Appendix 1: Priority Levels and Response Timescales

Immediate Risk to Public Safety

Immediate risk of serious harm is a risk of such immediacy and consequence that urgent action is required.

In most cases, immediate risks are likely to be clearly observable in the course of informal or formal inspection and must be dealt with immediately.

Such intervention may be in the form of tree work, eg felling, or through site management. For example, where a large tree is found with an obviously lifting root plate or actively separating heavy branch within falling distance of a busy road, this may involve stopping or diverting traffic or felling, crown weight reduction or branch removal.

Most immediate risks have a reasonable likelihood of being identified by nonspecialists and specialists.

Non-immediate Risks Posed by Trees to Public Safety

Risk of serious harm in the near future is non-immediate and can be reasonably managed at an acceptable level by a planned, cost-effective response.

Action will be needed when inspections identify trees posing risks in the near future. Once identified, the response may involve prioritised treatment of the tree or site to manage the risk within the near future at an acceptable level, or further specialist assessment to clarify the extent of risk and treatment.

Risks not Requiring a Response in the Near Future

Where trees are identified as not posing a risk in the near future, there is no specific requirement for additional management. Existing informal and/or formal inspection procedures should be sufficient.

However, during a formal inspection, management requirements in line with best silvicultural practice (such as thinning out, crown lifting or crown balancing), or nuisance abatement (such as blocking of street lights and visibility splays), can be programmed in as and when resources allow, and at an appropriate priority level.

Response Timescales

Response timescales will be based on the following priority ratings:

	Category	Description	Target Timescale
Immediate risk to public safety	Emergency	Response to trees that are perceived as posing an immediate risk to public safety	24 hours
Non-immediate risks posed by trees to public safety	Urgent	Response to trees that are perceived as dangerous but not immediately so. Includes urgent work to be carried out at the earliest opportunity.	2 weeks
	Planned Red	Works on hazardous trees identified through routine inspection	Within 12 weeks of inspection
	Planned Amber	Works on trees identified through routine inspection to reduce long term hazards	Within 12 months of inspection
Risks not requiring a response in the near future	Planned Yellow	Work to abate or remove actual or potential nuisance caused by council trees if justified.	Within 12 months of inspection
	Planned Green	Work in line with best silvicultural practice and 'Good neighbour' issues such as reducing encroachment over properties, where justified and resources are available	Within 12 months of inspection

Appendix 2: Inspection Methodology

Survey Technique

A walkover technique will be used during the councils' formal regular tree inspection regime. Areas for inspection will be identified using maps and lists generated by the Arbortrak system within locations specified by the cyclical inspection areas.

Where practicable, drive by inspections will also be utilised within a given inspection area in conjunction with walkover inspections, as the inspector moves through a given area.

Whilst inspecting an area of trees, inspectors will apply the zoning approach, whereby trees in a low risk zone will receive the lowest detail of inspection looking for obvious faults and problems.

Where trees are within higher risk zones, or where potential faults and problems may not be readily observable, more detailed inspection will be applied through ground based visual inspection.

Inspections should look to identify features that indicate serious, significant decline in tree health, or structural weakness.

Features that can indicate **imminent** structural failure are few and far between and include the following:

- Actively lifting root plate
- Heavy limb actively splitting or breaking away from the tree
- Stem fractured, moving and opening enough to 'pinch'

Features that may indicate **possible** structural failure include:

- Cracks and splits in main stem or heavy branches
- Decay across large cross-sectional area of trunk or large branch
- Broken or hanging heavy branches
- Weak forks with bark trapped between heavy stems
- Dead trees
- Disease
- Decline in health eg. small or discoloured leaves, die-back of branches
- Damage from construction and development
- Fungal fruiting bodies
- Significant amounts or sizes of deadwood

It is inappropriate to react to tree defects as though they are all imminently hazardous. Growth deformities and other defects do not necessarily indicate structural weakness. When noting features that might indicate **possible** weakness or collapse as detailed above, it is important that concern for risk of failure is restricted to events likely in the near future. Some features persist for many years in a vast number of standing trees:

- Tight forks with bark trapped between the two stems with incipient cracks and splits; while this can indicate a structural weakness, a high proportion of such trees remain intact throughout their lives.
- Old wounds with decay and trunk hollowing may indicate impaired strength; trees often accommodate these with continued growth.
- Decay across a large cross-sectional area, resulting in the circumference of the trunk or large branch being breached, may warrant investigation; often such circumstances are manageable and do not require urgent treatment.
- Heavy broken branches and dead trees; dead trees may in some cases be cost effectively reduced and retained as a habitat feature, even where close to high use areas. Treatment of broken branches should be prioritised according the level of risk.
- Dead wood and fungal fruiting bodies; inspectors automatically interpreting these features as hazards tend to be overreacting. As with other external signs of possible structural weakness, these features are often diagnosed as more risky than they actually are. Both need to be competently assessed, in order to avoid unnecessary and costly intervention.

Management Requirements

As a result of an inspection, it may be necessary to undertake some form of management if a defect or hazard has been identified. Such management is known as pro-active management.

In general, choosing which measures to use to keep the level of risk as low as reasonably practicable while conserving the tree, involves weighing up the costs and benefits involved.

In some circumstances it may be possible to manage the risk posed by a tree by managing the area within which it is a hazard, or manage access to that area. This could be in the form of discouraging access by leaving grass to grow longer, diverting paths, relocating facilities such as play equipment or benches, using mown paths in long grass areas to direct access, using planting, dead hedging or logs to prevent access, change of use of the area or signs.

When all the options for managing the area within falling distance of the tree have been explored or where public exclusion from the area is neither desirable nor practical, remedial tree work will be necessary. Such work can include felling, pollarding, crown thinning, crown reduction, crown lifting, dead wooding and de-suckering/removing epicormic growth. In such circumstances the following principles will be applied:

 Undertake the minimum work necessary to reduce risk to an acceptable level.

- Where biodiversity and habitat have high value, a range of treatment options may be appropriate to retain maximum habitat balanced with the need for adequate safety.
- With high value trees, felling will be a last resort after taking into consideration all other options.
- When felling is specified, upright dead trees will be retained for habitat value as 'monoliths' where possible. Felled trees and trunks will also be left on the ground to provide important deadwood habitat where possible.

In some circumstances it may be necessary to commission a detailed inspection of a tree as a result of possible defects or hazards identified during a formal regular inspection, or in the case of a potential defect which in the inspectors view is outside of their competency to fully assess.

It may also be appropriate to instigate additional or more regular inspections of a given tree as a result of a formal regular inspection, to monitor a tree's condition more closely, such as where a potential defect is found but is not imminently dangerous.

Detailed inspections, or additional more regular inspections, as detailed above, may also be required where a tree of high amenity, historical or biodiversity value is to be retained where there may be potential defects or hazards.

Where trees are identified as not posing a risk in the near future, there is no specific requirement for additional management. Existing informal and/or formal inspection procedures should be sufficient.

Recording of Survey Results

A record of areas surveyed will be kept by the councils using the Arbortrack GIS system. This will record the following information:

Date of survey Surveyor Species Condition Size Management requirements

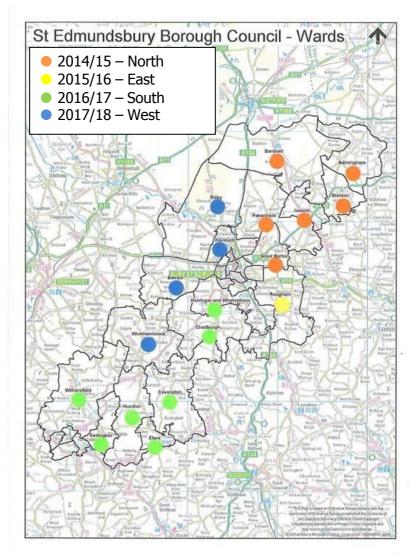
Appendix 3: Cyclical Inspection Areas

West Suffolk has been divided into areas to aid a four year inspection cycle. The areas have been assigned according to the tree stock within them to produce areas which require broadly the same resource to inspect and manage.

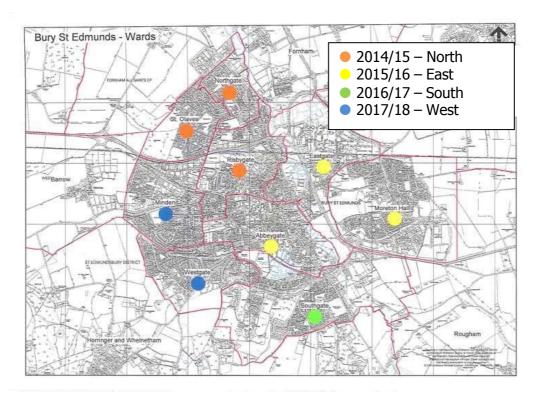
The majority of the tree stock is centred around the towns of Brandon, Mildenhall, Newmarket, Bury St Edmunds and Haverhill. While the rural areas have slightly fewer council owned trees, they are more sparsely spread out over a wider geographical area which will require greater travel time to visit the areas.

The Arbortrak system used by the councils to record its tree stock is based on Parish and Ward boundaries which provide a useful mechanism to break the inspections down by. When an area is due for inspection, the inspector can generate complete spreadsheets for each area including location maps.

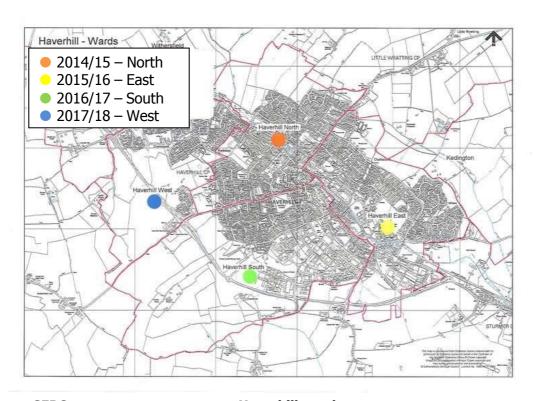
SEBC Inspection Areas



SEBC tree management areas: rural wards

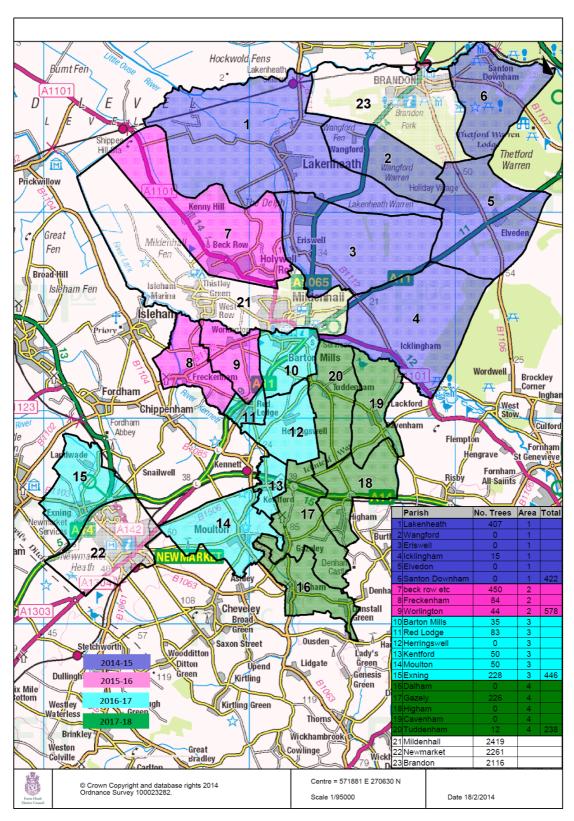


SEBC tree management areas: Bury St Edmunds wards

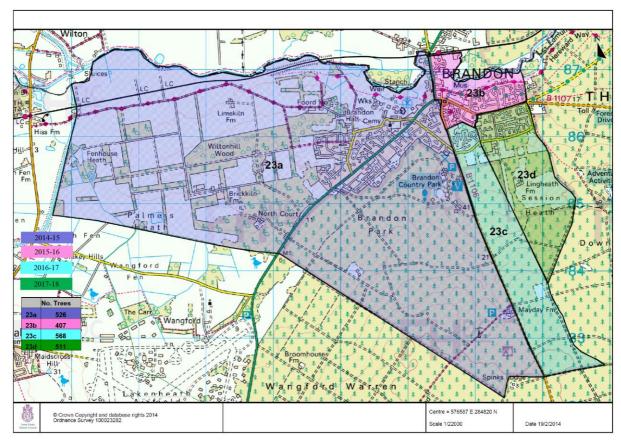


SEBC tree management areas: Haverhill wards

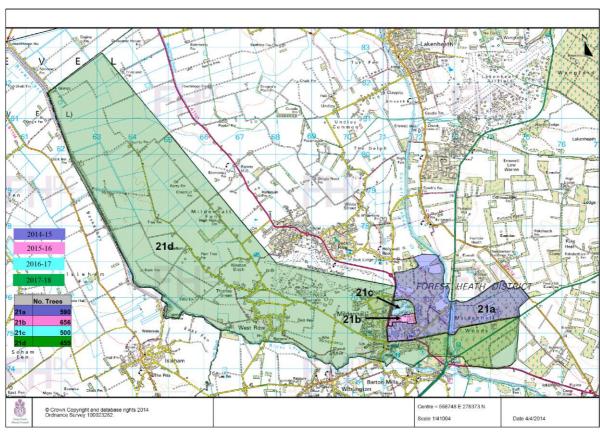
FHDC Inspection Areas



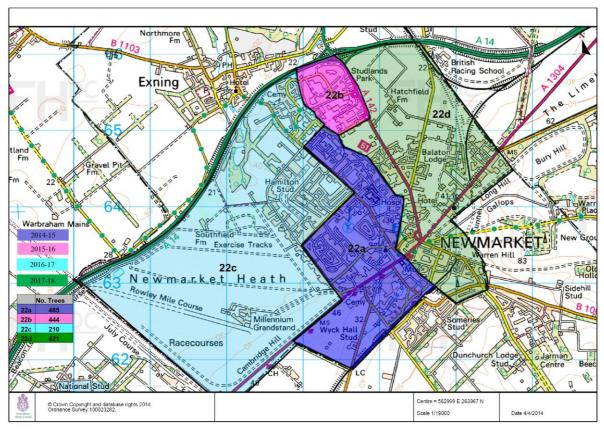
FHDC tree management areas: rural areas



FHDC tree management areas: Brandon



FHDC tree management areas: Mildenhall



FHDC tree management areas: Newmarket

Appendix 4: Current Tree Stock SEBC

Trees under the management of St Edmundsbury Borough Council can be categorised into the following seven areas:

- trees in parks and open spaces
- trees in residential areas
- woodlands and tree belts
- village and rural trees
- trees in cemeteries and churchyards
- car park and estates trees
- veteran trees

Trees in parks and open spaces

The council owns 335 hectares of parks and open spaces. These include: 46 formal parks and recreation grounds; country parks at Nowton (Bury St Edmunds), East Town (Haverhill) and West Stow. There are a number of new parks/open spaces in new developments on the western side of Haverhill and the outskirts of Moreton Hall awaiting adoption. Adoption of these areas will include the management of the trees which stand within them.

There are an estimated 8,000 individual open growing trees and approximately 225,000 woodland trees in council parks and open spaces. The nature of the tree populations at the different parks and open spaces is as variable as is the character of the sites themselves.

Of greatest interest in tree terms are:

- Nowton Park with its 23 hectares of majestic Victorian tree belts, the avenue of some 98 magnificent lime trees, and a developing arboretum containing many unusual species
- Hardwick Heath with its two hundred and fifty year old cedars and other fine, mature specimen trees
- Abbey Gardens with its historically well maintained collection of some 250 individual trees, including several unusual and particularly interesting specimens. These include the Turkish Hazel (Corylus colurna), Fern Leaved Beech (Fagus sylvatica Heterophylla), False Acacia (Robinia pseudoacacia) and Weymouth Pine (Pinus strobus) all planted in the 1830s and a rare native female black poplar which is even older.
- East Town Park, which, again, has large, mature tree cover, including another fine Lime and Horse Chestnut avenue.

Within the borough there are a number of newer parks and open spaces, which vary considerably in size. Within some of these sites there is scope for additional tree planting.

For the tree population of our parks and open spaces two important factors emerge:

- they are often the most significant trees in an area with many sites containing landmark trees or old and unusual specimens that may also be of exceptional wildlife value.
- the trees are fundamental to each park's structure having a profound effect on their appearance and, consequently, their users' leisure experience.

Trees in residential areas

Individual trees have been planted as part of the designed landscapes of St Edmundsbury's residential areas for many decades.

In June 2002 the council's housing stock and the soft landscaped areas on housing estates transferred to Havebury Housing Partnership. Under the terms of the transfer agreement Havebury Housing became responsible for the management of approximately 1200 trees.

The council, however, still has management responsibilities for those trees which are located on many communal pieces of council owned land. It is estimated that there are approximately 3,000 individual trees in such locations.

Woods and tree belts

Local, well-managed woodland provides many benefits that improve the quality of life for the borough's residents and visitors.

Eight hundred years ago a much greater proportion of the land which today we call St Edmundsbury was covered in woodland. This was an important resource as it provided materials for everyday life, including fuel and timber for buildings. Today, 10% of land within St Edmundsbury is covered by woods. One third of this is coniferous; two thirds is broadleaved.

Although a considerable proportion (23%) of woodland cover within St Edmundsbury is ancient semi-natural woodland most of the woodland, under the council's management, is more recently planted, ranging from 18th and 19th century to modern tree belts. Some grew up spontaneously as past land uses were abandoned.

St Edmundsbury Borough Council is responsible for the management of 134 hectares (74 sites) of mainly broad-leaved woodland and tree belt (79 sites), which amounts to 4% of the council's land. The following table provides an inventory of council-managed woodland. In the list, tree belt is defined as a wooded area of less than 15m depth (and, therefore, unlikely to be eligible for funding under the Forestry Commission's England Woodland Grant Scheme); wood is any woodland site of greater than 15m depth.

Management Quarter	Ward	Site	Management Type	Area (ha)
East	Abbeygate	Cullum Road and Grindle Gardens	Tree belt	0.19
East	Abbeygate	Saxongate Local Nature Reserve (LNR)	Wood	1.56
East	Abbeygate	Tannery Drive	Tree belt	0.10
East	Eastgate	Bury Football Ground	Tree belt	0.64
East	Eastgate	Compeigne Way Open Space	Tree belt	0.21
East	Eastgate	Ram Meadow Car Park	Tree belt	0.03
East	Eastgate	The Crankles	Wood	0.98
East	Eastgate	Unicorn Place	Tree belt	0.21
East	Haverhill East	Chalkstone Way	Tree belt	0.48
East	Haverhill East	East Town Park	Wood	3.14
East	Haverhill East	Osprey Road	Tree belt	0.09
East	Haverhill East	Railway Walk (large area of scrub) (LNR)	Wood	5.20
East	Haverhill East	Railway Walk - Manor Road to Reeds Lane (LNR)	Tree belt	0.83
East	Haverhill East	Shetland Way	Wood	0.70
East	Haverhill East	Sturmer Road	Wood	0.25
East	Haverhill East	Sturmer Road	Wood	2.85
East	Haverhill East	Wratting Road	Tree belt	0.28
East	Moreton Hall	Appledown Road	Wood	4.04
East	Moreton Hall	Barton Road / Orterwell Road junction	Wood	0.30
East	Moreton Hall	Bederic Close (Rear)	Wood	0.52
East	Moreton Hall	Bedingfield Way	Wood	2.07
East	Moreton Hall	Beech Plantation	Tree belt	0.08
East	Moreton Hall	Bluebell Avenue	Wood	1.75
East	Moreton Hall	Carmichael's Clump (LNR)	Wood	0.12
East	Moreton Hall	Home Covert (LNR)	Wood	1.06
East	Moreton Hall	Layhill Covert (LNR)	Wood	1.00
East	Moreton Hall	Mount Road	Wood	1.15
East	Moreton Hall	Mount Road - Oak Plantation	Wood	0.45
East	Moreton Hall	Mount Road Plantation (LNR)	Wood	1.47
East	Moreton Hall	Natterers Wood (LNR)	Wood	6.56
East	Moreton Hall	Orttewell Road	Tree belt	1.57
East	Moreton Hall	Pipestrelle Wood (LNR)	Wood	0.53
East	Moreton Hall	Pond Covert (LNR)	Wood	1.12
East	Moreton Hall	Moreton Hall industrial estate	Wood	4.05
East	Moreton Hall	Skyliner Way	Wood	0.73
East	Moreton Hall	Symonds Road	Tree belt	1.79
East	Moreton Hall	Symonds Road	Wood	1.26
East	Moreton Hall	The Clump (LNR)	Wood	0.14

North	Gt. Barton	Conyers Way	Wood	0.26
North	Gt. Barton	Diomed Drive	Wood	1.28
North	Gt. Barton	Downing Drive	Wood	0.43
North	Haverhill North	Railway Walk - Wratting Road to Howe Road (LNR)	Tree belt	0.33
North	Ixworth	Kettleborrow Close	Tree belt	0.16
North	Ixworth	Thistledown Drive	Tree belt	0.43
North	Risbygate	Bullrush Crescent	Wood	5.89
North	Risbygate	Parkway	Tree belt	0.21
North	Risbygate	Raynham Road	Tree belt	0.07
North	St Olaves	Oakes Road	Wood	2.23
North	Stanton	Parkside	Wood	0.37
South	Clare	March Place	Wood	0.29
South	Clare	The Granary	Tree belt	0.06
South	Haverhill South	Cleves Road	Wood	0.77
South	Haverhill South	Puddlebrooke	Wood	1.31
South	Haverhill South	Railway Walk - Bumpstead Road (LNR)	Tree belt	0.79
South	Horringer and Whelnetham	Nowton Park	Wood	27.83
South	Keddington	Risbridge Drive	Wood	1.41
South	Southgate	Grange Walk	Wood	0.49
South	Southgate	Hardwick Heath	Wood	6.21
South	Southgate	Josh's Wood, Hardwick Lane	Tree belt	0.11
South	Southgate	Mayfield Road	Wood	1.24
South	Southgate	Watson Close	Wood	0.23
West	Fornham	Culford Road	Wood	0.55
Nest	Fornham	Cumberland Avenue	Wood	1.49
West	Fornham	Larks Gate	Tree belt	0.08
West	Fornham	Northern Way	Wood	2.40
West	Haverhill West	A604	Wood	0.76
West	Haverhill West	Bergamot Road	Wood	1.92
West	Haverhill West	Chimswell Way	Wood	2.07
West	Haverhill West	Hanchett End	Wood	0.09
West	Haverhill West	Hopton Rise	Wood	0.37
West	Haverhill West	Horsham Close	Wood	0.08
West	Haverhill West	Spindle Road	Wood	0.63
West	Haverhill West	Strawberry Fields	Wood	1.05
West	Minden	Maltward Avenue	Wood	1.05
West	Risby	West Stow Park	Wood	16.86
West	Westgate	Horringer Road	Tree belt	0.28
West	Westgate	Lindisfarne Road / Bristol Road	Wood	0.30
West	Westgate	Westgate Tree Belt	Wood	1.90
West	Westgate	Winthrope Road / River Linnet	Tree belt	0.39
			Total	134.12

The majority of tree belts are located adjacent to the arterial roads which run through the recent developments in Moreton Hall and Haverhill. These linear woodland strips (Tree belts) were planted up in the 1980s and 1990s. They are now maturing and provide a very valuable resource in terms of visual amenity and, increasingly, as a habitat for wildlife.

The woodland areas of the country parks are being managed primarily for nature conservation, with education, recreation and landscape as other objectives.

The techniques used to manage the woodlands will vary between sites but might well include:

- Thinning thinning out young trees to allow the best specimens to flourish. Unless some of these areas are thinned-out during the next few years, they will not be able to develop into mature woodland areas that are capable of supporting a variety of flora and fauna.
- Coppicing coppicing is the art of cutting of trees and shrubs to ground level allowing vigorous re-growth and a sustainable supply of timber for future generations. Many species respond well to coppicing, including willow, sweet chestnut, and hazel.
- Improvements to access for quiet recreation, where appropriate.
- Measures to tackle misuse of sites. The council will vigorously address vandalism, fly tipping and encroachment in woodlands and tree belts and develop a standard approach for cases where any damage can be traced to specific individuals.
- Control of invasive species
- Control of weeds around newly planted or regenerating trees.
- Appropriate management of standing and fallen deadwood Deadwood is essential to the ecology of woodland. It provides food and a home for numerous fungi, insects, birds, mammals, amphibians and other creatures.
- Group selection small scale management of this kind selective felling of mature trees to allow young ones to grow - is vital to helping maintain the delicate balance between woodland and sunny glade, which encourages the richest variety of wildlife.
- New enrichment planting and the encouragement and protection of suitable natural regeneration to ensure continuous tree cover the council will plant more trees where appropriate and will ensure that adequate aftercare maintenance regimes are put in place.

The council will seek opportunities to expand the total area of woodland in appropriate locations.

The council will realise any economic potential of woodlands and tree belts through the marketing of timber and other woodland products where this does not conflict with nature conservation and biodiversity objectives.

Village and rural trees

The rural landscape of St Edmundsbury is characterised by a rich and diverse tree population

from landscape parks with mature exotic trees to ancient woodlands and hedgerows studded with old oak pollards. The villages have unique character, much of which is achieved by the historic tree planting within them and beyond in the surrounding countryside.

Many of the trees in the villages and rural areas are privately owned. The council, nonetheless, does own and have responsibility for a significant number of trees which form a defining part of the landscape in those communities. It owns approximately 3000 open- growing trees in areas outside Bury St Edmunds and Haverhill.

It is important that the distinctive village scenes are maintained and where possible enhanced. New and replacement tree planting should make use of species – usually suitable native species - which will perpetuate this distinctiveness.

All village and rural trees under direct council control will be incorporated into the ongoing four-year management cycle.

Trees in cemeteries and churchyards

Trees in churchyards and cemeteries are an essential part of creating the tranquil and reflective environment expected of such sites. Yew trees have traditionally been planted in and around burial sites as icons of everlasting life. The yew trees were usually planted in a deliberate manner: one beside the path leading from the funeral gateway of the churchyard to the main door of the church, and an other beside the path leading to the lesser doorway. In early times, the priest and clerks would gather under the first yew to await the corpse- bearers.

The council is responsible for 2 cemeteries (12.3 hectares) and 13 closed churchyards (5.2 hectares).

Cemeteries

Both cemeteries contain some fine mature trees, a high percentage of which are evergreen. Many of these trees date from the Victorian era and the early part of the 20th century. Then from around the time of the Second World War until the 1980s there was a noticeable lack of replanting, before a spate of ad hoc planting in the last 20 years.

Cemeteries trees will, like all council-maintained trees, be managed under the council's continuous four-year management cycle. As part of the implementation of this routine system of management in cemeteries, the council will seek to protect historical cemetery structures from damage being caused directly by the action of trees.

Replacement tree planting will be carried out with particular emphasis on retaining the historical nature of the sites and incorporating rare and unusual species where appropriate.

Churchyards

St Edmundsbury Borough Council is responsible for managing trees in the following ten closed churchyards:

	Location	Size of grounds
Church Name		(Hectares)
The Great Church Yard	Bury St Edmunds	2.3
The Mayors Cemetery	Bury St Edmunds	0.01
St John's	Stoke by Clare	0.46
St Petronillias	Whepstead	0.46
St. Nicholas	Denston	0.24
All Saints	Chedburgh	0.25
St. Peter's	Ousden	0.34
St. Andrews	Barningham	0.25
St Mary's	Haverhill	0.32
St Mary's the Virgin	Cavendish	0.38
St Mary's	Lidgate	0.34
All Saints	Rede	0.24
All Saints	Hopton	0.19
Total Area		5.2

Churchyard trees will continue to be managed on a proactive, cyclical basis with continuing emphasis on creating a diverse population of appropriate unusual, attractive trees. The churchyards are currently dominated by trees that are of a similar maturity, and little new planting has taken place for many years.

Car parks and estates trees

St Edmundsbury Borough Council is responsible for managing trees in the following car parks:

Car Park	No of trees
Robert Boby Way (Bury St Edmunds)	28
St Andrews Street North (Bury St Edmunds)	46
Ram Meadow (Bury St Edmunds)	22
Parkway (Bury St Edmunds)	63
Cattle Market (Bury St Edmunds)	27
Vinery Road (Bury St Edmunds)	8
Town Hall (Haverhill)	38
Ehringhausen Way (Haverhill)	33
Lower Downs (Haverhill)	7
Leisure Centre (Haverhill)	21
	293

Management of these trees is incorporated within the council's proactive management and inspection cycles.

Council-owned leased land – Individual lease agreements contain details of responsibility for trees within leased areas of land.

Veteran trees

Natural England defines veteran trees as those:

- That have interest biologically, aesthetically or culturally because of their age.
- Are in the ancient stage of their life.
- That are old relative to others of the same species.

Veteran trees are recognised on the basis of a combination of their size and the presence of certain characteristic attributes, such as rot holes, rot sites, dead wood and hollowing.

St Edmundsbury's veteran trees can be found in a number of locations; there are, for instance, old gnarled former parkland oaks within the adopted highway at Home Farm Lane (Bury St Edmunds), an ancient field maple and oak in residential open space at Downing Drive (Great Barton) and decaying willow pollards along various riverbanks.

Historically these trees are likely to have been vital assets, valued by our ancestors as an important part of their everyday subsistence and economy. Many, if not most, were working trees, providing construction materials, food or firewood. William Cobbett on the road to Bury St Edmunds, in 1825, for instance, writes in Rural Rides:

"Almost every bank of every field is studded with pollards, that is to say, trees that have been beheaded, at from six to twelve feet from the ground. Then send out shoots from the head, which are lopped off once in ten or a dozen years for fuel, or other purposes... I have scarcely seen a single farm of a hundred acres

without pollards sufficient to find the farm-house sufficient in fuel, without any assistance from coals, for several years."

In today's more urban society, few of these old trees have been retained; some may be known for their historical connections, but the majority that remain have become forgotten and neglected. Long-lived oak pollards, however, remain a defining, if dwindling, feature of the St Edmundsbury landscape which council tree management shall seek to perpetuate.

For all their interest and importance, veteran trees often - by virtue of their age and size - represent a relatively high degree of risk and are potentially very fragile, being especially vulnerable to changes in their growing space. It is therefore important that veteran trees and their environment are managed with expertise and sensitivity.

When managing veteran trees it is essential to consider not just the tree but all other organisms that live on or are associated with them. Many of these species are an integral part of the veteran tree's ecosystem and a number are protected in their own right under the Wildlife and Countryside Act 1981 or listed in the Red Data Books or in the UK Biodiversity Action Plan because they are considered vulnerable or threatened. This means expert consultation is vital to find out which species are present and to target management activities appropriately.

To provide the veteran trees of 2509, groups of trees and individual specimens that have the potential to achieve veteran status will be planted or identified to establish or encourage a suitable long-term management strategy. The council identify opportunities, for instance, to establish new pollards by pollarding young trees of suitable species, size and location.

Appendix 5: Current Tree Stock FHDC

Arbortrak Records

A total of 8480 trees are recorded on the Arbortrak system on land owned by the council. The majority of these trees are in public open spaces and are individuals or groups. Few are within woodlands as such.

This figure is likely to be higher due to trees as yet not identified on the system, and in conjunction with new planting projects, public open space creation and adoptions, this figure is likely to increase over time.

A clear concentration of these trees can be seen around the main towns of the district, and figures by Parish are as follow:

Parish	Tree records
Mildenhall	2419
Newmarket	2261
Brandon	2116
Beck row etc	450
Lakenheath	407
Exning	228
Gazely	226
Freckenham	84
Red Lodge	83
Kentford	50
Moulton	50
Worlington	44
Barton Mills	35
Icklingham	15
Tuddenham	12
Santon Downham	0
Wangford	0
Elvedon	0
Eriswell	0
Cavenham	0
Herringswell	0
Higham	0
Dalham	0

Other Trees

A number of other sites contain significant amounts of trees within the district that the council has a duty of care or a maintenance requirement for. These trees are generally not included on the Arbortrak record and should be highlighted and included in any formal regular inspection routine and are detailed below:

Aspal Close Local Nature Reserve

While this site is in fact owned by the council and managed as a local nature reserve, not all trees on the site are recorded on the Arbortrak system. Due to the extensive woodland on the site it is not practical to record and pinpoint each tree.

However, over 200 records are kept on the Arbortrak system which comprises the Ancient Veteran Oak population of the site. This population is nationally important and has an extremely high biodiversity value and a separate management plan is maintained for the site including detailed requirements for the Veteran Trees.

The extensive areas of woodland on the site benefit from regular informal inspection, with active local volunteers and volunteer wardens, and regular site work and visits by staff.

In addition to the informal inspections, a walkover survey of this site will be carried out during the formal routine inspections for the area the site falls within and appropriate records kept. The site is within Area 4.

All trees on this site are covered by a group Tree Preservation Order, and the site is subject to County Wildlife Status and Local Nature Reserve Status with a number of protected species present.

Barton Mills Local Nature Reserve

This site is owned by the Forestry Commission but the council has a management agreement to manage it as a Local Nature Reserve. As the trees do not belong to the council they are not recorded on Arbortrak.

The site contains a large number of trees, primarily Willows and Poplars. Some of the Poplars are exceptionally large. Access to the site is along a right of way which follows the river bank, and a small area around a fishing pond.

The majority of trees on the site are well away from accessible areas and the primary management principle for the trees is non intervention, whereby natural tree fall as a result of storm events and natural tree decline provide valuable habitat and ecosystem functions.

As with Aspal Close Local Nature Reserve, the site benefits from regular informal inspection, with active local volunteers in the form of the Lark Angling Preservation Society who actively use the area and make regularly reports of

problems, as well as members of the public who walk the route regularly and are familiar with the area.

Areas of accessibility will be inspected as part of the council's formal routine tree inspections and appropriate records kept. This will focus on trees adjacent to the footpath and pond area, and any trees which may pose a hazard to these areas. The site is within Area 4.

Due to the size and condition of some of these trees adjacent to the footpath, and the ground condition, additional walkover surveys will be carried out after severe storm events.

Old Town Tip County Wildlife Site

This site is a small area of land owned by the Council and is predominately mixed scrub and Breckland grassland. It has a number of trees on the site, but they are limited in number and size.

The site is designated Open Access land under the Countryside and Rights of Way Act 2000, but is little used and out of the way, and has no through route for pedestrian or any form of vehicle. The majority of users are plane spotters as the site is adjacent to the runway of RAF Mildenhall.

This area is also not included on the Arbortrak system. However, during the next formal inspection of the area, records will be transferred onto Arbortrak. The majority of larger trees on the site are not easily accessible, and overall the site poses a relatively low risk from tree related hazards.

The primary management aim of the site is to maintain the open grassland and prevent further scrub encroachment, and current levels of trees would be maintained or reduced.

Areas of accessibility will be inspected as part of the council's formal routine tree inspections and appropriate records kept. The site is within Area 2.

Mildenhall Woods Project

The area known as the Mildenhall Woods Project Area is owned by the Forestry Commission and is part of its Open Access Multi Use Woodland. The Council leases two 1 hectare blocks within this area within which it has installed a BMX track and an adventure play area with associated picnic area.

Part of the scheme includes way marked trails between these two sites and around the wider area, utilising existing rides and tracks within the woods.

The area has relatively high visitor numbers and the sites remain popular as a destination. The BMX track and the adventure play area is included in the councils regular play area inspections.

While the Forestry Commission retain responsibility for the trees in the area, which is designated Open Access land under the Countryside and Rights of Way Act 2000, the council has a duty of care for people using the play area and BMX

track. As such these two sites will be inspected as part of the council's formal routine tree inspections and appropriate records kept. The site is within Area 2.

Land Adjacent to Newmarket College

This area has a number of trees within it and has public access. This area is not recorded on the Arbortrak system. However, during the next formal inspection of the area, records will be transferred onto Arbortrak.

Areas of accessibility will be inspected as part of the council's formal routine tree inspections and appropriate records kept.

George Lambton Recreation Ground

This area has a number of trees within it and has public access. The site is leased by the Council. As such Arbortrak records are not kept for the trees within the site.

Areas of accessibility will be inspected as part of the council's formal routine tree inspections and appropriate records kept.

Council Operated Play Areas

Any trees within Council operated play areas are included on the Arbotrak system, and will therefore be subject to the formal inspection routine as detailed above.

However, it is worth noting that the play areas are also inspected weekly by qualified play area inspectors. As such the sites are subjected to regular informal inspections above and beyond the routine formal inspections. Reports of obvious defects from such informal inspections can be investigated and acted upon.

This informal inspection would also include any trees adjacent to the sites which are not owned by the authority but could pose a threat to users of the play areas.

Appendix 6: Strategic Links

National Context

The Government encourages local authorities to develop long-term strategies for the management and care of trees in their ownership. These strategies should plan for the eventual replacement of old trees, enable authorities to take advantage of new opportunities for tree planting provided by other urban improvement measures, and integrate awareness of the contribution which trees make to the quality of life in urban areas into the full range of local authorities' activities.

There are many national policies and strategies that affect trees and woodlands in the West Suffolk area, which have been taken into account in this Tree Management Policy. Some of these are specific to trees or woodland, and many more deal with wider issues in which trees and woodlands play an important part. The following is a brief summary:

Strategy for England's Trees, Woods and Forests. Produced by DEFRA in 2007, the strategy highlights the contribution that trees make to social, environmental and economic objectives today and sets out a vision for their future role. The goal is that by 2020 more woods will be brought into sustainable woodland management supplying raw materials for use in construction and for woodfuel, and we will have a healthier landscape for wildlife and an increase in people visiting woodlands:

The Strategy covers the full spectrum - from extensive forests to street trees and hedgerows. Within the West Suffolk context this is of note as the area has a mixture of extensive woodlands, street trees and urban woodland.

An important over arching aim is to provide 'the right tree in the right place' where they can contribute most in terms of social, economic and environmental benefits now and for future generations. This fits in well with the principle of arboriculture as a means to balance interests.

Sustainable Communities Plan. The Sustainable Communities Plan outlines plans for growth and regeneration in England. It includes significant additional housing development in the south-east. The Plan includes the following objectives:

Encouragement of the role of Community Forests at the urban fringe, citing their benefits as providing access to green spaces and woodlands on the urban doorstep, protecting and improving the countryside.

Greater emphasis on the role of green networks and corridors.

Working with the Grain of Nature - England Biodiversity Strategy. The England Biodiversity Strategy identifies woodland as a key theme and habitat. The Strategy's vision is to ensure 'woodlands and forests are managed and

created to enhance both woodland and non-woodland species and habitats, that at the same time provide sustainable goods, environmental services and recreational benefits enhancing people's quality of life'. The Biodiversity Strategy's actions for achieving this vision include:

Protect native woodland from further damage.

Enhance, extend and restore the existing native woodland resource. Manage non-native woodland to improve biodiversity in the wide landscape.

Realise the broader quality of life benefits of woodland biodiversity. Address biodiversity within urban settlements. One of the key aims is to 'ensure that biodiversity conservation is integral to sustainable communities, both in the built environment, and in parks and green spaces'.

Biodiversity 2020: A strategy for England's wildlife and ecosystem services. This strategy builds on the previous England Biodiversity Strategy and notable developments include the recognition that biodiversity is vital to ecosystem services such as combating the effects of climate change, water quality management, drought prevention and flood management. The strategy also highlights the importance of people in biodiversity and aims to involve more people and raise a greater understanding of the importance of biodiversity. In addition it places a priority on "taking better account of the values of biodiversity in public and private sector decision-making"

National Planning Policy. Several national Planning Policy Statements and Guidance Notes relate to the protection, management and enhancement of woodlands and trees. This strategy focuses on the Local Authority's role as tree owners and managers, rather than its function as a planning authority, which is dealt with by other strategies and policies currently in place. However, it is important to have regard to Planning Policy particularly in relation to the planning of new green space and woodland areas under the control of the Council to ensure that improvements are kept in line with national policies.

Tackling Health Inequalities Programme for Action. The programme for action sets out priorities for reducing health inequalities and addressing the underlying determinants of health. It identifies the importance of co-ordinated national, regional and local action on a range of issues. These include:

The need to increase levels of physical activity especially among disadvantaged groups, older people and women.

The need to improve green spaces so that they can be used for exercise and provide children's play areas.

The need for better and safer local environments so people are more able to engage in social and physical activities in public spaces close to where they live and work. **Common Sense Risk Management of Trees**. Produced by the National Tree Safety Group in 2011, this guidance sets out key mechanisms for effectively managing risk from trees, including measuring the risk and appropriate inspection regimes. It introduces the concept of risk zoning to identify highest risk areas which in turn allows efficient allocation of resources.

Regional Context

There are various policies and strategies across the East Of England which should inform a successful Tree Management Policy. The most relevant are listed as follows:

The East of England Regional Spatial Strategy sets out policies which address the needs of the region and key sub-regions. These policies provide a development framework for the next 15 to 20 years that will influence the quality of life, the character of places and how they function, and inform other strategies and plans. A major feature of the Plan is that it identifies the significant investment that will be needed in social, environmental, economic and transport facilities ('infrastructure') if it is to achieve its desired results. Of particular note are policies covering biodiversity, woodlands and green infrastructure.

Transforming Suffolk is the Suffolk Community Strategy for 2008 to 2028. It sets out the long term ambition and priorities for the county over the next twenty years. It looks ahead to the issues and challenges facing the area over the coming years and articulates a vision that all partners are committed to achieving. Aims and objectives include:

Promoting healthy lifestyles.
Protecting and improving the natural environment.
Creating green infrastructure.
Promoting stronger communities.

Woodland for Life 2003. The Regional Woodland Strategy for the East of England provides a number of strategies for the enhancement, over a 20 year period, of the benefits that trees and woodlands bring to the people who live and work in the region. The strategy focuses on the following benefits of trees and woodlands:

The social benefits relate to improved physical and mental health, enhanced living environments, increased community pride, recreation, education and community engagement.

Economic benefits, in addition to employment and the value of timber, include positive influences on inward investment, increased property values, reduced energy costs, regeneration of derelict and damaged land, and tourism.

The environmental benefits chiefly comprise biodiversity, pollution abatement, soil conservation and protection of water resources.

Suffolk Biodiversity Action Plan (BAP). The Suffolk BAP consist of a number of species and habitat action plans and reflects those habitats and species listed in the UK BAP and section 41 of the Natural Environment and Rural Communities Act 2006. It applies a specific regional context to action plans with locally identified targets and actions. Of particular note to informing tree management within the district are the following action plans:

Wood Pasture and Parkland Acid Grassland Lowland Heathland Lowland Mixed Deciduous Woodland Traditional Orchards Urban Wet Woodland

Appendix 7: Legislation

There is a well-developed legislative framework which the Councils must consider in regards to the management of trees, the most notable of which include:

Occupiers Liability Act 1957 (revised 1984). This act places a legal duty of care on a tree owner towards visitors and requires them "to take reasonable care" to maintain its trees and woods in a reasonably safe condition.. The 1984 revision deals with liability relating to other persons, including trespassers and it should be noted that occupiers can be held negligent in their duty of care even if injury or damage occurs on land where people do not have access by right or by invitation. The Courts expect occupiers to be prepared for children to behave less carefully than adults. The Courts also expect occupiers to make regular inspections of their trees and to take reasonable steps to reduce risk where appropriate.

Local Government (Miscellaneous Provisions) Act 1976. Sections 23 and 24 give Councils discretionary powers in respect of dangerous trees in private ownership. There are various situations where these powers could be exercised by the Council but only after careful consideration.

The Highways Act 1980. The Highway Authority has a responsibility to keep public highways open and remove obstructions and encroachments which may affect the use and safety of the highway. Section 154 makes provisions for the Highway Authority to deal with such encroachments and obstructions (such as may be caused by trees), which includes dangerous trees which would pose a risk to users of the highway.

The Wildlife and Countryside Act (as Amended). The act provides much of the legislation for the protection and conservation of wildlife and habitats in England and Wales, and as such is a cornerstone piece of legislation. Of particular relevance to this strategy are the following provisions:

It is an offence (subject to exceptions), to kill, injure, or take any wild bird; take, damage or destroy the nest of any wild bird while that nest is in use or being built; take or destroy an egg of any wild bird.

The Act makes it an offence (subject to exceptions) to kill, injure or take any wild animal listed on Schedule 5, and prohibits interference with places used for shelter or protection, or intentionally disturbing animals occupying such places.

It is an offence (subject to exceptions) to intentionally pick, uproot or destroy any wild plant listed in Schedule 8, or to sell, offer or expose for sale, or possess (for the purposes of trade), any live or dead wild plant included in Schedule 8, or any part of, or anything derived from, such a plant.

The Act contains measures for preventing the establishment of non-native species which may be detrimental to native wildlife, prohibiting the release of animals and planting of plants listed in Schedule 9.

The Act provides for the notification and confirmation of Sites of Special Scientific Interest (SSSI) and Special Protection Areas. Such designated areas are afforded additional protection, and any activities or operations on such sites must be consented.

Town and Country Planning Act 1990 & Planning (Listed Buildings and Conservation Areas) Act 1990. Provision is made within these acts for Tree Preservation Orders (TPOs) and protection for trees within Conservation Areas. In short permission must be gained from Local Planning Authorities (LPAs) to carry out work to trees in these categories (subject to exemptions). Where trees owned by the Council are covered under such orders or areas, permission must still be sought to carry out certain works. Exemptions include dead or dangerous trees, or branches that are classed as de minimis. Good practice is to still consult the LPA in such exemptions.

The Hedgerow Regulations 1997. If trees are within a hedgerow and the removal of the hedgerow is proposed, permission must be sought for the removal under the Hedgerow Regulations 1997. The local planning authority can grant or refuse permission for removal of hedgerows based on examining the hedge using certain criteria. The criteria identify hedgerows of particular archaeological, historical, wildlife or landscape value.

The Countryside and Rights of Way Act 2000. This act predominantly deals with providing increased access and updates the Rights of Way system. However, as some of the Council's tree stock is now on designated open access land, this must be taken into account when dealing with trees in these areas. The Act also introduced for the first time a statutory duty on Central Government to produce and maintain a list of species and habitats for which conservation steps should be taken or promoted. This list was published under Section 74 of the Act and was identical with the UK BAP list at the time.

Anti-Social Behaviour Act 2003. Part 8 this act creates procedures to enable local authorities in England and Wales to deal with complaints about high hedges. A complaint can be made to the local authority who can assess the case, acting as an independent and impartial third party. If they think it is justified the authority will be able to order the owner to reduce the height of their hedge. But there is no general requirement that all hedges should be kept below a certain height.

The Natural Environment and Rural Communities Act 2006. This act created Natural England and the Commission for Rural Communities and, amongst other measures, it extended the biodiversity duty set out in the Countryside and Rights of Way Act 2000 to public bodies and statutory undertakers to ensure due regard to the conservation of biodiversity. This duty is set out in section 40. Section 41 of the Act requires the Secretary of State to publish a list of species of flora and fauna and habitats considered to be of principal importance for the purpose of conserving biodiversity. The S41 list replaces the list published under Section 74 of the Countryside and Rights of Way Act 2000. The S41 list must be used to guide decision-makers such as public bodies, including local and regional authorities, in implementing their duty under section 40 "to have regard" to the conservation of biodiversity in England, when

carrying out their normal functions. Management of the Districts' tree stock and wooded areas is one such function that can benefit biodiversity and ensure the Council complies with this requirement.

Common Law. Common law is based on judgments made by the courts. Most common law relating to tree problems is based around 'duty of care' principles which dictate that the tree owner is responsible for the tree and any actions arising in connection with it. The areas of common law relevant to trees are;

Trees and boundaries: Roots or Overhanging branches. A tree usually belongs to the owner of the land on which the tree stands. It is the position of the centre of the trunk that determines ownership not the branches. A neighbouring landowner has the right to prune the branches of a tree which encroach onto their land. However they may only prune the branches back to the boundary and do not have the right to enter the other property without permission. The timber remains the property of the tree owner and removing it without permission could result in a charge of theft. Throwing it back could also constitute damage to property. The neighbour also needs to consider if the tree has a TPO order on it or if the tree falls into a conservation area. If either apply then the permission of the relevant local authority is required. Tree roots are also liable to the same common law principles. The owner of a tree is also usually liable for any damage to another property as a result of either its branches or roots.

Unsafe Trees. Under common law it is considered that the owner of a tree or trees has a duty of care. This asks whether a reasonable person could have foreseen the potential for the mechanical failure of the tree leading to damage to property or injury to a person. The owner is responsible for the health, safety and maintenance of their trees and is expected to where reasonably practicable to foresee any health and safety issues that could cause damage to property or people. If a tree had a large cavity in the trunk and the tree failed then the owner would have been expected to have foreseen the tree's failure and would be negligent for not sorting out the problem.

Right to light. There is no right to light under British common law. There have been no cases or precedents set. However the Anti-social Behaviour Act 2003 introduced a right to light in respect to high hedges.

Appendix 8: Tree Planting and Aftercare

Tree Planting

To maintain a continuity of tree cover the Councils will undertake the planting of new trees and woodlands on land that they manage where suitable opportunities arise.

Increasing the size and distribution of the resource is an essential part of West Suffolk's sustainable growth. The planting of trees may enhance not only existing open space, and streets but also new developments. Equally, new planting should endeavour to create green links in-between the network of green spaces in the area.

New tree planting can open up opportunities to increase biodiversity, restore or improve the local landscape character or to introduce trees of a different age class to that which already exists.

When undertaking tree planting, the principles of Right Tree Right Place should be followed.

Where appropriate, removed council trees will be replaced by new planting. Often it will not be possible to plant the additional replacement trees within the same area. In these cases the tree will be planted as close as reasonably practical.

Natural regeneration of native species is also to be encouraged so the natural genetic variation will provide a buffer against climatic variation, pests and diseases.

Clump Planting

Where tree planting is to take place, consideration should be given to planting in groups of trees, rather than individual specimens. In many circumstances there are a range of benefits when using this technique.

Groups of trees within an urban setting, such as parks and other open spaces, can have a greater benefit visually, providing a more natural looking environment.

Groups of trees can increase the visual carrying capacity of an open space. This means that more people can use the space, while the impression of a quiet and natural environment can be maintained.

Risks associated with trees can be reduced in terms of how closely people are exposed to hazards. With individual trees in public spaces, people have access to the whole tree, so people walking past and under them are exposed to the risks of branch or tree failure. With trees planted in groups, only the trees around the outer edge pose the same level of risks. In essence the exposure to risk per tree is much less when planted in a group. This is particularly useful in parks and other places where there is open access.

There are benefits to tree establishment in terms of nursery shelter from surrounding species. There may also be cost benefits in terms of tree protection.

Clump planting can also have greater biodiversity value, as clumps of trees can provide more a more diverse habitat structure and ecological niches.

Community Involvement

There are excellent opportunities for meaningful community involvement by involving local people in the care and use of trees and woodlands.

One of the most important indicators of quality of life is the extent to which people feel that they have a stake in the community in which they live and work. Engaged communities are much more likely to take pride in their neighbourhood, which in turn can reduce vandalism and antisocial behaviour.

If a tree just 'appears' on a street or community open space the community is a passive recipient. There is no ownership or responsibility since the local community has no control over the process. For communities to develop a sense of ownership and for tree planting projects to benefit from that ownership, they need to recognise that they have a stake in the project; they need a way of being involved and the capacity to actually then get involved in the process.

Wherever possible, the councils will seek to involve communities in tree planting projects. Sometimes this may not be possible due to resources or the scale of tree planting, for example straightforward replanting of council owned trees that have been removed.

Where opportunities arise for community involvement in tree planting projects, community involvement will be considered in the very earliest stages of the project and opportunities explored.

Aftercare

Whilst the maintenance of mature trees can sometimes be delayed for a year or two without risk to the health of the tree, newly planted trees require much closer attention in the course of systematic post planting maintenance.

Tree replacement and tree planting using natural regeneration will be encouraged where possible to increase the efficiency of tree establishment, reduce aftercare costs, encourage/protect local tree stock providence and increase the longevity/health of trees.

Where natural regeneration may provide replacement or new planting, it may be necessary to use tree protection measures such as rabbit guards, rabbit fencing, mulch mats or area mulching to aid establishment. In many cases this will also be necessary to identify trees for retention and prevent conflict with grass cutting or other maintenance operations.

When undertaking new planting, consideration to aftercare needs, availability of resources and likelihood of successful establishment will be a key factor in

choosing locations and species. In some instances it may not be economically viable to plant trees in certain locations as the aftercare and watering costs would far exceed the cost of planting or the likely cost/benefit of such planting. In such circumstances resources may be better allocated to other options.

The council will undertake appropriate scheduled watering for newly planted trees. Due to the variability of the seasons and conditions in specific locations, it is not possible to define these rates other than to ensure that conditions are monitored closely and requirements produced accordingly. Similarly the council will undertake young tree maintenance in terms of formative pruning on a case by case basis.

Tree protection in terms of tree or shrub guards can often cause problems if left in place too long. Often such guards can restrict growth and cause formative problems if not regularly checked or removed at the appropriate time. Tree guards also produce significant littering issues once they have broken down and can also cause an eye sore which reduces the benefits of newly planted areas. Tree protection will be removed when no longer needed.

Appendix 9: Right Tree Right Place

Alongside objectives to protect and enhance the tree and woodland resource across West Suffolk, recognition needs to be made of other key habitats, land uses and issues that effect the councils' trees.

Management and care for the councils' trees should seek to enhance their significance in terms of value, access and other benefits but also to manage the undesirable impacts they can have (such as damage to property and risk to human safety).

Towards this end, a 'Right Place Right Tree' approach should be followed which seeks to ensure new planting/colonisation are appropriately located and designed and that woodland expansion is not to the detriment of protecting and restoring existing priority native woodlands and other habitats.

In some environments, trees can cause problems. Trees which have been planted or allowed to colonise in inappropriate habitats should be considered for removal. In many cases, woodlands and trees are encroaching and reducing the wildlife value of these habitats. An ecological assessment should be undertaken to identify the suitability or otherwise of a site for new planting. A landscape assessment may also be appropriate to ascertain any potential disruption to important views or vistas. New planting should be considered within the context of an overall landscape plan and as part of a functioning ecological landscape, and should not occur randomly.

Once a site has been deemed appropriate for tree planting or colonisation, the type of tree should then be chosen to fit the environment. The following checklist highlights the principles and issues which need to be considered to achieve the right tree in the right place:

_					
rigl	right place - right tree checklist				
	 What is the existing value of the space, and would the impact of trees be positive? 				
locations	Existing habitat and landscape value: establish the habitat and landscape type of the site - shade cast by trees, and their demands on soil, water and nutrients, mean that they can kill or damage valuable wildlife habitats such as wetlands, heathlands, flower rich grasslands and brownfields so check for existing value before committing to planting.				
appropriate locations	 Tree cover history: check historical records to see if the site is in an area where there have been trees in the past, to establish whether the creation of new woodland or tree cover would be appropriate. 				
	 Development design: trees should not be located where they will experience inappropriate growing conditions e.g. in the shadow of tall buildings. 				
	 Local character: check if there is a history in the area for the use of particular species that could be a reflected in the planned planting. 				
	 Work with nature: in natural areas, employ stock of locally native origin. Best of all, work with natural colonisation. 				
	 Great trees of the future: where the setting allows, take opportunities to plant large species of trees with a long lifespan. 				
	 Accessibility: new trees and woodlands are most needed where they can provide people with access to nature and natural landscape in areas presently lacking in such access. 				
	 Infrastructure: consider existing and future infrastructure requirements – do not plant too close to over/underground infrastructure. Replace removed trees in the same pit if appropriate. 				
d design	 Highways: meet the statutory safety requirements to maintain a clear route along roads (consider heights of buses, HGVs, cars, cycles and horses). 				
species an	 Space: check available space against the final height and spread of the proposed species with a view to minimising frequency and amount of pruning required. 				
appropriate species and design	 Soil condition: the soil in hard landscaped areas is often poor. Soil compaction needs to be limited in the tree pit and adequate nutrients supplied. Use species known to be robust to these limitations. 				

Appendix 10: Major Incident Plan



WEST SUFFOLK MAJOR INCIDENT PLAN PROCEDURE FOR DEALING WITH TREES/TREE ENQUIRES

Reviewed: May 2014 By: Damien Parker (Operations Manager)

1. BACKGROUND

The purpose of this document is to detail the response of West Suffolk (Forest Heath District Council – FHDC & St Edmundsbury Borough Council - SEBC) to a major incident involving a large number of tree failures. Such trees may be in a dangerous condition; they may be blocking public highways - thus impeding emergency services; they may also be causing an obstruction on Council owned land.

A 'Major incident', for the purposes of this document, is any event which leads to a level of tree failure requiring the dedicated efforts of a number of Officers to resolve. In real terms this is likely to be a situation in excess of four incidents an hour. The great storms of October 1987 and January 1990 fall within these criteria. Lesser storms, which could result in a major incident classification, occur on average every two years.

West Suffolk's responsibilities with regards to trees in these circumstances are restricted to the following:

- 1) Neither SEBC or FHDC are currently (as of May 2014) agents of the Highways Authority and have not inspected the Highway tree stock for at least two years. That said if Suffolk County Council request the 2nd tier authorities help in dealing with an emergency situation the 2nd tier authorities will help them meet their statutory obligations.
- 2) SEBC & FHDC has a duty of care responsibility to ensure that it does not expose visitors to any obvious danger. Park Rangers will take the lead in determining whether the sites under their responsibility are closed/not opened. Prior to re-opening a site Officers/Senior Rangers will undertake a visual inspection of the trees along key routes to ensure that there are no obvious dangers.

SEBC & FHDC are not required to:

- 3) Remove or make safe trees located on private property unless they obstruct or pose a threat to a dedicated public right of way, or have fallen from Councilowned/maintained land.
- 4) Provide agreement for removal of trees protected by virtue of a Tree Preservation Order it is incumbent upon the tree owner to show at a later date (if required) that the tree in question was dangerous and thus outside Tree Preservation Order legislation.

2. ORDER OF OPERATION

Switchboard

 All tree related telephone calls should be directed to extension 7082.



- Record details of incidents on 'Major Incident – Trees – Message' Form:
 - A contact name
 - A contact telephone number
 - The location of the tree
 - A brief description of the nature of the incident
- Collate incidents derived from telephone or passed message
 giving each incident a unique number.
- Pass reports to the Coordinating Officer
- Receive from the Coordinating Officer completed works details to file for later settlement.

Note:

If an incident is recognised as being major, a dedicated administrative assistant will be seconded from the staff within the West Suffolk Parks Operation Team. The assistant will have been previously identified and briefed as to their role.

Emergency Control Centre:

Activated for the most serious incidents requiring multi agency responses when West Suffolk Emergency Plan is in effect



Line Manager (Parks Operations Manager or similar post)

- Liaise with Emergency Control Centre if West Suffolk Emergency Plan in effect.
- Liaise with other departments and agencies as required (road closures, building damage assessments, media statements).
- Represent the councils at scene of tree related fatalities.



Co-ordinating Officer (Arboricultural Officer)

- Assess scale of incident in relation to a 10 hour period.
- Liaise with Arboricultural Contractors & establish resource requirements.
- Assess reported incidents and compile priority order.
- Communicate with the Field Officer listing incidents received, and suggested order of inspection.
- Issue works orders to Arboricultural Contractors/in house teams.
- Track progress of works orders.
- Update information on incident sheet with inspection details provided by Field Officer, works carried out, status of works.
- Carry out five hour review of the emergency. Consider resources in light of this – including possible stand down times and rest periods.



Field Officer (Assistant Arboricultural Officer)

- Retain contact with the Co-ordinating Officer.
- Inspect & assess incidents as directed by the Co-ordinating Officer.
- Advise the Co-ordinating Officer as to the priority level of each incident and the resource requirements needed to resolve it.

3. Alternate Staffing

In the absence of key staff the most senior officer within the Parks Operations Team (Leisure Culture and Communities), will determine who the Co-ordinating and Field Officers are. Options include:

Line Manager

Most senior officer
 within Parks Operations
 Team

Co-ordinating Officer

- 1. Arboricultural Officer
- 2. Assistant Arboricultural Officer

Field Officer

- Suitably qualified member of the Arboricultural Contractor's staff (subject to agreement)
- 2. Parks Infrastructure Officer
- Park Rangers

4. Prioritisation

Works should be prioritised on the following basis:

- 1) sites where trees have fallen and trapped members of the public
- 2) major arterial routes across the area, which link Fire, Police and Ambulance stations and local Hospitals
- 3) other major arterial routes throughout the area
- 4) power supplies and blocked waterways
- 5) buildings
- 6) private drives and paths affected by Council-maintained trees
- 7) bus routes
- 8) other Highways locations
- 9) rights of way and access routes (including private drives and paths)
- 10) public open space in residential areas.
- 11) other parks and open spaces accessible to the public
- 12) private gardens affected by Council-maintained trees
- 13) parks, cemeteries and other open spaces closed off to the public or where public access is likely to be very limited (e.g woodland away from paths).

5. Staff Locations

Office based staff can be located in either an SEBC or FHDC office for the duration of the incident. The preferred location will be West Suffolk House within the Parks Operations Team.

Key staff able to undertake role of Co-ordinating Officer are also 'home-enabled' so that in the worst case scenario of them being unable to get into work they can still carry out their co-ordinating function.

6. Out of Hours

West Suffolk out of hours team have lists of contact numbers for key staff and agencies involved in the management of trees during out of hours periods. These officers will make judgement calls as to when to draw in external contractors to help clear fallen trees/hung up branches.

7. Arboricultural Contractors

There are currently three tree work contractors employed by the West Suffolk Councils to undertake technical arboricultural operations in specific geographical areas:

- SEBC: Single Contractor for all areas
- FHDC South: Single contractor for Mildenhall & Newmarket areas
- FHDC North: Single contractor for Lakenheath & Brandon

Issuing Work Orders

The Contractors will carry out works as directed by the Co-ordinating Officer. Works will be issued to each contractor one job at a time with the contractors required to telephone the Co-ordinating Officer to confirm completion and receive their next instruction.

For the duration of a Major Incident all work instructions shall be directed by the Coordinating Officer. It is crucial that the contractor is not diverted to other sites by third parties.

Work Standards & Welfare

The Contractor shall be particularly mindful during a major incident that the normal controls and constraints of good working practice continue to apply. The Contractors shall ensure adequate welfare and rest provision is incorporated into any response. This will be assessed during the 5 hour review period.

Waste Handling

Timber and arisings requiring removal shall be taken to the contractors own compound/s. Within SEBC areas, if necessary, timber and arisings may also be taken to pre-arranged sites at Nowton Park, Hardwick Heath and East Town Park. FHDC contractors (north and south lots), have sufficient capacity at their compounds for major incidents.

10. SEBC Landscapes Team

Prior agreement will be made with the Council's Landscapes section to have on standby equipment and staff to assist with the arboricultural response when required. The staff will come under the control of the Co-ordinating Officer for the duration of the incident.

Appendix 11: London Tree Officers Association Risk Limitation Strategy for Tree Root Claims

In electronic version double click the image below to open in PDF



The London Tree Officers Association

A Risk Limitation Strategy for Tree Root Claims

3rd Edition - Revised May 2008



The LTOA is Hosted by the London Borough of Camden

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Appendix 12: Benefits of Trees

Trees and woodland should be widely recognised as bringing high quality sustainable benefits to all who live and work in the West Suffolk area. Increasing these benefits and raising the awareness of them should be an integral part of a successful Tree Management Policy.

These benefits can be categorised into three broad groups as trees and woodland play vital roles in the social, economic and environmental fabric of the West Suffolk area.

Social Benefits

The social benefits relate to improved physical and mental health, enhanced living environments, increased community pride, recreation, education and community engagement;

Being near trees and woodlands is 'good for your health' and a vital component of a healthy life. Being around trees, even for a short while, is known to reduce stress levels, which in turn benefits our health generally as well as our psychological well being. Even travelling through a treed landscape can reduce states of stress and anxiety.

Regular amounts of walking also has well-known health benefits, including reducing the risk of diabetes and Alzheimer's Disease, reducing the risk of Coronary Heart Disease reducing the risk of osteoporosis (brittle bone disease), reducing the risk of contracting colon cancer by half, help with chronic pain, arthritis and asthma. In addition, walking can help with all sorts of mental health problems such as depression and anxiety.

Walking in pleasant surroundings can have marked effects on well-being, a concept now known as 'the Biophilia effect'. This theory suggests that quality of life in the largest sense is dependent upon the richness of our connections with nature.

Regular moderate exercise in well designed, accessible woods can lead to a reduction in heart disease and other physical illnesses. Strenuous exercise, such as mountain biking and orienteering, can have greater beneficial health effects.

There is also evidence for improved postoperative recovery rates in hospital wards overlooking wooded settings.

Trees can also bring about improvements in air quality as they filter pollutants and the provision of shade in urban areas reduces ultraviolet radiation exposure.

Dense block planting of trees along roads has a sound reducing effect, enabling a better quality of life for nearby residents, and is a less intrusive than expensive methods of reducing noise. Visually there is an economic value, as people would generally far rather gaze at trees than the harsh lines on a grassed

embankment. Areas of trees are cheaper per m² to maintain than grass and lawns.

Trees add great beauty and character to the landscape, offering a variety of form, texture, colour, size, shape and seasonal change. They also complement the built environment by providing screening, a sense of scale, focal points, privacy and seclusion. They also define, link and separate open space. This enhances the structure and layout of the landscape and is essential to our sense of place.

Trees and woods are increasingly important as an inspirational educational resource. They enable the study of a wide variety of living organisms and processes in 'a living laboratory'.

Trees and Woodlands provide great opportunities for children to create their own play environments. Enabling children to make their own choices in a natural setting helps to deepen their engagement with, and understanding and appreciation of, those settings, and has been proven beneficial to children's all round mental wellbeing.

Environmental Benefits

The environmental benefits chiefly comprise biodiversity, pollution abatement, soil conservation and protection of water resources.

Trees make a major contribution to biodiversity, particularly in an urban context, with large and mature trees, many native species and most ancient trees having the greatest value. Tree foliage, decaying wood and bark provide habitats for numerous invertebrate species, which in turn provides an important food resource for insectivorous birds, bats and animals. The trunk and canopy of larger trees also provide nest sites for birds, including several declining species, and roosts for bats.

Trees also offer a sustainable, cost-effective way of managing storm water and reducing the risk of flash flooding by trapping rain water on their leaves and slowing down urban run-off following heavy storms. This reduces drainage costs, sewer overflows and downstream damage.

Trees help to create more pleasant and comfortable microclimates by providing shelter from wind and rain; providing shade from excessive sunshine and harmful ultra-violet rays; cooling the air on hot days through evaporation of moisture from leaves; slowing down heat loss at night.

Trees must take water through their root system and transpire through the leaves. During this it filters out pollutants and releases back clean water into the atmosphere.

Trees act as a "carbon sink" that is, they absorb CO2 throughout their lives but usually reaching their maximum absorption after 10 years of growth. Much media attention has also been given to carbon offsetting using trees, however,

we need to be clear about the benefits that trees provide in terms of CO2 absorption and carbon offsetting:

Most trees absorb between 6kg to 12kg of CO2 per year. It is estimated that for every ton of timber produced 1 ton of CO2 is removed from the atmosphere.

However, most of this carbon is stored within the structure of the timber itself and it must be remembered that this is only a temporary store, as the carbon is released back into the atmosphere once the timber begins to decompose naturally or burnt as a fuel. Oliver Rackham, a botanist and landscape historian at Cambridge University has stated that "Telling people to plant trees is like telling them to drink more water to keep down rising sea levels."

The process where trees sequester carbon from the atmosphere is one of the components of the Carbon Cycle. The carbon cycle is the set of biogeochemical processes by which carbon undergoes chemical reactions, changes form, and moves through different reservoirs on earth, including living organisms. The geological component of the carbon cycle is driven by plate tectonics and includes processes like volcanic eruptions and burial of carbon-rich sediments on the ocean floor. The biological component of the carbon cycle is driven by respiration and photosynthesis by living organisms, which includes trees.

Humans influence the global carbon cycle in several ways, but primarily through burning fossil fuels. As fossil fuels can be seen as carbon stores that are not normally available within the Carbon Cycle in a relatively short timescale, then burning fossil fuels leads to a net increase in the carbon within the Carbon Cycle.

Carbon storage in plant biomass (of which trees are only one group), is a relatively small proportion of the total stored in the entire Carbon Cycle. Approximately 70 times more is stored in the oceans and 4 times more is stored within the soil. Both these stores are also much longer term and stable stores compared to plant biomass.

Carbon is stored within the soil as the product of leaf fall and the effects of soil micro-organisms. To maximise the carbon sink effect of trees this process should be allowed to take place. Therefore, trees within paved areas, or with regularly mown grass underneath, and where leaves are collected will have a much reduced carbon offsetting capacity. To maximise carbon offsetting, planting of new trees and management of existing trees should take into account these factors wherever possible

The production of Oxygen (O2) by trees, whilst removing Carbon Dioxide (CO2) from the atmosphere is often overlooked. It is due to the worldwide production of oxygen by trees (and other vegetation) that we are able to survive but on a local level we often never give this a thought.

Economic Benefits

There are many economic benefits of trees and woods. In addition to employment and the value of timber, they include positive influences on inward investment, increased property values, reduced energy costs, regeneration of derelict and damaged land, and tourism.

Trees create an amenable, healthy environment that is favourable for economic development. There is ample evidence that 'greening projects' are highly effective in kick-starting inward investment and encouraging commercial enterprises.

The 2003 regional woodland strategy estimated the economic value of woodland to the East of England Economy is in the region of £680 million per year. The majority of this however accrues from the value of the green infrastructure that trees, and woodlands provide (or capital value of woodlands in the landscape). For example, increases in house prices, inward business investment, recreation and tourism activity which generate real spend in the region but for which there is no market transaction with the woodland owner.

It has been estimated that woodland contributes significantly to about 20% of the region's "out of town" attractions, as well as contributing more generally to the visitors' experiences of a day out or holiday in the region. Some wooded areas are already major tourism magnets: Thetford Forest is the third most visited attraction in the East of England region.

The use of woodlands as a setting for art is becoming increasingly common and includes such events as concerts, plays and sculpture. Where possible the opportunities for including sculpture within tree planting or as a result of management work should be explored.

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+ 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 UK. *Chalara fraxinea* is a relatively new threat and has potential to cause significant damage among the UK'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 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 phytophthera 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 development 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 councils. 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 30m 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% in soil moisture levels in summer; an increase of up to 20% in winter rainfall – with more frequent winter storms; a fall in humidity of up to 15% 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 UK. 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.