



Gale Tree Consultancy

Tree Condition Report

Nuthurst Parish Council

September 2020

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Summary

Mannings Heath Recreation Ground

- Horse chestnut trees in various stages of decline due to biotic factors

Jubilee Tree Church Road/Winterpit Lane

- Deadwood with the potential to cause harm located within a tree which has a bench beneath its crown

Memorial Tree Church Road/Lime Kiln Road

- Low branches with the potential to cause harm

Memorial Tree Monks Gate/Brighton Road

- A tree in poor condition caused possibly by external/abiotic factors

Memorial Tree St Andrew's Church Nuthurst Street

- Storm/vehicular damage over carriageway in need of removal

Memorial Tree Nuthurst Road/Copsale Road

- A young tree with a slight mound of earth around the southern basal area

Jubilee Tree Downs Link car park

- Ivy ascending into the high crown increasing the sail and volume of the tree

1.0 Introduction

1.1 Client and Address

- Sarah Hall, Clerk to Nuthurst Parish Council, 107 Morris Drive, Billingshurst, RH14 9ST

1.2 Site Address if Different from the Above

- Mannings Heath Recreation Ground plus various other sites

1.3 Date of Inspection

- 17th September 2020

1.4 Name of Inspector

- Andrew Gale *Dip Arb L6 (ABC) M.Arbor.A*

1.5 Our Reference

- TCR/215/20

1.6 Instructions Received

- I have been instructed by the Clerk to Nuthurst Parish Council to assess any trees with a stem diameter greater than 150mm, when measured at 1.5m, that are growing around the perimeter of the Mannings Heath Recreation Ground plus specific trees located at a further five locations
- I am to provide my findings in the form of a report detailing any remedial work that may be necessary

1.7 Method of Inspection

- All trees inspected were done so using the visual tree assessment (VTA) method described by Mattheck & Breloer (Body Language of Trees, Department of the Environment Research for Amenity Trees publication No. 4 1994)
- A plastic headed mallet was used to sound the stem area as an initial indication of the presence of decay
- A thin steel probe was used, where applicable, to assess the depth and condition of any cavities or concavities between buttress roots
- Where applicable, binoculars were used to assess the upper crown branch structure

1.8 Tree Number and Identification

- All trees requiring further action were tagged with a round, numbered aluminium tag and placed in a prominent position on the stem at approximately 2m – see below:



- Individual trees are given the prefix T and groups G
- Those trees requiring further action are plotted on a site plan which is attached separately
- A number of digital photos were taken, some of which are included within the report for information – please see Appendix 2

2.0 Scope of Report

2.1 Limitations

- Trees are dynamic, living organisms whose health and condition can change rapidly
- The likelihood of failure is considered for three years' from the reports date
- The site has not been checked for any statutory constraints
- The trees were not assessed for wildlife or habitat values which would include birds or bats

3.0 General Description & Results

Mannings Heath Recreation Ground

3.1 General Description

- Mannings Heath Recreation Ground is located off Golding Lane with runs in a north to south direction along its western boundary line
- Along the western area of the recreation ground are a line of Horse chestnut trees in varying states of physiological and structural condition
- To the north of the recreation ground is a strip of mixed woodland that runs from east to west. These border Greens Lane which has properties along its northern side. There is an access drive that serves a further property which overlooks the recreation ground and bisects the strip of woodland
- Along the east boundary fence line is a wooded area with the sports pavilion positioned on the recreation ground. This is accessed via a drive that also serves further properties along the south east aspect of the site
- A fenced playground is located along the southern boundary fence line

3.2 Table of Results

Tree No	Tag No.	Species	Stem Diameter	Height	Crown Spread	Age Class	Phy. Cond.	Comments	Action Required	Priority
1	177	Horse chestnut	551-650	15-20	10-15	SM	GOOD	East buttress root exudation Stem bifurcates c.2m, union appears good Low epicormic growth over access track Deadwood in excess of 25mm in diameter Previously topped	Perform crown lift to achieve a clearance of 3.0m Remove deadwood greater than 25mm in diameter	HS2
2	178	Horse chestnut	451-550	5-10	5-10	SM	POOR	Multiple areas of moribund and flaking bark around the lower stem Reduced in height with declining/dead branch ends	Reduce declining/dead branches back to sound wood but consider its removal	HS1

Tree No	Tag No.	Species	Stem Diameter	Height	Crown Spread	Age Class	Phy. Cond.	Comments	Action Required	Priority
								Horse Chestnut Leaf Blotch (HCLB) Horse Chestnut Leaf Miner (HCLM)		
3	179	Horse chestnut	551-650	10-15	5-10	SM	FAIR	HCLB HCLM Appearance of drought stress Deadwood in excess of 25mm in diameter Low branch growth obscuring streetlight	Remove deadwood greater than 25mm in diameter Prune lower growth to improve streetlight	HS2
4	180	Horse chestnut	551-650	10-15	5-10	SM	FAIR	Vertical strip wound from ground level up to and beyond c.2.5m At c.2.5m 1 x 2m long dead stem section, fungal fruiting body noted Poor growth north east side	Consider removing the dead stem section	N/A
5	181	Horse chestnut	351-450	10-15	5-10	SM	FAIR	Occluding cavity c.1.5m south west side of stem - 21x9x30cm (HxWxD) extending down 42cm Dull tone around the immediate area HCLB HCLM	None at this moment in time However, undertake a detailed decay evaluation employing a Resi microdrill to assess the extent of any lateral decay away from the immediate area of cavity	HS2
6	182	Horse chestnut	351-450	10-15	5-10	SM	FAIR	Moribund bark ground level on south side - 50cm wide 20cm high Declining branch c.3m heading west over road HCLB HCLM Horse Chestnut Bleeding Canker (HCBC)	Remove declining limb over road	HS1

Tree No	Tag No.	Species	Stem Diameter	Height	Crown Spread	Age Class	Phy. Cond.	Comments	Action Required	Priority
7	183	Horse chestnut	351-450	5-10	0 - 5	SM	FAIR	Catastrophic failure resulting in large vertical crack and stem separation Ivy advancing into high crown c.80% Bias north west Unlikely to strike lay-by opposite Pippins	Sever ivy at ground level and again at 1m, removed severed band	HS2
8	184	Pedunculate oak	351-450	10-15	5-10	EM	GOOD	Heavy bias south with low branch structure over recreation ground	Crown lift 2.3m	HS2
9	185	Maritime pine	451-550	25 +	5-10	SM	GOOD	Dead branch in high crown heading north over lay-by	Remove dead branch	HS2
10	186	Pedunculate oak	351-450	10-15	5-10	EM	GOOD	Dead branch c.2.0m heading north over lay-by	Remove dead branch at c.2.0m	HS2
11	187	Pedunculate oak	351-450	10-15	5-10	EM	GOOD	Ivy ascending into high crown	Sever ivy at ground level and again at 1m, removed severed band	HS1
12	188	Common ash	351-450	10-15	5-10	EM	MOD	Early signs of ADB	Monitor and act accordingly	N/A
13	189	Common ash	150-250	10-15	0 - 5	EM	MOD	Early signs of ADB	Monitor and act accordingly	N/A

Jubilee Tree Church Road/Winterpit Lane

3.3 General Description

- The tree is located on a piece of ground at the north of the junction between Church Lane (at the point where it becomes Golding Lane) and Winterpit Lane
- A footpath runs along the north of the tree in an east to west direction. Properties are located to the north of the footpath whose access drives are located to the east of the tree
- A bench is positioned to the west of the tree overlooking the junction

3.4 Table of Results

Tree No	Tag No.	Species	Stem Diameter	Height	Crown Spread	Age Class	Phy. Cond.	Comments	Action Required	Priority
14	190	Red oak	751-850	10-15	10-15	SM	GOOD	Deadwood in crown	Remove deadwood greater than 25mm in diameter	HS2

Memorial Tree Church Road/Lime Kiln Road

3.5 General Description

- The tree is located at the north end of a narrow strip of grass between Church Road and Lime Kiln Road
- A footpath runs along its north side and a bench is positioned beneath the southern crown

3.6 Table of Results

Tree No	Tag No.	Species	Stem Diameter	Height	Crown Spread	Age Class	Phy. Cond.	Comments	Action Required	Priority
15	191	Pedunculate oak	451-550	10-15	10-15	EM	GOOD	Low branching Minor deadwood in crown	Crown lift to 2.0m above ground level by removing subordinate branches only	HS2

Memorial Tree Monks Gate/Brighton Road

3.7 General Description

- The tree is located within the grassed verge on the east side of the A281 Brighton Road with grazing land to its immediate east
- Various telecommunication installations, including a mobile phone mast, are located to the trees south
- To the north of the tree is a bus stop and lay-by

3.8 Table of Results

Tree No	Tag No.	Species	Stem Diameter	Height	Crown Spread	Age Class	Phy. Cond.	Comments	Action Required	Priority
16	192	Red oak	251-350	5-10	0-5	EM	POOR	Declining crown with large diameter deadwood	Remove dead wood and shorten the higher branches to achieve a more balanced crown form	HS2

Memorial Tree St Andrew's Church Nuthurst Street

3.9 General Description

- The tree is located within the north east corner of the church yard, overhanging Nuthurst Street and has a desire line running along its north side
- Positioned beneath the south west aspect of the crown is a bench

3.10 Table of Results

Tree No	Tag No.	Species	Stem Diameter	Height	Crown Spread	Age Class	Phy. Cond.	Comments	Action Required	Priority
17	193	Red oak	651-750	15-20	10-15	M	GOOD	Desire line to north Bench to south beneath crown Stem bifurcates c2.5m into 3 primary stem sections, minor included unions Deadwood and storm/vehicular damage over road	Remove deadwood greater than 25mm in diameter Remove storm damage Crown lift to 5m over road	HS1

Memorial Tree Nuthurst Road/Copsale Road

3.11 General Description

- The tree is located in a piece of ground at the junction with Nuthurst Road/Maplehurst Road to its east and Copsale Road to its east; to its east is a private property

3.12 Table of Results

Tree No	Tag No.	Species	Stem Diameter	Height	Crown Spread	Age Class	Phy. Cond.	Comments	Action Required	Priority
18	194	Norway maple 'Crimson King'	150-250	0-5	0-5	EM	GOOD	Grass around basal area Deadwood less than in 10mm within crown Earth mounded south side	Remove mounded earth and establish a clear area around the basal area of the stem	GM

Jubilee Tree Downs Link car park

3.13 General Description

- The tree is located within a piece of ground to the north west of a small car park that serves the Downs Link
- Its north and east side are fenced with cleft post and rail fencing whilst the south and west are open
- The Downs Link runs to the immediate west of the tree in a north to south direction with hard surfacing within 40cm of the base of the tree

3.14 Table of Results

Tree No	Tag No.	Species	Stem Diameter	Height	Crown Spread	Age Class	Phy. Cond.	Comments	Action Required	Priority
19	195	Bird cherry	150-250	5-10	5-10	EM	FAIR	Minor basal wound ground level west side depth 15mm Multi stem two primary stem sections and one tertiary stem section	Sever ivy at ground level and again at 1m, removed severed band	HS1

Tree No	Tag No.	Species	Stem Diameter	Height	Crown Spread	Age Class	Phy. Cond.	Comments	Action Required	Priority
								Thick ivy restricts a thorough basal assessment Ivy into high crown c.60% Declining branch ends on the north and north west side of the crown		

4.0 Summary of Results

Mannings Heath Recreation Ground

- Horse chestnut trees can suffer from several pathogens which on their own, aren't necessarily damaging, yet combined can cause significant problems
- Horse chestnut leaf miner (HCLM) and Horse chestnut leaf blotch (HCLB) do not kill the tree. However, in advanced cases it can hinder photosynthesis and in doing so increase stress levels which can result in a tree that is more susceptible to secondary pathogens
- Treatment can involve a number of approaches, most notably collecting the leaves and burning them or placing them in sealed bags until the summer of the next year after which the moths would have emerged and died
- Chemical applications are possible but I do not believe this necessary or practicable
- Horse chestnut bleeding canker (HCBC) is a bacterium that first came to prominence in the 2000's. In extreme cases, where the cankering lesions girdle the entire stem, it can cause the failure of the host tree. However, most trees recover from the infection and others appear to be resistant
- Horse chestnut do not have a durable heartwood and as such, any large wounds, whether via pruning or natural causes, are prone to decay forming as the wound wood cannot occlude before the decay process begins
- This is evident in T5/181 where the decay that is forming extends to c.30cm into the stem and 42cm down the stem. Even though the tree is producing wound wood around the cavity, it will never fully occlude and the decay will continue
- Although I do not consider there to be an immediate need for a detailed decay evaluation, it would be wise to determine the extent of any decay that may be migrating away from the initial point of wounding. This can be achieved by using a Resi microdrill and should ideally be undertaken before the next inspection
- Ivy was noted on a number of the trees
- Ivy serves as valuable habitat for wildlife and wherever possible should be retained for this purpose. However, where ivy obscures the main stem, major branch attachment points and the upper crown structure, it can cover anomalies that would otherwise be evident. Ivy will also increase the sail and 'mass' of the crown and in extreme cases can increase the risk of branch failure and where trees are located adjacent to areas of high footfall or vehicular access/movement this can increase the risk of injury or harm occurring
- Where it has been recommended, the ivy should be severed as close to the ground as possible and again at 1m with the severed band being removed. This will allow the ivy ascending into the tree to die off naturally whilst the gap generated will allow any new ivy to be severed if/when it appears

- T12/188 and T13/189 Common ash are both exhibiting moderate symptoms of Ash dieback – please see the Survey Key in Appendix 1 for an explanation
- Ash dieback (ADB) (*Hymenocyphus fraxineus*) inhibits water supply and as such causes leaf loss, lesions on the branches and stems (of younger trees) and ultimately results in the decline of the trees crown
- Younger trees are killed quickly whilst the older, more mature trees, become weakened over time and eventually succumb to another pest or pathogen which ultimately causes death. Some trees show a degree of resistance to the disorder whilst others appear immune

Jubilee Tree Church Road/Winterpit Lane

- Deadwood is a natural phenomenon and as such its presence should not raise alarms bells. However, where large diameter branches decline and die over a short period of time, the causation should be explored to ascertain whether any underlying issue is in effect
- At the time of inspection, I am of the opinion that the deadwood present is not related to an underlying issue and should be removed in the time frame specified

Memorial Tree Church Road/Lime Kiln Road

- The branches are low to the ground and as such pose a risk of eye/head injury and an encumbrance for ground maintenance
- To achieve the desired crown lift, subordinate branches should be removed back to suitable secondary growth in line with BS3998:2010 Tree Work – Recommendations

Memorial Tree Monks Gate/Brighton Road

- The Red oak is in a poor condition with a declining crown and large diameter deadwood noted
- It is unclear why the tree is in such a poor condition but the presence of multiple telecommunication installations so close to the trees rooting area cannot be discounted as a possible cause of root disturbance
- Therefore, in an attempt to establish a more compact crown form, the deadwood should be removed back to sound wood and the remaining declining branches reduced. This may have the desired effect however, if the possible root damage is significant, the tree may decline further

Memorial Tree St Andrew's Church Nuthurst Street

- A small section of storm damage/vehicular damage was noted over the Nuthurst Street and should be removed
- To minimise the risk of vehicular damage, the lower crown over Nuthurst Street, should be lifted to produce a clearance of 5m. This should be achieved by removing subordinate branches back to suitable secondary growth in line with BS3998:2010 Tree Work – Recommendations

Memorial Tree Nuthurst Road/Copsale Road

- The tree is a young planting located within a grassed area. On the south side of the tree, earth appears to have been piled around the basal area resulting in the lack of buttress root development
- The piling of earth around the basal area of trees should be avoided as it restricts the natural development of stem flare and buttress roots, plus it can increase the risk of pathogen colonisation
- The earth should be pulled away from the stem base and ideally, a 1m radius (2m diameter wide) area of grass cleared to help develop a sound rooting system and lower stem structure. This should be kept clear of grass to encourage good tree development

Jubilee Tree Downs Link car park

- See previous comments about ivy

5.0 Recommendations

- Implement the tree work in the time period specified
- Re-assess in three years or sooner should the trees local environment change

Signed:



Andrew Gale *Dip Arb L6 (ABC) M.Arbor.A*



Date: 1st October 2020

Gale Tree Consultancy

Tel: 01798 875731 | Email: office@galetreconsultancy.co.uk | Web: galetreconsultancy.co.uk

Appendix 1

Survey Key

Tree No.	Relates to numbers shown on Tree Survey Plan(s). Positions of trees are plotted using GPS and are generally accurate to within 2 metres. May be prefixed T in the case of individual trees or G in the case of groups of trees																	
Tag No. (where used)	Numbered aluminium tags may be attached to tree stems to aid with identification. In addition, trees may also be identified with red and white hazard tape																	
Species	Common name in English																	
Stem Dia.	Stem diameter in centimetres at 1.5m above ground level or, in the case of multi-stemmed trees, just above the root flare or buttress [ARF]																	
Height	Height assessed visually to within the nearest 5 metre size band e.g. 10 to 15 (i.e. more than 10 but less than 15 metres) or measured using a TruPulse digital clinometer																	
Crown Spread (where used)	Average crown spread, assessed visually to within the nearest 5 metre size band, e.g. 10 to 15 (i.e. more than 10 but less than 15 metres) or measured using a TruPulse digital clinometer																	
Age Class (where used)	Young [Y]	recently planted or established within the last 5 years																
	Semi Mature [SM]	a well-established youngish tree but far from full maturity																
	Early Mature [EM]	long established nearing its full size but not fully mature																
	Mature [M]	fully mature tree that has met its full size																
	Late Mature [LM]	a fully mature tree that has passed its peak; may exhibit areas of decline																
	Veteran [V]	a tree with the physical characteristics of an Ancient tree but is not ancient in years compared to other trees of the same species																
	Ancient [A]	a tree that has past full maturity and is old or aged in comparison to other trees of the same species																
Physiological Condition	<p>In relation to all trees:</p> <table border="0"> <tr> <td>GOOD</td> <td>no significant health problems</td> </tr> <tr> <td>FAIR</td> <td>some symptoms of ill health</td> </tr> <tr> <td>POOR</td> <td>significant symptoms of ill health</td> </tr> <tr> <td>MORIBUND</td> <td>in a serious and irreversible decline</td> </tr> <tr> <td>DEAD</td> <td>not alive</td> </tr> </table> <p>In relation to Ash in light of Ash Dieback:</p> <table border="0"> <tr> <td>MILD</td> <td>100-70% leaf cover remaining = no action at this stage</td> </tr> <tr> <td>MODERATE</td> <td>70-30% leaf cover remaining = start planning for action</td> </tr> <tr> <td>MORIBUND</td> <td>30-0% leaf cover remaining = deal with it before it becomes an issue</td> </tr> </table>		GOOD	no significant health problems	FAIR	some symptoms of ill health	POOR	significant symptoms of ill health	MORIBUND	in a serious and irreversible decline	DEAD	not alive	MILD	100-70% leaf cover remaining = no action at this stage	MODERATE	70-30% leaf cover remaining = start planning for action	MORIBUND	30-0% leaf cover remaining = deal with it before it becomes an issue
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MODERATE	70-30% leaf cover remaining = start planning for action																	
MORIBUND	30-0% leaf cover remaining = deal with it before it becomes an issue																	
Comments	Description of significant features, especially those requiring action or monitoring. Where the presence of ivy is recorded the extent of the tree stem and canopy affected is usually expressed as a percentage																	
Action Required	Specific recommendations for action or monitoring																	
Priority	<p>Work recommended in the interests of health and safety:</p> <p>Urgent: Immediate attention required (will be reported verbally to management on day of inspection)</p> <p>HS1: As soon as is practicable</p> <p>HS2: Works that should be completed within the survey period</p> <p>GM: Works recommended for general maintenance reasons or in the interests of good arboricultural management</p> <p>N/A Not applicable / no work recommended at this time</p>																	

Director: Andrew Gale – Dip Arb L6 (ABC) M.Arbor.A
Registered Office: 34 Carpenters Meadow Pulborough West Sussex RH20 2HQ
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Appendix 2

Site Photos



Mannings Heath Recreation Ground

Horse chestnut trees adjacent to Golding Lane exhibiting various stages of HCLM, HCLB and HCBC



Jubilee Tree Church Road/Winterpit Lane

The deadwood is located predominately within the central area of the tree



Memorial Tree Church Road/Lime Kiln Road

The low crown which could result in eye/head injury

Gale Tree Consultancy

Tel: 01798 875731 | Email: office@galetreeconsultancy.co.uk | Web: galetreeconsultancy.co.uk



Memorial Tree Monks Gate/Brighton Road

Deadwood and declining crown branches are evident – note the telecommunications installation close to the base of the tree



Memorial Tree St Andrew's Church Nuthurst Street

To the east of the tree is Nuthurst Street where a section of small diameter storm/vehicular damage was noted



Memorial Tree Nuthurst Road/Copsale Road

Note the slight mounding of earth to the south of the tree

Achieving good growing conditions for a young tree is essential for its development



Jubilee Tree Downs Link car park

Ivy advancing into the upper crown increasing the sail and volume of the tree