A New Tree Policy for Kent Highway Services

A report by Alan Riley, Technical Director, Kent Highway Services, to the Highways Advisory Board on 18th September 2007

---

1. Kent Highway Services is responsible for maintaining and developing the highway network in Kent and ensuring the safety of its users. As part of Kent County Council it has a wider role in managing and enhancing the environment and, as part of its commitment to safety and to the environment, it aims to sustain a balanced and healthy highway tree population. These roles can on occasion lead to conflict largely as a result of misunderstanding the necessity of essential tree safety maintenance, the motives behind the work or in some cases the delay in carrying out works.

2. This policy sets out the strategic objectives on which KHS will base the management and enhancement of the highway tree stock. It will be reviewed annually and when there are significant changes in legislation or best practice recommendations.

3. Arising from the objectives is a set of operational processes which define how they are to be met on a day to day basis. The highest priority for funding is to ensure the safety of the highway. Other objectives will be met or worked towards as budgets permit.

4. The policy recognises the need to develop an inventory of all highway trees and information arising from data collected and managed in this inventory will inform future management decisions and help plan future funding to meet those objectives.

5. The new policy for trees is set out in Appendices 1 and 2 of this report.

Recommendation

6. Subject to the views of this Board, it is proposed to recommend to the Cabinet Member for Environment, Highways and Waste that the tree policy set out in Appendices 1 and 2 be adopted.

Accountable Officer: Alan Riley, Jacobs 01622 666456

1.0 Introduction

1.1 Kent is often referred to as 'The Garden of England'. Land use is predominantly agricultural and the countryside is a mosaic of fields, with trees and small pockets of woodland. The highways are often lined and defined with trees and shrubs leading into adjacent woodland. Trees are an asset which needs special consideration when integrated into the built environment. It is necessary to balance their ecological and aesthetic advantages against the restrictions imposed by modern development. Trees and the built environment can co-exist but each is capable of damaging the other. Getting the balance right is important and Kent County Council together with a number of partners has produced 'The Kent Design Guide'. Good design adds environmental, economic, social and cultural values – it enriches our lives. The document aims to create desirable places that reinforce Kent's distinctive character. The following policy objectives seek to develop areas of consideration both in the planting of new and the maintenance of existing trees and will follow recommendations in the document.

1.2 Kent Highway Services (KHS) acknowledges that trees play an important role in the county and contribute to the visual amenity of both rural and urban landscapes and help to mitigate the impact of the highway. The perception of the role and importance of trees in the environment has changed dramatically in recent years and there is now a greater appreciation of the value of trees, particularly in the urban environment. In addition to their visual role, trees can remove a range of atmospheric pollutants, provide shelter and shade, reduce glare, stabilise banks, reduce perception of noise, have ecological and conservation value and produce timber. Against these benefits are the problems associated with the obstruction of lighting, signs and vision, the physical obstruction to both vehicles and pedestrians, root damage to the highway and adjacent properties and the danger of falling limbs or whole trees.

2.0 The Highway

2.1 The highway is defined as a road, bridleway or footpath over which the public has a right of access. Generally the highway includes the adjacent verges and the land up to, but not necessarily including, the boundary. The boundary, whether it is a fence, ditch, hedge or other physical marker, is generally the responsibility of the adjacent landowner.

3.0 The Tree

3.1 Trees are complex living organisms and are subject to pests and diseases and to climatic and site changes. Many species, because of their ultimate size or characteristics, can be considered unsuitable for urban or roadside planting but have been planted because of the suitability of their other characteristics e.g. toleration of air pollution. In order for these species to be used effectively they may require regular maintenance or sufficient growing space to avoid impacting on the highway.

3.2 Some species have characteristics that are undesirable and difficult to manage by regular maintenance and consideration has to be given as to whether suitable planting locations exist for them. Unfortunately many undesirable characteristics do not exhibit themselves until the tree is mature or, more usually, over-mature. KHS has been left with a legacy of problems as a result of well intentioned planting scheme undertaken some 40 or more years ago. Typically, these problems include root suckering, blocking of vision splays by basal growth, size of tree inappropriate for location and problems associated with root damage both to the highway and to adjacent properties. The effect of these problems is more noticeable today due to increased traffic volumes, a reduced tolerance to safety infringements and to property damage.

4.0 The Asset

4.1 In order to manage trees effectively KHS needs to understand the tree asset across the county. The asset inventory needs to include at the very least the number of trees, the species distribution, the age classes, the tree condition and the tree location. Information on these factors will help determine whether a particular species or location requires special management intervention and will aid future programming of inspection and work frequencies as well as budget requirements. The asset data will be managed using specialist tree management software, Confirm, in conjunction with other asset features within KHS.

5.0 The Inspection

5.1 The maintenance and care of the trees that grow in the highway is generally the responsibility of KHS. Trees growing on land adjacent to the highway or in the boundary are the responsibility of the adjacent landowner and for the purposes of this document will be referred to as private trees.

5.2 Tree safety inspections are undertaken on all highways and the frequencies are currently determined by the road classification with major roads, strategic roads and locally important roads being inspected every two years and minor roads every five years. All inspections and resultant tree works are recorded to provide an auditable trail. This inspection regime, carried out by qualified arboriculturist teams, meets the recommendation in 'Well Maintained Highways' (Roads Liaison Group 2005). Future inspection frequencies will be determined by the analysis of data from the tree management software. It may well be that certain tree species in certain locations will in future be assessed as requiring an annual inspection. Other locations could have the inspection frequency extended from two to five years. In any event the frequency will always meet any national standard or recommendation. All inspections and actions will be in accordance with this policy and with KHS practice notes. KHS will regularly review the processes for highway tree management to ensure they are robust and defendable. The adherence to a process and the prioritisation of works against available budgets is considered sufficient to meet KHS's duty of care.

5.3 All safety works arising from the inspections will be prioritised to a series of timescales recommended by the inspector. Urgent safety works will always be undertaken with lower priority works being subject to budget availability. Works that can be included as necessary for highway safety are removal of deadwood, felling of dangerous trees and clearance of obstructions to carriageways, footpaths and vision splays. In the case of damage to property or other structures KHS will combine arboricultural advice with advice from appropriate specialists such as structural or highway engineers.

5.4 Private trees may affect the highway and, unless the inspector considers immediate action is required, their owners will be recommended to seek competent professional advice to determine the works required and the appropriate timescale. KHS will liaise with the owners to ensure that appropriate action is taken to remove any hazard to users of the highway. KHS monitors private owner responses and in urgent cases or where an owner cannot be contacted or is unwilling to undertake the minimum required safety works KHS ultimately has the power to enter the adjacent land to undertake the works and to recover the associated costs from the owner of the land.

5.5 Regular maintenance and non safety issues caused by existing trees will, where possible, be controlled by a maintenance regime subject to available budgets. Maintenance works will be based on priorities that consider the growth characteristics of the trees, their location and the need for maintenance. For example quick growing trees along a school bus route will need a higher maintenance frequency than the same trees growing along a wide urban street with infrequent use by high sided vehicles.

5.6 A great deal of research has been undertaken into risk management and maintenance techniques including timing of operations. They are all aimed at ensuring a tree is retained in a sound and healthy condition, is free from serious defects and, in the longer term, benefits from the work carried out. Appropriate management techniques include crown thinning and crown reduction and can all be used effectively on highway trees. Felling is undertaken where there is an overriding safety consideration or where a tree's condition is considered to be beyond reasonable repair.

5.7 Inspection of trees will be carried out by a suitably qualified professional and any work undertaken will be based on the observations and recommendations of the inspector within an appropriate timescale.

5.8 Regular maintenance work, for example pollarding, should be carried out at intervals to maintain the character of the road concerned. The frequency of pollarding will be decided for each road giving regard to the location, species and condition of trees concerned. Regular maintenance cycles and strategies are desirable where site conditions indicate that maintaining trees at a reduced size is necessary to mitigate claims, particularly subsidence claims, against KHS.

5.9 Managing an aging tree population can mean that managers have to make what on the face of it seem drastic management decisions. Data from the asset inventory will be used to develop management plans. These are often used in forestry and arboriculture. The aim of a management plan in commercial forestry for example can be to plant the right species on the right site and to harvest the crop at a point in time where maximum timber value can be obtained. This will often mean felling healthy trees when they are actively growing. In many highway situations, particularly in urban areas, management plans will consider whether it is appropriate to allow trees to become too big or to age to a point where constant expenditure is required to retain them in a safe condition. It may also be that the existing tree stock detracts from the character of an area through the use of inappropriate species or planting patterns. A management plan will define a process of tree removal, management and replacement and will, over time, generate a street scene comprising trees of varying ages and sizes appropriate to the character of an area. The maintenance of formal avenues will take into account the need to manage the avenue as a feature rather than the individual trees forming the avenue. The impact of removing a small number of trees at any one time will be less than a scenario where all the trees in one location, of a similar age and size, need removing over a short period of time. Cherry species for example are popular in urban locations but experience has shown that beyond 40 years old they can decline rapidly. If cherry is considered an appropriate species, a management plan should not allow any cherry to grow beyond 40 years old. A better approach would be to remove and replant one quarter of the trees at year 10, another quarter at year 20 and so on. This will ensure a street always has a good stock of trees to provide an amenity feature.

5.10 Management plans and maintenance programmes will, over time, aid predictability of spend and help to smooth out budget spend profiles.

Objective 1 To ensure the safety of the users of the highway. Action KHS will arrange for the inspection of highway trees and trees adjacent to the highway using suitably qualified inspectors. Safety works will be prioritised

and, subject to budgetary constraints, will be undertaken within the timescale recommended by the inspector. The felling of trees will be undertaken where other maintenance techniques have failed or are impractical due to the condition of the tree.

The processes guiding the inspections and tree works implementation will be reviewed at least annually to ensure they meet current legal and duty of care standards.

The inspection frequency will always meet any national standard or recommendation. Currently, August 2007, major roads, strategic roads and locally important roads are inspected every two years and minor roads every five years.

Owners of private trees will be advised of the need to have their trees inspected by a competent person and to undertake works recommended by that person. Where work is not carried out and a tree or trees represent a danger to users of the highway KHS can, and will, use legal powers to ensure private owners comply with the recommendations of an inspection.

KHS will review tree management processes and policy against changes in national policy and recommendations for best practice.

6.0 The Site

6.1 It does not necessarily follow that a site used for tree planting some years ago is suitable for replanting. Many factors have changed in the intervening years; there is a greater volume of traffic, traffic flow is often faster and the utility companies have increased their service provision. These factors tend to make more sites less suitable for tree planting.

6.2 During the course of the tree safety audit, a record of all trees removed for safety reasons is maintained. The arboriculturist will, at the time of inspection, record whether the removal of a tree has a significant impact on the locality in line with the following table;

Replanting Priority (1 Highest → 5 Lowest)

Planting Site	Criteria
1	Protected tree (TPO or Conservation Area)
2	Significant single tree that by reason of its species, age, stature or historical connection contributes significantly to the local amenity.
3	Tree forming part of a significant feature e.g. avenue that contributes significantly to the local amenity.
4	Trees forming part of a street scene of mixed tree species and age classes.
5	Individual trees of no particular significance.

6.3 The impact will be defined by the status of the tree i.e. the size and species of the tree and its location, or whether it is afforded protection in any way. For example, a particular road may be defined by an avenue of a single tree species and, over time, the removal of trees within the avenue would detract from its amenity value. It would be appropriate in this situation to replace trees removed to ensure that in the long term the amenity of the area is maintained or enhanced.

6.4 Before replanting can be undertaken many site specific aspects will require input from engineering and arboricultural specialists. There are numerous constraints that may make a site unsuitable for planting, see Appendix 1, and it may be that a site is considered unsuitable for planting despite the previous existence of trees there. In some situations it may therefore not be possible to replace trees within a particular feature on a like for like basis.

6.5 The choice of planting species will be appropriate to the site and to recommendations within The Kent Design Guide. Given the long term nature of trees the choice of species for a difficult site may need to reflect possible climate change issues.

6.6 The planting season extends from November to March and in order to meet this timescale it will be necessary to identify and overcome the site constraints well in advance. Planting Sites 1 – 3 inclusive will be assessed immediately they are identified as it may take up to two months to gather the necessary information to confirm that planting can go ahead. Depending on the timing of the tree safety audit it is inevitable that some sites will miss the planting window and they will be carried over to the next season. From a practical point of view deferring these sites until the following season will ensure the best availability of planting stock and the best likelihood of their survival.

6.7 The replanting of Planting Site 1 will be subject to consultation and agreement with the local district or borough council. Where replanting is required in a specialist site such as a Roadside Nature Reserve KHS will liaise with the manager of the site or obtain ecological or landscape advice in advance of planting.

6.8 Replanting recommendations aimed at maintaining or enhancing the character of an area will be in line with recommendations in ‘The Landscape Assessment of Kent’ (2004 KCC)

6.9 KHS is aware that funding may be available from a number of sources including local authority initiatives, memorial tree planting schemes and other local initiatives and will

work with the sources to enhance any tree planting opportunities on the highway. All replanting will include a maintenance regime to ensure successful establishment.

6.10 Where replacement planting cannot be achieved due to site constraints KHS will liaise with District and Parish councils and local groups to determine whether other local sites can be used.

Objective 2

To maintain and enhance the highway tree stock and to ensure that tree species are appropriate to specific site requirements in line recommendations in 'The Kent Design Guide' and 'The Landscape Assessment of Kent'.

Action

Where appropriate, KHS will undertake the replanting of trees removed for safety reasons.

KHS will seek professional engineering and arboricultural advice as to the suitability of each site for tree planting and the appropriate tree species for that site.

KHS will obtain specialist advice before planting on sites such as Roadside Nature Reserves.

KHS will seek appropriate alternative sites and funding opportunities where site constraints and budgets prevent replanting.

7.0 Arboricultural Contractors

7.1 Trees can be permanently damaged as a result of poor workmanship and this damage may increase future maintenance needs and costs. The scale of the work, the skill of the contractor and the health of the tree are among some of the factors that can affect them.

7.2 Arboricultural contractors require specialist knowledge and skills to properly undertake maintenance work. Contractors should, at the very least, have appropriately trained staff, the correct equipment with maintenance records, a trained person to undertake risk assessments, a staff training programme and a stated Health and Safety policy. This is in addition to the financial and insurance requirements of working for KHS. The contractors working and office practices will be subject to regular review by KHS.

7.3 KHS will define minimum standards and will work with arboricultural contractors in developing training programmes to ensure their staff meet the standards.

7.4 Arboricultural work can generate a high volume of green and woody residues. Most of this is chipped on site and disposed of by contractors for a variety of end uses. KHS will monitor the overall volume of the residues and will work with contractors to identify and coordinate a sustainable end use policy for Kent (Wood pellets for sustainable boiler facilities).

Objective 3

To maintain and enhance the stock of highway trees.

Action

KHS will use specialist arboricultural contractors when undertaking tree maintenance. All works will be to the appropriate British Standard.

KHS will help develop and sustain preferred arboricultural contractors and ensure that their workmanship and competency meets required standards. Contractors failing to meet the standards will be removed from the preferred list.

KHS will work with contractors to implement a sustainable end use policy for residues arising from arboricultural works.

8.0 Highway Improvements and Utility Services

8.1 KHS will ensure internal communication procedures are in place and that arboricultural advice is sought for highway improvement schemes that may affect trees.

8.2 The cutting back of trees from overhead cables is the responsibility of the utility company and not KHS.

8.3 Where the installation or maintenance of underground services is concerned the utility company is required under The New Roads and Street Works Act 1991 (NRSWA) to give advance notice of its proposals to KHS. During the period of notice KHS will consider the effect of the proposals on highway trees. Various codes of practice under NRSWA and guidelines issued by the National Joint Utilities Group (NJUG) contain advice on the working practices to be adopted when working near trees and the utility companies are expected to comply with the minimum recommendations in the guidelines. NRSWA makes provision for the utility companies to pay compensation to KHS for damage or loss suffered as a direct result of their street works.

Objective 4

To minimise the damage to highway trees caused by highway improvements or essential service maintenance or installation.

Action

KHS will liaise with the utility companies to ensure they comply with relevant codes of practice and guidance notes when working near trees.

Where damage occurs to trees the utility companies will be required to undertake or fund remedial tree surgery or replacement replanting.

9.0 Nuisance

9.0 Nuisance is often difficult to define. Screening by trees may be acceptable to one person and shading caused by the same trees may not be acceptable to the next door neighbour.

9.1 Trees typically are often viewed as a nuisance because of, amongst other things, leaf fall, seed drop, shading, branch overhang and honeydew (secretions from aphids feeding on foliage) deposition. In terms of providing a long term solution these problems are difficult if not impossible to deal with short of removing a tree. With many tree species, problems can be worsened by poor maintenance; the shading from regrowth following pruning can be worse than the original shading problem. There is no legal requirement for an owner of a tree to carry out works to abate this type of nuisance. Activities such as clearing up fallen leaves or seeds are seen as normal household maintenance operations and while they clearly are a burden to some people they are just a fact of life, particularly when weighed against the benefits that trees provide to the environment and the wider community.

9.2 Certain types of nuisance fall into the category of legal nuisance and the owner of a tree must, if advised of the nuisance or the likelihood of a nuisance developing, take steps to abate the nuisance. The problems associated with root damage fall into this category and it is difficult for an owner to declare ignorance of this problem as it is now well documented and advice and research data is widely available, even to the layman. The tree owner's insurers will require suitable preventative action to be taken well in advance of the likelihood of a claim being made against them.

9.3 Whether or not work is needed to reduce nuisance will be judged on an individual tree basis. Works can include cutting back (even complete removal) from adjacent property to prevent damage (actual or potential). Works over and above that needed to maintain the tree in a safe and or healthy condition will only be considered in the severest cases of nuisance.

9.4 Works will not be undertaken on a tree to reduce shading, overhang of an adjoining property, to reduce leaf and fruit fall, to improve television signal reception or to stop honeydew deposition.

Objective 5

To minimise the likelihood of insurance or other claims against KHS.

Action

KHS will seek appropriate advice from its tree advisors, legal advisors and insurers in respect of action required to mitigate any claim or future claim that may arise.

10.0 Communications

10.1 KHS has a duty to ensure the safety of users of the highway; it also has a responsibility to provide information where its actions impact on the local environment or amenity. Many of the complaints and concerns received from members of the public are related to a lack of knowledge of proposed tree works and a lack of understanding of the suitability of different treatment regimes. KHS will provide details of survey work, proposed tree works and replanting to interested parties, including local authorities and tree wardens, on a regular basis. KHS will hold liaison meetings with local authority tree officers on a six monthly basis.

10.2 Where significant programmed tree works are proposed that may have an impact on local amenity or environment KHS will, in addition to the above, carry out a letter drop to residents affected by the proposals at least one week in advance of the works. Where contractors are working on site they will display information boards with KHS contact details.

10.3 Communications with private tree owners following tree safety inspections will include an information leaflet to assist the owners in understanding how KHS manages highway trees and their own responsibilities as a tree owner. KHS will prepare and disseminate a further information leaflet outlining the objectives contained within this policy and how the objectives will meet customer expectations for tree management. In some cases KHS will take no action to manage trees where there is no safety related issue and it is better that customers are aware of this from the outset.

Objective 6

To communicate tree survey and tree management information.

Action

KHS will provide information on survey progress and tree works to district councils and to parish councils through the tree warden scheme.

KHS will provide programme information through its web site and will provide advisory leaflets on tree management policies.

KHS will hold six monthly liaison meetings with nominated district council officers.

KHS will carry out letter drops to local residents at least one week in advance of undertaking significant programmed tree works in one location.

Appendix 2

Planting Constraints

- Site suitability
  - Service runs (underground and above ground).
  - Vision splays and proximity to highway signs.
  - Clearance for pedestrians and vehicles.
  - Clearance for adjacent properties.
  - Objection from adjacent property owner.
  - Lead time for planting season (November – March).

- Species suitability
  - Ultimate size and form.
  - Growth rate.
  - Long term suitability (climate change)
  - Undesirable characteristics (leaf and seed drop, surface rooting and suckering, high water demand etc.)
  - Matching existing species in situ.
  - Different species will only be used if the original is:

. Unavailable on the market.
. Unsuitable for the location.
. Prone to pest & disease attack.
. Part of a road containing mixed types.

Useful Reference Documents

BS 5837: 2005 Trees in Relation to Construction.

Tree Preservation Orders - A Guide to the Law and Good Practice.

BS 3998: 1989 Recommendations for Tree Work.

Codes of Practice under the New Roads and Street Works Act 1991.

Guidelines for the Planning, Installation and Maintenance of Services in Proximity to Trees: - NJUG Publication No 10.

Highways Act 1980.

Well Maintained Highways: - Roads Liaison Group 2005

The Landscape Assessment of Kent - Kent County Council 2004.

The Kent Design Guide – Kent Design Initiative and all Kent's local authorities 2005