduction of surface water flooding and as such has a significant role to play in a sustainable urban drainage system (SUDS). Therefore, one of the performance criteria in assessing and adopting a tree pit design / engineered solution must be urban water management. Other performance criteria required in the tree pit design being:

- Stormwater capture
- Stormwater storage
- Silt / debris capture
- Root control / barrier
- Irrigation access

14. Review and performance monitoring

The progress of the plan will be reviewed on an annual basis, to be carried out at the end of the tree planting season each April. During this review the numbers of trees planted that year will be counted and compared against the number of tree removals. The number of completed woodland management plans will also be counted and reported at this time.

15. Trees planted under license

During the 1960s, 70s and 80s the county council was the catalyst and driver for large scale tree planting. The desire to plant trees was driven by the following objectives;

- Plant trees to support clean air objectives of the 1960s
- Plant trees to deliver land reclamation objectives removing industrial scars from the county
- Plant trees for public amenity, landscape and wildlife
- To develop a forestry estate big enough to support an in-house forestry team

To acquire sites for planting the authority used several approaches including land purchase, encouragement of landowners to take up tree planting grants and entering tree planting licences with mainly district councils (but also did include private ownership and utility companies).

Under such agreements the county council planted many thousands of trees in land not owned by the county council. Unfortunately, the exact number of such planting sites is not known with total accuracy due to the passage of time, staff, and organisational change; both within and outside the authority (local government boundary changes). An estimate of the number held is around 25. It is reasonable to say that as time has passed the county council's involvement in the sites has reduced year on year.

Whilst involvement in the sites has reduced over time, it is highly likely that responsibilities and ownership of the trees has not reduced. It is also true that many of the licensors (the landowners) may not be fully aware that the county council owns trees on their land.

There are clearly risk management, potential liability, and duty of care matters to be addressed and resolved. During the first twelve months of the asset management plan a working group will be established with staff from the tree management team, legal services, countryside service and estates to resolve this issue, the program of works being:

- To establish an accurate record of active tree licences
- Assess what we currently know about the relationship between lessor (landowner) and licensee.
- Assess the implications of each licence in terms of lessor, condition of woodlands, risks
- To assess lessor understanding and aspirations.
- Assess details within licence agreements as to terms and conditions, surrender and termination clauses.

With the information above the county council will be in a better position to fully understand the level of responsibility it has, determine a programme of works for appropriate actions and determine the level of resource that may be needed to implement a plan.

16. Tree Preservation

The making of tree preservation orders comes under the jurisdiction of the district councils in their role as local planning authorities and as such any requests made to the county council would be passed onto the appropriate district tree officer for consideration.

There are some county council trees which are subject to tree preservation orders. The majority being covered within old blanket (area classification) orders. Government has prepared guidance on the expediency and suitability of trees for proposed preservation orders and guides against placing preservation orders on trees which are on council land or are under a correct arboricultural management regime.

Therefore, as all county council trees are subject to the care and jurisdiction of the tree management team and are now considered to be fully managed assets, any new provisional tree preservation orders placed on county trees will not normally be supported on the grounds that such protection fails to meet the expediency tests and thresholds set by Government.

Government advises local planning authorities to keep their tree preservation under review and if need be, to revoke preservation orders which are no longer required, therefore where county council owned trees are protected the county council will request that the district council carry out a review of the existing protection and to remove the protected status of trees by revoking and remaking the preservation orders.

In failing to keep older tree preservation orders under review there is now the highly inefficient position in terms of time and resources of county council officers applying for formal consent to district councils for permission to carry out essential maintenance works to county council owned trees – often resulting in a time lag that could be hazardous.