



AT2 Tree Surveys

Tree Condition Report for Bingham Town Council

9^h February 2019



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Introduction

This report has been prepared with reference to trees that are the responsibility of Bingham Town Council.

Methodology

The trees were inspected from ground level. The soil was not examined and no samples were taken for analysis. There has been no attempt to assess potential root damage or subsidence potential. The weather was fine and bright.

It would be impractical to inspect every tree in detail, especially in areas of woodland. Instead, the annual review checks for obvious signs of decay or likely failure in the context of the value of any potential target and makes recommendations for appropriate action. Thus, a collapsed tree away from paths and buildings may require no action whilst a dead limb overhanging a path or property may present a significant risk.

Trees are living organisms whose health and condition can change rapidly – best practise recommends that trees are inspected annually.

Trees subject to Statutory Control

Local Planning Authorities may assess trees as beneficial to the wider community in terms of their amenity value. They may protect such trees with a Tree Preservation Order (TPO). Work may still be permitted on protected trees but permission for the works must first be obtained from the LPA.

Some areas are designated conservation areas. Before carrying out works on a tree in a conservation area notice must be given to the LPA. The LPA can either allow the works to proceed or impose a TPO.

Where felling would produce more than five cubic metres of saleable timber a felling license may be required from the Forestry Commission.

Trees and Wildlife

Trees are hosts to nesting birds and animals. It is an offence under the Countryside and Wildlife Act to disturb any nesting bird or bat. Before carrying out any works it is important to ensure that there are no birds or bats in residence.

Implementation of Tree Works

BS 3998: 2010 *Recommendations for Tree work* is the standard by which any contractor should carry out tree work.

Tree Report

Obligations

Under the Occupier's Liability Act (1957 & 1984) land owners have a duty of care to ensure that their trees do not pose an unreasonable risk to people or property. Owners should take preventative action with trees that could reasonably be expected to present a hazard. Trees must not be allowed to cause an "actionable nuisance" which would include branches dislodging tiles or damaging brickwork. Falling leaves are not an actionable nuisance and nor is loss of light except in extreme cases. There is no legal "right to light" so owners have no obligation to prune the trees that may be shading a neighbouring property unless they are hazardous. Neighbours may, at their own expense, cut back trees to their boundary (subject to the statutory constraints of any Conservation areas or Tree Preservation Orders) and the tree owner may choose to allow neighbours to carry out tree surgery beyond their boundary, again, at the neighbours' expense.



Clearance over roads, pavements and street furniture

Trees overhanging roads may be a nuisance to traffic. Crown lifting to around 5.5 metres is sufficient for trucks and buses though in practice, on busy roads the passage of traffic tends to knock off any new growth that might cause an obstruction.

Branches over pavements should be lifted to a clearance of 2.5 metres. Low branches are particularly hazardous for partially sighted pedestrians.

Foliage may need to be target pruned to keep street lights clear and to avoid road signs being obscured.



Dead wood

It is common for trees to have some dead wood in the crown where branches have died back. Dead wood has good habitat value but it can present a hazard to people and property below. In high risk areas such as paths, play areas and property it is recommended that dead wood greater than 25mm in diameter and more than a metre long is removed. In low risk areas it is recommended that dead wood greater than 40mm is removed.

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Stakes and ties on trees

Many of the stakes and ties used to support young trees are still attached many years later. This causes two problems. As the girth of the tree grows the tie becomes embedded and can effectively strangle the tree. Also, when over-staked the tree is not encouraged to become self-supporting and so, when the stake eventually rots away, the tree loses its support and collapses. Trees should typically only be staked for the first two growing seasons. The ties should be flexible and there should be a rubber spacer block between the tree and the stake to prevent chaffing.



Epicormic growth

Trees such as lime and sycamore can produce bushy epicormic growth around the trunk. This does no harm but it gives a cluttered appearance and may be considered unsightly. The young growth can be safely removed to leave a clear stem. This is often carried out in conjunction with crown lifting where lower branches are pruned to raise the canopy. "Crown cleaning" is a term used for a combination of dead wooding and removal of cluttered growth.



Ivy

Ivy has many habitat benefits for wildlife but its presence in trees can have disadvantages. It can outcompete and overshadow weaker trees – this is common in older hawthorns. Whilst it doesn't take anything directly from the tree it does use the tree for support. Large growths can be very heavy and will increase the sail area which can lead to failure in strong winds. Ivy may also obscure other problems such as fungal brackets or areas of decay. In low risk areas it may be beneficial to retain ivy for its habitat value but in higher risk areas it should be carefully cut to leave a clear section of trunk and allowed to die back ("ringed"). Care should be taken not to cut the bark of the tree resulting in damage to the cambium layer below.



Tree Preservations Orders and Conservation areas

Bingham has a conservation area so borough council permission will be required to carry out tree works.

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Recommendations

This report identifies potential works to trees in the different communal areas. Each item has a priority (Low, Medium, High) reflecting the urgency for the work to be carried out.

- High - usually unsafe trees or branches that should be cordoned off until the works can be carried out e.g. severe fungal decay that might lead to imminent failure.
- Medium - trees with a significant fault that, if not addressed, could damage persons or property within the next 6 - 12 months.
- Low - everything else. This usually includes preventative maintenance - removing deadwood before it decays and falls out of the tree; cutting back branches before they cause damage to a property; maintaining clearance over pavements and roads.

The locations refer to the plan in Appendix A.

Cemetery







Key to tree locations at cemetery



Ref.	Tree species	Works	Priority
1	Beech	<p>Large mature tree overhangs neighbouring properties. Tree has rotten fungal brackets around base that are likely to be <i>meripilus giganteus</i> (giant polypore) – see Appendix C. The canopy of the tree appears healthy but this is not a good indicator of the condition of the roots which may be weakened.</p> <p>The tree will need to be dismantled which will be complex given the proximity of gravestones below and the adjacent properties. The main stem could be retained as standing deadwood for habitat.</p>	M



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Ref.	Tree species	Works	Priority	
				Decaying fungal brackets 
2	Cedar	Remove broken branches	L	
3	Lime	Remove deadwood > 25mm in diameter and more than 1 metre in length.	L	
4	Beech x 2	Remove deadwood > 40mm in diameter and more than 1 metre in length.	L	

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Ref.	Tree species	Works	Priority	
5	Ash	Inonotus hispidus fungal brackets in three places may lead to failure - see Appendix C. This tree is close to The Banks road and should be removed.	M	
6	Red oak	Overhangs The Banks. Remove deadwood > 25mm in diameter and more than 1 metre in length.	L	
7	Red oak	Bracket fungus in old wound (Polyporus squamosus/Dryad's saddle? - see Appendix C). Decay is likely to be localised but condition of tree should be regularly reviewed.	L	
8	Beech	Remove deadwood > 40mm in diameter and more than 1 metre in length.	L	

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Soundbund

Ref.	Tree species	Works	Priority	
9	Various	Flytipping. There are several places where branches and garden waste have been cut and tipped. Neighbours may cut back overhanging branches but it is their responsibility to dispose of the arisings.	L	 
10	Cherry between Milburn Grove and Rothbury Grove	Crown lift over pavement	L	
11	Various	The shrubs on either side of the path are encroaching more each year. The borders of the path should be flailed annually to constrain growth.	L	

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Wynhill Sports Ground

Ref.	Tree species	Works	Priority
12	Various	On the eastern boundary there are significant areas of cherry and blackthorn suckers together with bramble that have not been mown and left to grow wild. These areas could be flailed and restored with regular mowing.	L



Allotments

No action.

Carnarvon Play Area


No action.

Land between Campion Way and Nottingham Road




No action.

Linear Walk

Ref.	Tree species	Works	Priority
13	Sycamores behind 5 Primrose Bank	Flytipping. Badly cut branches have been dumped. Remedial pruning required on 3 trees to correct poor cutting.	L





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Ref.	Tree species	Works	Priority	
14	Various	"Ring" ivy to reduce wind loading in young trees on boundary with 14 Musters Road.	L	
15	Rowan	Collapsed – remove.	M	
16	Flytipping	The garden in one of the cul-de-sacs off Mill Hill Road has recently been landscaped. The old turf, rubble and garden waste has been tipped down the embankment into the Linear Walk.		

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Tythby Road


Ref.	Tree species	Works	Priority	
17	Beech	<p>Fungal brackets of <i>meripilus giganteus</i> (giant polypore) – see Appendix C were observed in the autumn. Dismantle / fell.</p> <p>Over the years there have been several trees lost from this area. Consideration should be given to planting some replacements so there are some trees for future generations to enjoy.</p>	M	
18	Sycamores x 2	<p>Declining. Deadwood has been removed in the past but the canopies continue to slowly decline and they will need removing within the next 3 years due to their proximity to Tythby Road.</p>	L	

Butt Field Sports Ground

No action.


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Langtry Gardens

Ref.	Tree species	Works	Priority	
19	Various	Replace wooden posts to prevent vehicles parking under trees and compacting the roots.	L	
20	Sycamore	Unscrew and remove bracing strut for station fence before it causes further damage to tree. This has been reported in previous years.	L	

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Churchyard

Ref.	Tree species	Works	Priority	
21	Sycamore on western boundary with footpath to railway crossing.	Remove deadwood > 25mm in diameter and more than 1 metre in length.	L	
22	Horse chestnut	Reduce limbs to north and east overhanging road by up to four metres. Drop-crotch pruning techniques should be used to remove the thicker sections at branch unions leaving the smaller branches to grow on in a natural outline.		

Warners Paddock

The paddock has a large number of trees including many around the perimeter that overhang roads and byways but the position and ownership of boundaries is very unclear. It would be useful to clarify the ownership and liability before a detailed assessment of the trees is made.

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Crow Close

Ref.	Tree species	Works	Priority
23	Elder & hawthorn	Crown to 2.5 lift over pavement along Cogley Lane.	L
24	Willows	There is a group of willows between Crow Close and Oak Avenue where the ownership is unclear. The trees have some dead wood and willows are prone to failure in strong winds so it would be useful to establish ownership liability.	



Wallenfels Play Area

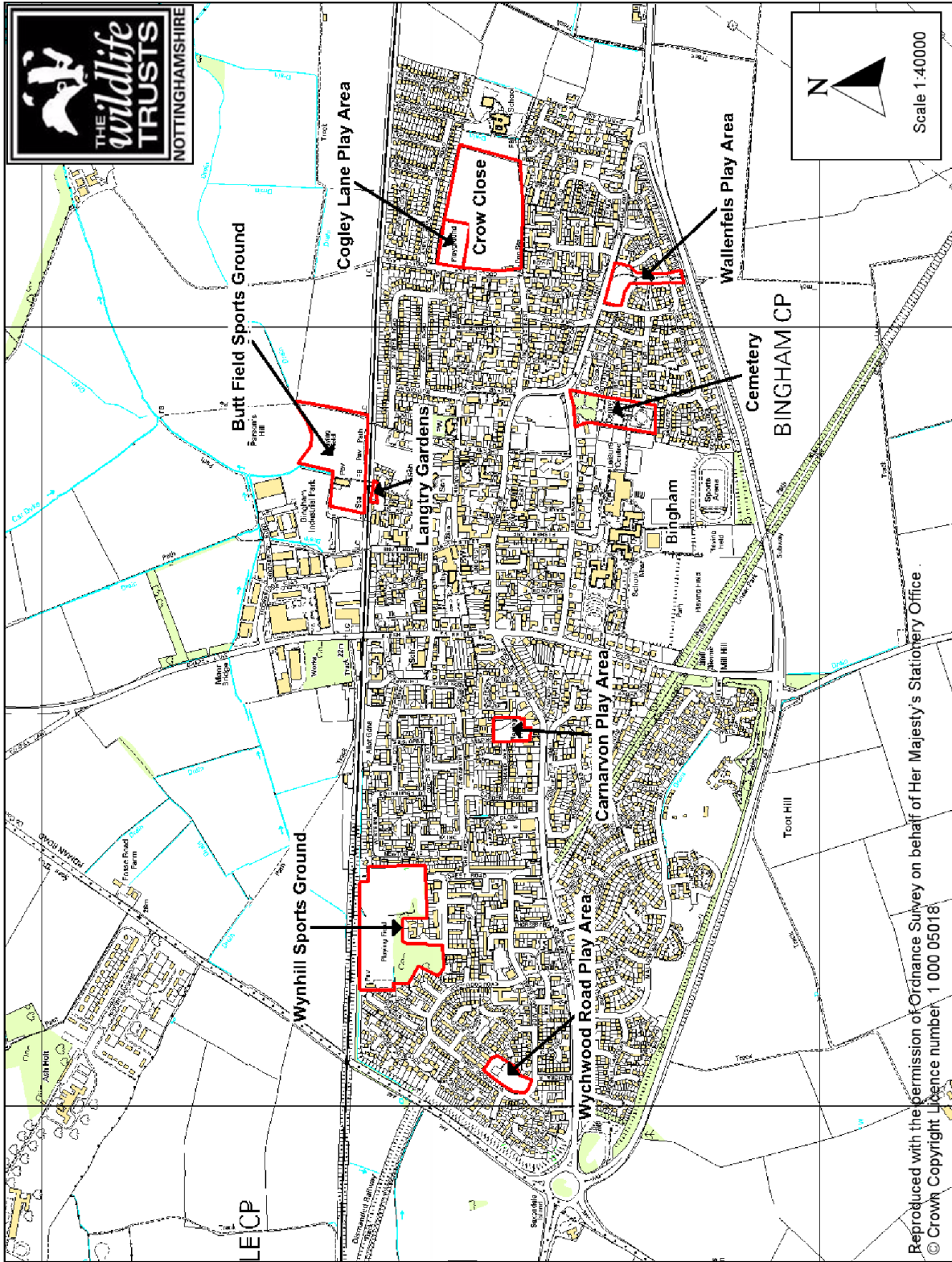
Some coppicing work has been done at Wallenfels together with cutting-and-laying sections of the perimeter hedge. This is a big improvement though the shrubby regrowth will need to be managed to prevent it reverting to its previous condition - regular brush cutting and reseeding.

The frontage onto Mallard Close would benefit from similar management. If nothing is done it is going to get even more out of control. The hedges and shrubs will need to be cut and laid leaving the trees in the same way as the rest of the boundary. In order to retain a green-screen the work could be done in two phases. The boundary is quite wide and so there is the option to create an inner and an outer hedge. For example, the hedge and shrubs along the pavement could be cut and laid in one year whilst leaving those on the field side. A couple of years later when the outer hedge has regrown the inner hedge could be done. That way the residents would retain some screening whilst the shrubs are brought under control.

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Appendix A – Key to locations



Appendix B – Codominant Stems

Codominant stems occur when a tree grows with two or more main stems or 'leaders' that are about the same diameter and emerge from the same location on the main trunk. As the tree grows older the stems remain similar to each other in size without any single one becoming dominant. They are especially common in some species including ash, acer and lime.

Depending how the tree has grown codominant stems can result in an increased risk of failure.



'V' shaped union with included bark

Where the stems have grown in a tight 'V' shape bark may have been trapped in the



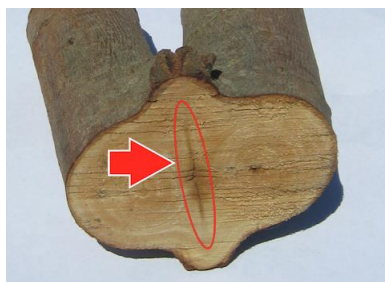
junction in between. The trapped or 'included' bark prevents the tree forming a strong joint between the stems.

'U' shaped union with bark ridge



A more open 'U' shape forms a stronger union with no included bark.

Instead the bark maintains a barrier or crack that weakens the union.



Another example showing a crack formed by included bark



The presence of codominant stems with included bark reduces the strength of the union and therefore increases the risk of failure under loading during strong winds.

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Failed ash tree with two codominant stems.

However, the presence of included bark does not mean the tree will fail. Codominant stems are a common feature of many trees and most will live to the end of their natural life without a problem. The decision whether to take remedial action should take a range of factors into consideration including the size, position and condition of the tree and the proximity of 'targets' close to the tree.

Appendix C – Fungi on Trees



Meripilus giganteus (Giant polypore)

Principal species colonised

Most often on beech in the UK, but occasionally on other broadleaved trees and rarely on conifers.

Area affected

The fungus affects the main root structure of trees and particularly the underside of these roots.

Type of decay

M. giganteus causes a white rot, but with a "soft-rot" phase in the early stages. It has a particular ability to degrade pectin, a substance that helps bind cells together. Decayed wood becomes brittle and liable to fracture both longitudinally and across the grain.

Fruit body

Description Masses of overlapping fronds, arising from a tuber-like fungal mass, appear mainly between buttresses, but sometimes on the soil above decaying roots, even several metres from the base of the tree. Individual fronds are 100–200mm across, but the entire mass can be up to 1m wide. The upper sides are yellowish-brown or chestnut, with a paler margin. The undersides are white and bruise black when gently squeezed, although this may take 15–20 minutes to become apparent.

Season and persistence The fruit bodies are annual and short-lived, sometimes quickly degrading to a black and slimy consistency. In dry conditions, they can persist for a few months. Fresh crops of fruit bodies do not always form every year.

Impact/Effect/Significance

Careful and regular investigation will be required if trees with large fruiting masses of *M. giganteus* are to be retained, since such trees have a relatively high incidence of uprooting. The condition of the crown is not a reliable indication of the extent of weakening of the root system, since some affected trees are uprooted while still showing dense foliage, while others die standing. Also, the condition of the roots near the surface can be deceptive, since the fungus is sometimes confined to the deeper roots. On the other hand, trees can remain reasonably stable if the fungus is confined to the central wood.



© Fungi on Trees – An Arborists Field Guide

Inonotus hispidus (Shaggy polypore, Velvet fungus)

Principal species colonised

Principally ash and plane but also on walnut, apple, Sorbus and sycamore.

Area affected

The upper portions of the trunk, main ascending stems and principal branches.

Type of decay

Simultaneous white-rot with the relative rate of breakdown of cellulose and lignin dependent on host species and the wood cells affected. Heavily lignified cells are relatively resistant. A "soft-rot" phase can occur before white-rot develops. The fungus can also cause canker development by killing a strip of cambium.



Evidence of last year's brackets

Fruit body

Description A fleshy bracket, orangey-brown when fresh, with dark hairs on the upper surface. When dying, the bracket soon darkens, eventually becoming black all over. The attachment point on the bark often remains darkened after the bracket has fallen. Sometimes, the attachment point lies within a sunken strip, where a canker has developed.

Season and persistence The bracket is annual, usually forming in summer or early autumn. Dead, blackened brackets sometimes remain attached for a few months before falling and remaining fairly intact on the ground for several months longer.

Impact/Effect/Significance

Branch snap or break-out often occurs in ash and perhaps other hosts. Plane, however, is more resilient and less liable to fail even when a cavity has formed in the centre of the stem or branch.



Polyporus squamosus (Dryad's saddle, Saddle fungus, Scaly polypore)

Principal species colonised

Common on broadleaved trees, especially sycamore, beech, lime and Horse chestnut.

Area affected

Main stem and principal branches.

Type of decay

White-rot of sapwood or ripewood.



Fruit body

Description A soft, fleshy fan-shaped bracket with a short stem. The upper surface is light brown and with a covering of dark brown scales. The underside is creamy-white.

Season and persistence Annual; appearing in April to December, mostly in late summer, and decomposing quickly.

Impact/Effect/Significance

In many cases the decay is restricted to a relatively small zone associated with a wound. Extensive decay and consequent stem fracture can, however, occur when the fungus has spread into coalescent zones of dysfunctional wood exposed by multiple or massive wounding.

