

# West Suffolk Council Tree Management Policy

## Appendix 13: Threats to trees

Anyone who plants and cares for trees knows they do so not solely for their own enjoyment, but for the enjoyment and enrichment of the lives of those who come after them: trees can live to a considerable age (200 plus years). Trees however, rarely do fulfil that initial promise, particularly in the rapidly changing urban environment. Here tree life expectancy is greatly curtailed with most trees living only a few decades, and many lasting nothing like that long. Even those trees which, through good fortune or sound management, do become large and established specimens can be damaged permanently by a single thoughtless act unless duly cared for and defended. Factors which can adversely affect the longevity of trees are discussed below.

### Pests and disease

Pests and disease are a constant threat to trees and woodland cover. Nothing illustrates the point better than the loss of 20 million mature elms to the Dutch Elm Disease epidemic of the 1970s and 1980s (taking with it the home for countless other important but less conspicuous species). For centuries heavy, fulsome towering elms were key components in the hedgerows and copses of West Suffolk, as throughout the English lowlands. It is difficult today to appreciate the huge presence that elms once had or the scale and impact of their loss, except perhaps from old photographs or in helping to account for the 'gappyness' of so many hedgerows. The virulent form of the disease which emerged in the 1960s, however, has left behind a dramatically changed landscape.

The Elm population still exists albeit mainly as young suckers, found in hedgerows. Though these are not without benefit for wildlife, they are certainly an ongoing maintenance problem and, potentially, a risk management problem as well: where root systems have not been exhumed or killed off, suckers continue to grow, only to inevitably succumb to the disease, die and become unstable.

There are an increasing number of tree diseases prevalent in the United Kingdom. *Chalara fraxinea* is a relatively new threat and has potential to cause significant damage among the United Kingdom's ash population. It has caused widespread damage to ash populations in continental Europe, including estimated losses of between 60 and 90 per cent of Denmark's ash trees. Experience in other parts of Europe indicates that it can kill young ash trees very quickly (within one growing season of symptoms becoming visible) while older trees tend to resist it for some time until prolonged exposure, or another pest or pathogen attacking them in their weakened state, eventually causes them to succumb.

Decline and dieback of common Oak (conditions caused by interaction of specific insect damage, weather and disease) is causing the deterioration and occasional premature death of some of our most characteristic native trees. Some pines are suffering premature needle loss and occasional death as a result of Red Band

Needle Blight, caused by the fungus *Dothistroma septosporum*. Meanwhile there is plenty of anecdotal evidence of local increases in the number of beech trees succumbing to established fungal pathogens such as *Ustulina deusta* and *Meripilus giganteus* - a pattern that seems likely to persist in light of predicted dryer, warmer summers and milder winters. Horse chestnut trees nationwide are severely affected by the dramatic rise of cases of bleeding canker and leaf miner. It is rare now to see trees not affected by at least one of these problems, which very sadly makes 'conker trees' a far poorer choice for planting.

The future seems particularly uncertain. Climate change and global trade means that breaches of national bio-security could lead to the spread of alien pests and diseases, with a serious and possibly catastrophic impact on individual tree species and genera. Some indeed such as infestations of Oak Processionary Moth can be a serious issue for human health also. The discovery and spread of phytophthora species that are new to this country is similarly of great concern. Furthermore, as pests and diseases respond to climate change so will their impact on trees and woodlands: mammal damage, for instance, seems set to rise, as deer, squirrel and rabbit populations increase as hard winters become less frequent.

### **Development pressure**

The increasing pressure to find more development space in West Suffolk threatens the extent and condition of our tree and woodland cover. Central government guidance on housing densities means that there are reduced planting opportunities. Similarly, the sale and sub-division of large properties reduces the land available for planting.

A number of built up areas in West Suffolk are already characterised by high density housing, with small gardens and little public open space. The closeness of the houses to the street may leave few opportunities for street tree planting. The conversion of front gardens to hard standing and built developments in rear gardens, likewise, may have led to significant reduction in planting opportunities. Such loss of space also contributes to water run-off and has a negative impact on storm water capacity.

Vast increases in traffic have been particularly damaging, especially to street trees. Emission of noxious fumes, compaction of roots zones, caused by cars parking on verges - plus damage caused by impact, driveway construction and highway repairs and use of rock salt on our highway verges and footpaths each winter, have all contributed to the steady decline in the health of urban trees.

The drive to change often focuses on targets associated with homes and jobs and can forget the essential ingredients that make West Suffolk special for those already living and working in the area. Tree and woodland cover is one such essential ingredient.

Outside of specialist circles, there is general ignorance of just how sensitive tree roots systems can be to direct physical damage and changes in their environment, and therefore how easily trees can be irreparably damaged and lost to inconsiderate construction. Planning, management and operations all needs to be conscious of providing and safeguarding the natural environment.

Tree preservation orders (TPOs) can be used as part of the planning process to protect established trees on development land. While adequately enforced planning conditions can help to ensure that anyone planning, supervising or undertaking works near trees uses special building methods and protects trees with robust fencing as necessary.

To counter the threat to sustainable tree cover, planting opportunities should be taken wherever appropriate through the planning process. Many planning applications represent a planting opportunity and section 106 planning agreements can be used to secure money for tree planting and aftercare.

### **Trees in dispute**

People often live in close proximity to trees. These trees may be their own or their neighbours' or quite commonly, they belong to the council. Trees can cause inconvenience to residents when they grow near dwellings. A dilemma often occurs when a tree makes an important contribution to the local environment but also causes inconvenience to those living nearby.

Disputes with neighbours often occur because of the strong emotions attached to trees.

Some people are fiercely protective of trees, regardless of whether they own them or not. While others may feel equally heartfelt antipathy towards a particular tree and be determined to have it removed or substantially reduced in size.

Many disputes relate to tree size. For example, few people realise that Leyland cypress hedges, if left unchecked, can grow to 30 metres in height within 50 years.

Complaints about overhanging branches; loss of light; leaf, fruit and seed litter; birds fouling, honeydew deposits from aphids; potential damage to property; blocked drains; cracked surfaces; absence of TV reception; and so on are common with any tree population located amongst habitation. Such problems are often seasonal, lasting only a short time and usually a small inconvenience compared with the enormous benefits that trees provide. In some instances, these problems can be dealt with by careful pruning. Sometimes the problem, however, is a result of inappropriate species selection in the past and the tree, therefore, may require removal. On other occasions the problem may be difficult or impossible to resolve in all parties' favour. In the long-term, attention should be paid to wise species selection and planting, encouraging greater awareness and education, such as using leaf litter for home composting and growing shade-loving plants where a tree casts its shadow.

### **Climate change**

Climate change is likely to be particularly acute in the east of England, particularly in built-up areas because of the 'urban heat island' effect. Predicted climate change impacts for habitats in the east of England include:

- An overall rise in temperature of 2 to 4.5 degrees.
- A longer growing season, advancing spring flushing of trees by up to 30 days.
- A fall of up to 60 per cent in soil moisture levels in summer.
- An increase of up to 20 per cent in winter rainfall – with more frequent winter storms.
- A fall in humidity of up to 15 per cent and less cloud cover.

The magnitude and rate of predicted climate change means trees and woodland will be significantly affected. These changes will have a direct impact on the growth of trees and woodland in the region.

Key physiological differences exist between species, resulting in species-specific responses to changes in environmental conditions so growth rates may be enhanced or reduced. The reduction in summer moisture could prevent tree growth on very thin, free-draining soils and the increasing soil moisture deficit may limit species choice.

Some tree species displacement could occur in as little as 30 years as rising temperatures and drought-related stress affects growth and potentially, the fulfilment of winter chilling requirements. The Woodland Trust says that many important beech woods in the south may start to die out in the next 30 years as a result of extreme warm years and drier soils. Suffolk's Biodiversity Action Plan, similarly, comments that climate change may have a significant impact on the hydrology and biology of 'wet woodland'.

We can expect to see changes in the natural range of native wild plants and animals, which will alter the character of our woods. Some wildlife, particularly invasive, non-native species will need to be managed if they are not to have a detrimental effect on our woods.

Climate change appears to be already affecting the range of pests and diseases. Non-native invertebrate pests - such as Gypsy Moths or Asian Longhorn Beetles – may colonise the United Kingdom. Longer summer breeding seasons will probably result in more insect generations being produced each year. Over-wintering insect populations are likely to have reduced mortality rates. Population densities of mammalian pests, such as Grey Squirrels and Muntjac Deer are likely to increase due to milder winters and increased forage availability during spring. Warmer and wetter winters could also lead to more active root diseases.

Adaptation is an important issue and should be addressed at the earliest opportunity. This is particularly important, because of the long time-frame associated with any management decisions made in tree and wood management for example, by the 2080's an Oak tree planted now will be less than half-way through its anticipated life, whilst as a component of semi-natural woodland, it would still be at a juvenile stage. The difficulty is ensuring that decisions made now, particularly over planting material, are appropriate to both the current and future climate.

### **Over-anxiety about risk and liability**

Trees, particularly if left unchecked, may become hazardous and fall apart, damaging property or causing personal injury. Their roots can, on occasion, lift low walls and paths, creating trip hazards, or indirectly contribute to subsidence. The fear of litigation and insurance claims that accompanies these concerns and occurrences should not lead, however, to over-zealous felling or over-restriction on where new trees may be planted. Without certain trees, life, perhaps, would be a lot simpler, but it may also be far poorer. A reasonable balance, informed by expert judgment and, where appropriate, community opinion, needs to be struck between safety and manageability on the one hand and amenity and conservation on the other.