STORMS
operating principles
and standards

Executive summary

Introduction

In May 2004 this authority adopted Southampton's Tree Operational Risk Management System or STORMS. This system was developed by the then Open Spaces with key internal partners from Health and Safety, Risk and Insurance Management, and external industry experts.

The first phase of STORMS was completed in September 2011 and in light of data accrued, legal requirements and current best practice, in particular the guidance by the National Tree Safety Group, a review and internal consultation was carried out and the recommendations implemented in February 2013. STORMS remains a defendable system of tree management.

The summary aims to explain the outlying principles about how STORMS operates, for specific detail on any elements refer to the relevant section in the full document STORMS Operating Principles and Standards.

What is STORMS. STORMS is a proactive system for managing the risk of trees owned by Southampton City Council causing injury or damage as a result of their failure.

A Defendable System: - The basic principle of STORMS is that it is a defendable system where actions, inspections etc are generated by potential risk and are also capable of being recorded so that they can be retrieved in the event of an enquiry. Hence the system not only manages risk effectively but also provides a clear audit trail and history.

How does STORMS Work?
STORMS aims to minimise the risk of trees causing injury or damage as a result of their failure. It does this by separately assessing risk and hazard. Two key terms to understanding the process are defined as follows:-

- **Risk** is location based.
- **Hazard** is linked to the individual tree.

STORMS specifically addresses the risk of damage or injury caused by a tree failure (i.e. a limb falling or a tree falling over), it does **not** address other forms of damage that may be caused by trees (e.g. subsidence, direct root damage).

Risk Zone Mapping: - To ensure best use of available resources the City has been divided into Risk Zones. These Zones are defined according to usage, for example high useage parks and open spaces, playgrounds, and heavily used major routes. All trees are situated within a risk zone.

Hazard Assessment: - Within these risk zones all individual trees are assessed to identify the hazard they may present. A surveying system has been developed where the condition of the tree is compared with its situation to provide a numeric hazard score.

Regularity of Inspections: - The software used for tree management produces inspection schedules based on risk zone and individual hazard assessment that identify when trees need to be inspected.

Type of inspections: - Trees will be inspected using either detailed or formal inspections. The type of inspection is primarily determined by the risk zone. Trees in High/Medium risk zones will receive detailed inspections and trees in Low risk zones will receive formal inspections.

Work Priorities: - Work generated by programmed inspections will be prioritised according to urgency; response timescales will be based on the priority rating.

Customer Enquiries: - Customer enquiries will initially follow the established Traffic Light Trees protocol. As the system develops new user-friendly information will be provided to explain STORMS and how to request tree work. All customer enquiries will receive an acknowledgement response within 10 days.

Failure Log: - To ensure that the system effectively uses all resources a failure log detailing all failures and the attenuating circumstances. This will ensure that more information about tree failures can be established by examining patterns etc.

Measuring Performance: - The following local indicators have been developed to measure the performance of all of the key areas of STORMS. More detailed targets will be set once STORMS has been operating for a year and baseline data established the initial general targets are as follows: -

- Percentage of work on council owned trees in the emergency category (target annual reduction).
- Percentage of planned work undertaken on time (target annual increase).
- Number of incidents recorded in the failure log each year (target annual decrease).

Resources

The City Tree Maintenance Budget: - The budget available for undertaking tree work in the City will be subject to regular review in the light of developing priorities. To apply these principles across the City a single Tree Management budget is considered essential as without this level of budgetary control available resources will be subject to local variation without a proper assessment of the implications in terms of risk.

Implementation:- The implementation of STORMS is a 2 phased project:-

Phase 1 (up to 31/08/11) included the initial risk based survey of trees within the city to determine hazard ratings. This initial period was a bedding-in period for the system, as atypical levels of urgent work were generated by the rigorous inspection. As a result target response times and work levels will vary accordingly.

Phase 2 (post 31/08/11) Normal running of the system, subject to regular review of the operating systems, budget levels and priorities.

Introduction

What is STORMS?

STORMS stands for Southampton's Tree Operation Risk Management System (as revised). This is a system of tree management that has been developed and reviewed to enable Southampton City Council to meet Government guidelines, legal requirements and best practice in managing its treestocks.

STORMS is essentially a defendable system, it incorporates a prioritised system of inspection, ensures that recommended actions are acted upon, recorded and that appropriate documentation is present. The whole process is considered to be sufficiently systematic to demonstrate that the Local Authority dispensed its duty with "reasonable care" and took appropriate action as necessary to protect the general public. Regular scheduled tree inspections and the timely implementation of remedial work will prevent or correct many structural defects in trees before they become a hazard to the general public.

STORMS is based on the following criteria:-

1. Policy Statement
2. Regularity of Inspections
3. Service Standards (Goals and Outcomes)
4. STORMS in Operation
5. Resource Assessment
6. Risk Zone Maps
7. Hazard Rating of Trees
8. Training
9. Recording
10. Review
11. Failure Log
12. Dangerous trees on private land

Mission statement

STORMS impacts directly on 2 of the City Council's five priorities: -
- Improving community safety and reducing crime and disorder.
- Improving the streetscene and the environment.

The mission statement for the service is
To provide and manage a sustainable tree resource that is as safe and as diverse as possible.

## 1.0 Southampton City Tree Care Policy Statement

Scope of the Service
The Tree Team, within City Services, provides the Southampton City tree care service. The service impacts on all council owned trees.

The Aim of the Service
The service aims to provide and manage a sustainable tree resource that is as safe and as diverse as possible. Development Control work and Tree Preservation Orders are outside the scope of this policy.

The Risk Management Policy – STORMS
The revised Southampton's Tree Operation Risk Management System is a proactive system that will ensure that **all** elements of the service are focused on minimising the potential hazard presented by trees as a result of their failure. STORMS is a fully integrated approach recognising that all elements of the service need to work together to reduce the risks associated with trees within the urban environment, to do so STORMS will combine the following four service elements:-
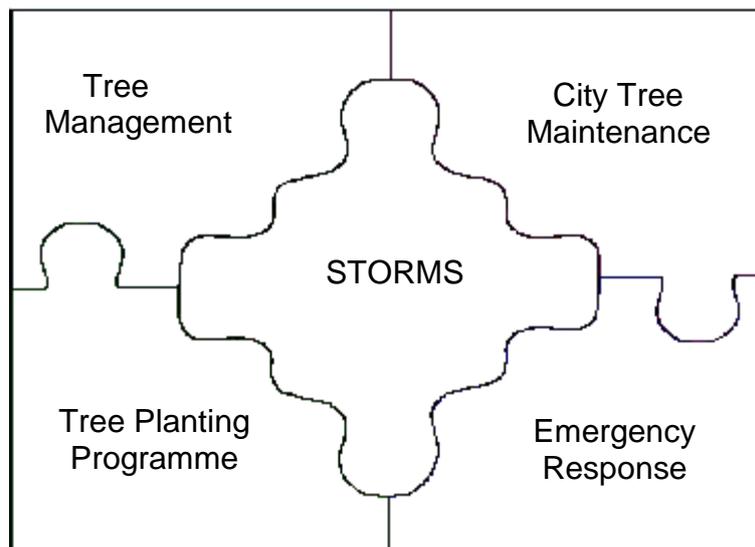
STORMS: - is the defendable system of tree inspection and management that incorporates the following four elements: -

- **Tree Risk Management: -** Trees are evaluated to determine the potential risk they may present in the event of their failure. Inspections determine current and potential risk and measure the risk associated taking into account identified hazards. (Risk is the likelihood of someone or something being hurt or damaged by a hazard. Hazard means anything that can cause harm).

- **City Tree Maintenance: -** Maintenance work is primarily focused around addressing immediate and potential risk.

- **Tree Planting Programme: -** The aim of the planting programme is to ensure the planting of suitable sustainable trees in appropriate positions to enhance the street scene and the quality of the local environment.

- **Emergency Response: -** Aims to provide a 24-hour 7 days a week service in response to tree emergencies within the City and failures recorded.

Specific Service Objectives
The Tree Unit and all other council departments are committed to follow policies and best practice adopted in Southampton. This commitment includes ensuring that ongoing staff development results in a full awareness to the existence and implementation requirements of the following service objectives and best practice:

Tree Risk Management	
•	A systematic inspection and recording regime following current British Standards and industry best practice on a frequency appropriate to the hazard risk assessment for each tree on council land shall be established and maintained.
•	All trees on council land will be managed as if a Tree Preservation Order protected them. As a result portfolio permission will be required for any tree works other than removal of dead, dying or dangerous trees/materials.
•	STORMS will be the accepted council policy to ensure that all possible resources are focussed on identifying potential tree related hazards.
City Tree Maintenance	
•	Maintenance work undertaken will be primarily targeted at reducing potential and actual hazards.
•	All tree work will follow current British Standards and industry best practice as the minimum standard
•	STORMS, including Traffic Light Trees, will be the system of work allocation and prioritisation used to respond to tree enquiries.
Tree Planting Programme	
•	Tree planting selection will be based on the minimisation of future risk. All decisions on planting will be based on achieving sustainable tree cover to benefit the Streetscene, and minimise, through the use of appropriate tree species, the potential for future hazard and nuisances.
•	Native species will be utilised as appropriate without reducing the diversity of species in more formal locations.
•	All plantings will follow current British Standards and industry best practice as a minimum standard.
•	Trees removed on City public open spaces shall be replaced on a two for one basis, this will follow the STORMS framework so appropriate replacements will be placed in suitable locations.
Emergency Response	
•	A 24 hour emergency response service will be available at all times
•	Reasons for tree failures will be assessed and recorded immediately Lessons learnt from tree failure will inform future tree management.
•	The City Council will endeavour to ensure that private tree owners are, where liable, charged for emergency costs incurred by the council in the event of their trees failing.

2.0 Regularity of Inspections

Works identified through STORMS, or in response to Traffic Light Trees enquiries, will be dealt with by a planned programme of tree works that will deal with identified problems and hazards on a priority basis. Additionally, there will be emergency works and recharged project work. Traffic Light Trees is currently the Open Spaces policy for managing tree related enquiries.

Proposed Funding	Work Category	Detail	Target Respose Time
City Tree Budget	Emergency	Response to trees that are perceived as imminently dangerous.	2 hours maximum
	Urgent Work	Response to trees that are perceived to be dangerous but where work needs to be undertaken at a safe time.	2 weeks
	Planned Red	Works on hazardous trees identified through STORMS and Traffic Light Trees visits.	Works to be completed within 12 weeks of inspection
	Planned Amber	Work to abate or remove actual or potential nuisance caused by city trees.	Works to be dealt with within 6 months of inspection
	Planned Green	"Good neighbour" issues, for example reduce encroachment over properties.	Works to be completed within 12 months of inspection
Extra Payment	Recharge	Ad hoc projects and cosmetic tree works.	As and when required
	Private Emergency	Emergency response to deal with hazardous private trees blocking or threatening highways.	2 hours maximum
	Private Planned	Agreed works to deal with hazardous trees, for example on city council leased land.	As and when required

Omissions

Prioritising the tree work ensures that the city council is able to undertake all of the more important work that arise. As a result some types of tree work that fall into the Planned Green category are not undertaken, currently these include pruning where there are the following issues:

- trees obstructing terrestrial or satellite television reception;
- trees obstructing mobile phone reception;
- trees obstructing light;
- trees obstructing views;
- fruit, flowers, honeydew (sap) and leaves falling from trees;
- to remove or reduce incidence of insects or birds;
- trees that are claimed to be 'too big' or 'too tall'.

Inspection Types:

Trees will be inspected using either detailed or formal inspections. The type of inspection is primarily determined by the risk zone. Trees in High/Medium risk zones will receive detailed inspections and trees in Low risk zones will initially receive formal inspections. Should the formal inspection detect any significant defects then a detailed inspection will be carried out. All trees in all zones will be subject to ad hoc informal inspections by both lay and competent personnel.

All detailed and formal inspections will be carried out by a competent person experienced in the field of investigation and will have a minimum NVQ level 2 qualification in arboriculture.

Detailed inspections
Detailed inspections will be carried out to individual trees in the high and medium risk zones and on trees identified from a formal inspection as giving high-priority concern in well used areas. This will initially entail ground level visual assessments looking at the exterior of the tree for signs of structural failure and in addition to tree physical parameters record the date of inspection and any actionable defects (conditions), i.e. those defects that are hazardous to the public or are a nuisance. Full details of the methodology are included in the revised version to the STORMS work manual. Further detailed investigations may be required, involving one or more of the following: soil and root condition assessments; aerial inspection of the upper trunk and crown; or other procedures to evaluate the nature and extent of internal decay/defects.

Formal inspections
Formal inspections will be carried out on individual trees, group trees, informal hedges and woodland trees in low risk zones. The inspection will be a ground level walk-over type of inspection and will only record the date of inspection and any actionable defects, i.e. those defects that are hazardous to the public or are a nuisance, as detailed in the STORMS work manual.

3.0   Service Standards

The specific service standards are as follows: -

Tree Risk Management
To reduce the risk posed to the public by tree related hazards we aim to meet the following targets: -

- 90% of all trees will be inspected within their designated timeframes.
- 90% of all identified hazards will be addressed within a 12-week period.
- Staff training plans will be produced via the appraisal process, and will ensure that all staff are updated on developments in tree hazard identification.

To ensure that the system is defendable: -
- All appropriate tree related records will be stored and linked to the relevant tree.
- The rules and service standards will be subject to regular review.

City Tree Maintenance
To ensure that the service maintains a customer focus, and meets corporate standards: -
- All tree enquiries will receive an acknowledgement response within 10 days.

Tree Planting Programme
To ensure that a sustained tree cover is maintained in Southampton: -
- A survival rate of 90% (three years after planting) will be the target for all tree plantings (excluding losses from vandalism).

Emergency Response
To ensure that risk to the public through tree related failures is minimised: -
- All emergency works will be addressed within 2 hours (excluding *force majeure*).

Performance Indicators
PIs are used to set service targets and to measure performance. The results will determine how well the service is performing and can be used to identify areas where improvement is necessary.

Currently there are no national PIs relevant to tree risk management, the following local indicators have been developed to measure the performance of all of the key areas of STORMS. More detailed targets will be set once STORMS has been operating for a year and baseline data established but the initial general targets are as follows: -

- Percentage of work undertaken on council owned trees in the emergency category (target annual reduction).
- Percentage of planned Red work undertaken on time (target annual increase).
- Number of incidents recorded in the failure log each year (target annual decrease).

4.1 STORMS in operation

These are rules of operation that set the boundaries and scope of the system. They are summarised as follows:

1. All trees to be inspected within their designated inspection times.
2. Comprehensive records to be kept.
3. Training programmes to be followed and recorded.
4. Corporate Standards to be adhered to.
5. There will be a 24-hour, 7 days a week emergency response.

5.1 Resource Assessment

At present the financial resources available for tree management are held in many different places. In many cases the budget holder has no programme for inspection or undertaking maintenance work, City Tree Officers may be called in to resolve specific tree problems. In these cases work is ordered on an ad-hoc basis, and the budget is subject to reduction without a real appreciation of the implications.

A key component of STORMS requires the City Council to recognise the need for these budgets to be centralised to create a single City Treecare Budget within the Environment and Transport Portfolio. This budget would be purely aimed at the implementation of STORMS works (as identified in section 2 - **Regularity of Inspections**). Only then can the implications of budget adjustments be identified in terms of the effect that they will have on STORMS, and the available resources can be efficiently targeted at risk reduction. Furthermore this will enable the specialist Officers to monitor and manage all city trees and ensure that they are subject to STORMS. To ensure that existing budget holders are fully aware of the service that they can expect Service Level Agreements (SLAs) to be produced as soon as is practically possible.

STORMS will be implemented in two phases:

Phase 1 was the tree survey (from 01.04.04 to 31.08.11) involving the collection of baseline information through an initial survey of the tree resource. The survey identified 29,772 individual trees, 1314 groups containing 25,868 trees, 1,589 metres of informal hedges and 287 hectares of woodland.

Phase 2 (after 31.08.11) is the normal running of STORMS as revised. It is envisaged that by this time the initial peak in emergency, urgent and planned red works will reduce. This will allow more resources to be used to deal with good neighbour type issues of the planned amber and green works, in line with the current Traffic Light Trees policy.

The future success of STORMS will largely be dependant on the establishment of a unified City Treecare Budget, which will be subject to operational review to ensure that ongoing risks are matched by appropriate resources.

6.0 Risk zone maps

To prioritise the initial tree inspections the city has been divided into tree risk zones, ranging from zones where city trees pose a very high level of risk to public safety to zones associated with low public safety risks. Each zone will then be inspected on a defined schedule, based on the level of risk posed to public safety. For example, very high risk zones are to be scheduled to receive priority for inspection and to be surveyed within one year and thereafter on an annual basis.

The level of risk posed to public safety is based on risk criteria that assess roadway characteristics (type, traffic volume and congestion patterns) public use and occupancy patterns (high, moderate and low) within public areas, location factors such as shopping centres and public buildings and, exceptionally, tree resource characteristics based on tree age and density. For example, high–useage parks and playgrounds will always be considered very high-risk zones based on high public use patterns and the presence of relatively large tree populations.

Criteria to define city trees risk zones

1. **Roadway characteristics** – prioritise according to key public safety issues such as emergency accessibility and traffic volume. Top priority areas include:
   - Emergency access routes
   - Congested junctions
   - Major roads
   - Railway lines

2. **Public use and occupancy patterns** - prioritise according to importance to public safety and public useage. Top priority areas include:
   - Schools
   - Playgrounds
   - Emergency & medical facilities
   - Extensively used public area and buildings

NOTE:

Tree resource characteristics – will be used as an exception, where trees are found to have a higher hazard potential than their risk zone suggests.. Top priority trees include:
   - Old and veteran trees.
   - Very large single specimen trees in a low risk area
   - High density of "problem" species, e.g. elms, willows.

Guidance on when trees need to be inspected?

A key component of STORMS is the requirement for all accessible trees to be inspected on a regular basis. The Trunk Road Maintenance Manual, used by Highway Authorities recommends a 5 year maximum period between tree inspections by a competent arboriculturalist as a guide.

The attached Risk Zone Map shown on page 11 is a typical example of an area within Southampton based on the following categories.

Area Risk Zone Categories

Based on the above criteria a colour-coded map of the city will be developed to show the designated area risk zone categories. The maps are to be used to establish inspection schedules and in conjunction with the details of the inspection will determine the date for re-inspection. The zones will be kept flexible to allow for modifications and all changes will be explained and documented. The surveying intervals have been assigned using existing models and parameters.

Risk Zone Categories	Colour Codes	Examples
High Risk	Brown	To be surveyed with a detailed inspection within 2 years[1] Schools (high usage areas)[2] Playgrounds and play areas Arterial road traffic routes and pedestrian pathways (A & B roads and motorways)[3] High-use areas in parks[4] Emergency facilities, i.e. hospitals, fire stations and ambulance stations. SCC trees near Railway lines. Top priority trees in a lower risk area.
Medium Risk	Yellow	To be surveyed with a detailed inspection within 5 years[1] Shopping centres Cemeteries (high use areas) Bus routes Public car parks Schools (low-use areas)[6] Public buildings and community centres Preferred emergency access routes[5] Work depots
Low Risk	Blue	To be surveyed with a formal inspection within 5 years [1] Secondary roads (C roads) and footpaths[3] Residential OAP homes Cemeteries (low use areas) Residential car parks Low-use areas in parks. Greenways and woodlands[7] Allotments Low use roads[3] Other open spaces Council housing gardens and cutways.

Notes:

1.   For inspections by a City Council tree officer
2.   School playgrounds, congregation areas, entrances/exits and outdoor classrooms.
3.   Based on DETR road classification scheme and perceived public useage.
4.   Central Parks, Queens Park and Mayflower Park and perceived high- use areas in other city parks.
5.   As defined by Hampshire Emergency Service.
6.   Other school areas outside those defined in item 2.
7.   Only edge trees with unimpeded fall.
.
The Risk Zone map will be subject to regular ongoing review based to ascertain accuracy and appropriateness of the zones and modifications explained and recorded.

Sample section of the Southampton Tree Risk Zone Map

7.0   Formulating a tree hazard assessment

The purpose of tree inspections in a specified risk zone is to detect defective trees, assess the severity of the defects and recommend corrective actions before tree failure occurs. The tree hazard assessment will assist in quantifying the level of risk posed to public safety and in prioritising remedial action.

It is proposed that this method only needs to be used where an obvious defect has been found, in a high, moderate or low risk area, which makes the tree a higher risk than its designated Risk Zone. Remedial works will reduce the risk to a level commensurate to its Risk Zone[1].

The proposed tree hazard assessment has been developed using the International Society Of Arboriculture model; this determines the level of risk based on three criteria:-

1.Failure Potential
Identifies the most likely failure and rates the likelihood that the structural defects(s) will result in failure within the inspection period designated by the trees risk zone rating. The failure potential is recorded as a score from 1 to 64 with increasing likelihood of failure.

1. Individual Target Rating
Rates the use and occupancy of the area that would be struck by the defective part and is given a score from 1 to 4 with increasing use of target area, as determined by its risk zone. This may be modified by local conditions, such as the presence of bus stops, public seating etc.

2.Size of Defective Part
Rates the size of the part most likely to fail. The size of the part affects the severity of potential failure and its score ranging from 1 to 4.

The points in each category are multiplied together to obtain the overall hazard rating.

Failure score x Target score x Defective Part score = **Hazard Rating**

1 see also note on Tree Resource Characteristics – section 6

Any remedial action on a tree with a High Hazard Rating will be partially dependent on the amenity value of the tree. For example, an oak with basal cavity but hidden from the public view could be felled to remove the hazard, whilst a prominent oak in West Park with a similar defect would merit more detailed investigation with specialised equipment and remedial surgery so that it could be retained as long as possible. In such situation the decision as to which option to follow is dependant on the Tree Officers local knowledge on how important the tree is as an amenity feature. Whilst this appears to be subjective method it is in reality the only practical option.

The proposal in STORMS is that only includes those trees greater than 150mm in diameter (measured at 1.3 metres above ground level) in their hazard assessments. This is based on research in the USA from documented tree failures that found that most failures occur in trees greater than 150mm in diameter (Diameter at Breast Height).

Where trees are in woodlands or groups only trees along the edges of woodlands or adjacent to recognised path systems within wooded areas and groups will be surveyed

Tree Hazard Assessment System

Failure potential

Score	Actual	Probability of failure	Example defects
64		Definite/Imminent	Uprooted / Uprooting trees, unimpeded hanging branches, splitting stem/branches.
3		Probable/soon	Severe included bark, decay fungus, large cavities and/or areas of decay, large cankers, other hanging branches, recent root loss, fragile deadwood.
2		Likely/potential	Dieback, overweight/subsiding limbs, lion-tailed limbs, recent exposure of tree, lapsed pollard, early stages of included bark.
1		Unlikely	Tree free of or with minor defects

Individual Target Rating

Score	Actual	Value	Target examples
4		Very High Risk Area	Constant traffic, congested junctions, busy pavement, playgrounds & buildings in 24-hour use.
3		High Risk Area	Peak time traffic, frequent use, day-use office buildings, bus stops.
2		Medium Risk Area	Occasional traffic, sporadic use, garages, walls & garden features.
1		Low Risk Area	Infrequent, hardly ever used, grass areas.

Size of defective part

Score	Actual	Size of tree/branch (Approximate[1])	Degree of harm
4		>500mm dia.	Major structural damage, vehicles crushed. Serious personal injury/death.
3		100-500mm dia.	Minor structural damage, vehicles severely damaged. Major personal injury
2		25-100mm dia.	Minor personal injury, minor damage
1		<25mm dia.	Fragile objects destroyed

Note: 1 – size of defect is based on visual appearance from ground level.

Failure score…….X Target score…….X Defective Part score =

Response

Score	Actual	Action required within
64+		Emergency (within 2 hours)
48		Urgent (within 2 weeks)
36		
32		Planned Red (within 12 weeks)
27		
24		Planned Amber (within 6 months)
18		
1-16		No health and safety works though possible planned green.

Note: Any foreign objects within a tree that can be considered a hazard, e.g. ropes swings and tree houses, will be treated as urgent

8.0 Training

STORMS will require new ways of working and will be dependant on the level of training of all relevant staff and recruited personnel involved in delivering the service. A training programme will be produced for all aspects of STORMS related training and records kept of the progress towards implementing the training plan. Parameters will be set for each level of inspection and who will undertake that level of inspection, e.g. trained arboricultural staff, volunteers, highway inspectors, Neighbourhood wardens and frontline open spaces team staff. The annual training plan will include a log of all those involved in delivering the service.

The detailed and formal inspections will only be carried out by qualified arboricultural personnel and prioritised by the Risk Zones. All personnel shall hold a minimum NCH (Arboriculture) qualification or equivalent and those primarily involved in the inspections will hold the LANTRA Professional Tree Inspection qualification.

An accredited in-house training programme will be offered, when time permits, to other staff that readily encounter or deal with trees, e.g. Highway Inspectors, Open Spaces Area Co-ordinators / frontline staff and Neighbourhood Wardens.

This training will aim to familiarise them with spotting <u>obvious</u> tree defects to enable them to identify actual or potentially hazardous trees and bring them to the attention of the Tree Unit.

9.0 Recording

An industry consultant has found that the biggest failing in cases investigated has been the failure to produce detailed written records. In any investigation all records related to a tree would need to be produced as evidence. At the centre of STORMS is an electronic database linked to a geographical information storage and retrieval package to secure hold all the relevant information concerning the cities tree management and maintenance. STORMS also requires that all tree inspections are recorded even if no works are specified.

It is vital that records are properly maintained including:-
* Site visits.
* Details of inspections (name of inspector, recommendations etc).
* Dates of inspection
* Work history (works recommended, what work was actually undertaken, when and by whom)
* Training records (who attended what training)
* Customer complaints (action taken by whom and when)
Public enquiries (action taken by whom and when)

STORMS ensures that each tree or group of trees has a detailed history file. As a result specific information concerning individual trees can be retrieved if required. Where failures have occurred previously then factual statements must be available, supported where possible by photographic evidence.

10.0   Review

STORMS introduces a proactive review system to evaluate the effectiveness of the policy in improving public safety and reducing the number of reported cases of personal injury or property damage. An annual review will cover all aspects of the management system to ensure that the parameters of STORMS are being followed and continue to meet the needs and objectives of the system as a whole. The following will be the basis of a regular review process: -

- Performance criteria are being met with, as measured against the performance indicators.

- Benchmarking with other Local Authorities, e.g. through the Coastal Authorities Benchmarking Group and Hampshire Tree Officers Forum.

- Consultation with other national bodies, such as the Arboricultural Association and the International Society of Arboriculture.

- Introduction of a regular (5 year) audit. Identified shortcomings analysed and corrected within a given period of time

11.0   Failure Log

Recording of any failure is an essential feature of the whole system. Failures should help inform estimation of real risk levels and produce patterns providing base data about potential tree failure and possible preventative / corrective actions.

Failure data will be correlated and analysed to help future priority setting and inform management strategy. This information will be available to the industry providing national data to assist in future planning issues.

The log will record:-
- Species.
- Age class.
- Location.
- Type of failure.
- Contributing factors/observations.
- Action taken following failure

A summary of the failure log will be presented to the Open Spaces Management team on an annual basis to ensure that appropriate responses/actions are being taken to address and reduce any emerging risks to the safety of the public identified through STORMS.

12.0   Dangerous trees on private land

Trees on private land within falling distance of a highway can also present a danger to the general public. Local authorities have been given government advice within the Circulars and the Trunks Road Maintenance manual advising that they have a responsibility to inspect private trees that could interfere with the highway. However, as this is a responsibility and not a duty it is unlikely that a local authority will be found negligent where it is unaware of a danger posed by a "Highway" tree in private ownership. The primary duty of care with such trees, under the Occupiers Liability Act, is with tree owner.

Where necessary local authorities do have the power to make privately owned trees safe where there is a potential risk to the public (highway users or neighbouring properties.) Initially, action to remove identified dangerous private trees will be in the form of a formal notification to the owner giving them a prescribed period of time to make the tree safe.

If within that period of time no action is taken by the owner then SCC is enabled to take remedial action and recover the costs from the tree owner. The Acts that enable this action are:-
- Highways Act
- Local Government (Miscellaneous Provisions) Act.

Dangerous trees that threaten the highway will be referred to the authority's Highways section whilst dangerous trees that do not threaten the highway will be dealt with by the Tree Team.

Personnel carrying out inspections of SCC trees will be told to note any hazardous trees on private land, that can be seen from outside of the property, thereby reducing the risk to the general public.

Full auditable records will be kept of hazardous private trees and the actions taken to abate the risk

Frequently asked questions

	Question	Response
1	What do I do if there is a tree/branch blocking the road or pavement?	Contact the Tree Unit on 8083 2213 with precise details. Such emergency works will be attended to within 2 hours. Note that the Council will seek to recover costs from private tree owners.
2	I have noticed a hanging branch that could fall at anytime and hurt someone, who do I contact?	Contact the Tree Unit giving precise details as to the location of the problem. The branch should be removed within 2 hours.
3	What do I do if a tree branch is damaging or about to damage my property or telephone line?	Contact the Tree Unit with details. An officer will visit to assess the problem. Normally, such works are dealt with within 12 weeks.
4	I think a Council tree is causing my property to subside, who do I contact?	Contact your building insurance company as soon as you suspect any form of damage to your property.
5	There are low tree branches over the pavement, who do I contact?	Contact the Tree Unit with details. Such work is dealt with within 12 weeks.
6	Children have placed a tree house/rope swings in a tree, can you remove them?	Yes, if the trees are on Council land. Contact the Tree Unit. Such work is treated as urgent and the tree house/rope swing will be removed as soon as possible.
7	My neighbour's tree(s) looks dangerous, what do I do?	You should inform your neighbour of the problem. If they fail to take action notify the Tree Unit of the problem at the address below.
8	How do I find out more about Traffic Light Trees	A leaflet explaining Traffic Light is available from the Tree Unit.

Feedback:

The Open Spaces team are committed to helping provide a sustainable tree resource that is as safe and diverse as possible. If you have any comments about STORMS operating principles and standards please let us know your views by contacting us on 023 8083 3005 or email trees@southampton.gov.uk