



Tree Safety Management at Hatfield Forest





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Mandatory requirements

- Usage zones and a written rationale must be established for all properties
- Inspection of all trees must be carried out at the frequency assigned to the relevant usage zone
- Inspections must be carried out by persons with appropriate training and expertise
- Where hazards are identified, the risk must be assessed to determine what remedial action is necessary
- Remedial action must be taken within agreed priorities, where the individual tree risk assessment concludes that this is necessary
- Provision must be made in property budgets and staff work schedules for tree inspection programmes and necessary remedial action
- Records of inspection, remedial work and staff training must be kept



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Usage Zones

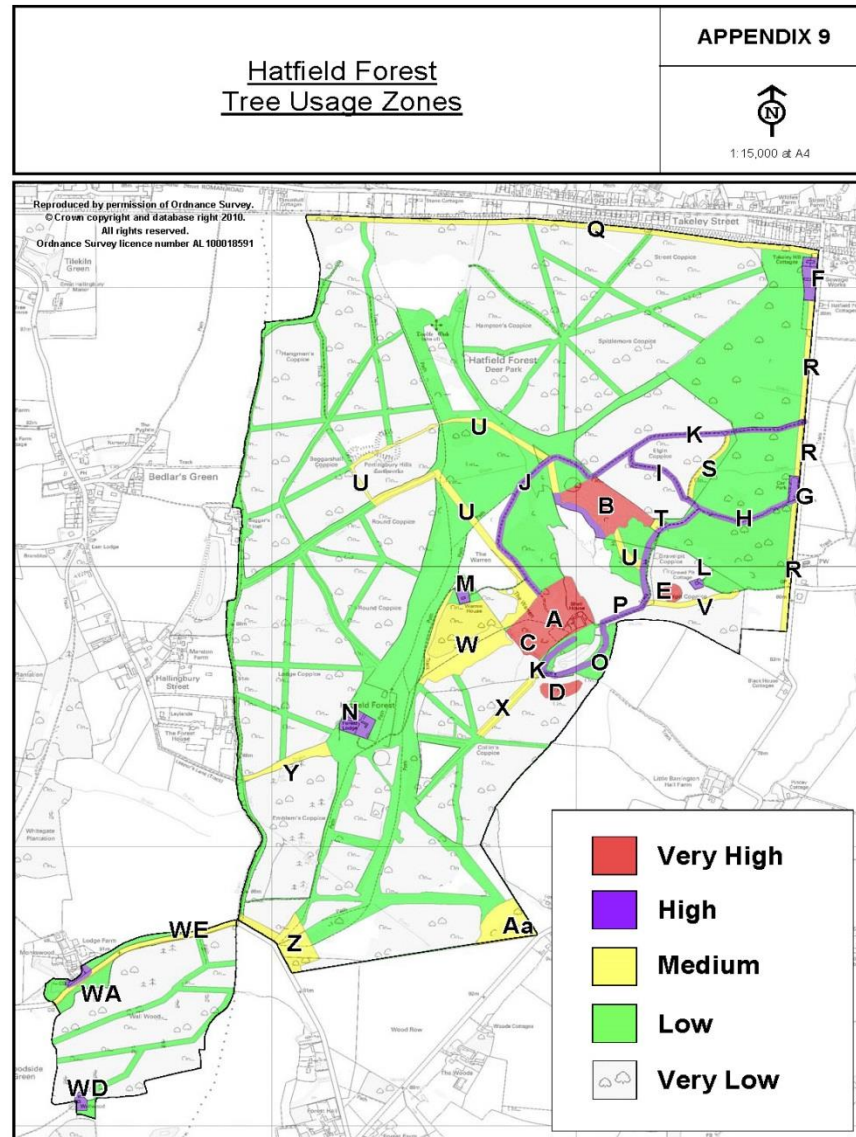
5-zone system from Very Low to Very High Usage.

They:

- Are based on local knowledge and must only be designated by property staff and signed off by General Manager
- Are an informed judgement rather than precise measurement of visitor numbers or traffic levels
- Take account of different levels of use and types of activity
- Reflect the numbers of people that use a particular area and the time they spend in that area
- Take account of the value of buildings, structures and property
- Reflect the usage of adjoining properties/roads
- Should be mapped and the rationale for their selection clearly documented
- Must be reviewed bi-annually and decisions in zone changes recorded



The Hatfield Forest Map



Zones and rationales – review every two years

HATFIELD FOREST USAGE ZONES			
USAGE ZONE	AREA CODE	AREA DESCRIPTION	SURVEY INTERVAL
Very High (Pink)	A	Lake Area including Shell House Car Park / Dog Free Zone	Annual or with retained trees / after severe weather events
	B	Elgins Car Park	
	C	Collins Scrub Education Area Adjacent to Shell House Car Park	
	D	Collins Coppice Education Area Adjacent to Decoy Lake	
	E	Gravelpit Coppice Education Area	
Rationale: Areas very heavily used by residents and visitors at any time to park and gather in seating areas.			
High (Orange)	F	Estate Yard / 1&2 Takeley Hill Cottage Gardens	Annual (Two years interval maximum permissible) or with retained trees / after severe weather events
	G	Entrance Car Park	
	H	Entrance Road to Elgins Coppice	
	I	Entrance Road through Elgins Coppice	
	J	Entrance Road from Elgins Coppice to Lake Area	
	K	Exit Road	
	L	Gravelpit Cottage Garden	
	M	Warren House Garden	
	N	Forest Lodge Garden	
	O	Decoy Lake Perimeter Path	
	P	Dam and Boardwalk	
Rationale: High level of road traffic or visitor use, both moving and stationary.			
Medium (Yellow)	Q	Northern Boundary adjacent to Flitch Way	3 Years or with retained trees / after severe weather events
	R	Bush End Roadside	
	S	Elgins Cut Road	
	T	Elgins Car Park to Board Walk	
	U	Nature Trail Sections other than Sections A&M	
	V	Gravelpit Coppice Footpath	
	W	Warren Chestnuts and Cedar Ride	
	X	Wide Ride from Shell House Car Park SW corner to Collins Intersection	
	Y	Leapers Lane Ride	
	Z	South Gate Roadside and Delta	
	Aa	Doodle Oak Gate Roadside and Delta	
Rationale: Moderate level of road traffic or visitor use, both moving and stationary.			



Frequency of Inspections

Usage zone	Frequency of inspection	Inspection type
1 Very high	Normally annually and after severe weather events*	Formal inspection of every tree for defects binoculars, tapping mallet and probe required to be available for use. ☐
2 High	Normally two years and after severe weather events*	Formal inspection of every tree for defects binoculars, tapping mallet and probe required to be available for use ☐
3 Medium	Normally every three years (with discretion up to 5 years) and after severe weather events*	Walk by inspection of every tree looking for obvious defects
4 Low	During normal routine visits	Informal observation and awareness of the general condition of trees
5 Very low	No inspection required	No inspection required
Retained trees	At least annually, with additional inspections if appropriate	Formal or detailed inspection, often requiring a higher level of expertise



Retained Trees

Important due to:

- Age
- Species
- Condition
- Wildlife
- Cultural value

vs. location

Inspections are:

- More frequent – 6-monthly
- More detailed
- Appropriate to their importance, location and condition
- Often referred to arb consultant





Inspector Training

‘Inspections must be carried out by persons with appropriate training and expertise...General Managers must ensure that there are sufficient competent staff at each property.’ *Tree Safety Management In the National Trust, 2015.*

- **NT Level 1 course in Tree Inspection**

Trains inspectors to recognise a specific list of hazards, to determine remedial action relating to this list of hazards, to understand the limit of their knowledge, and to ask for further advice whenever they are unsure.

- **NT Level 2 course in Tree Safety Management (TSM)**

Based on LANTRA Professional Tree Inspection Qualification. For experienced Level 1 holders who have responsibility for larger collections of trees or less qualified tree inspectors.

- **In-house Post Storm Inspection training** for unqualified staff and volunteers to undertake visual post-storm surveys where the most physical hazards are easily identified e.g. lifting root plates / leaning tree / hangers / hazard beams. Hazards identified are reported to experienced member of staff to decide on remedial action. Enables more rapid opening after storm closure.



Inspection Process

1. Identify Hazards

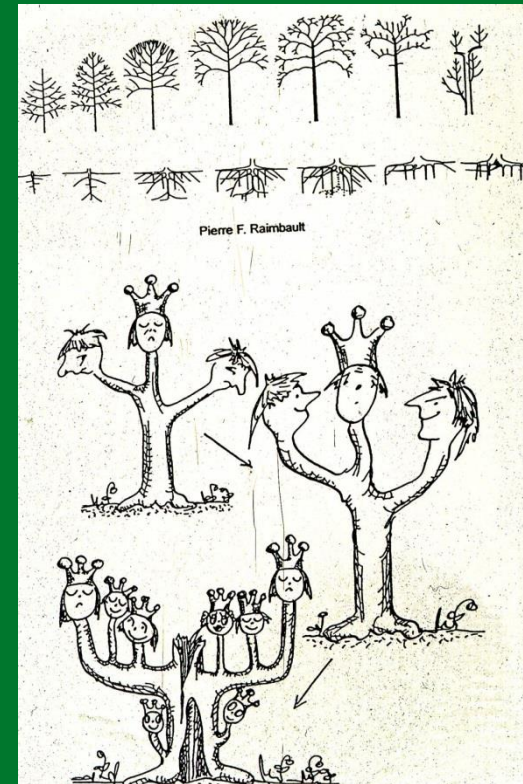
Visual Tree Assessment (VTA) – inspection from ground level normally, with occasional aerial inspections or more in-depth techniques drafted in from consultants.

3-step process: 'Identify, Evaluate & Record'.

2. Assess the Risk

Based on 3 factors:

- **Magnitude of hazard** (considers size and height)
- **Probability of tree failure** (considers species, size, shape, growth characteristics, position & extent of defects)
- **Consequences of tree failure** (considers visitor usage, type and intensity of usage, anticipated direction of tree / limb fall, buildings, contents and structures at risk)





Risk Control

Aim: to reduce or remove tree risk to people with as little negative impact to tree's amenity or wildlife value – and access - as practically possible.

Measures (**afternoon Case Studies**):

- De-risk visitor access, by closure (permanent or temporary), path diversion (**Gravelpit Coppice Fence**), or signage aimed at managing the flow of visitors away from the hazard
- Provide information and promote awareness of hazardous areas or individual trees through leaflets (**Wood Pasture**) or warning signs
- Manage access in adverse weather – High Winds Policy $\geq 45\text{mph}$ property closure
- Eliminate the hazard, through remedial work (**Car Park Zoning**) or felling as a last resort (**Oak Stumps**)



DANGEROUS TREES



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Prioritise Remedial Action

- **Category A: Remedial action must be implemented immediately.** Trees which pose an urgent and significant risk should be dealt with immediately on the best advice available. Public access should be restricted until the work has been completed.
- **Category B:** Remedial action must be prioritised and implemented within 6 months or another specified timeframe. Consider restricting public access until the work has been completed.
- **Category C:** Identified as not being a short-term safety concern, but proactive management may prevent problems developing, will benefit the tree and improve long-term safety.





- [illegible]

- **TSM 4 Retained trees** - all past inspections and management.