



2018 Veteran and Ancient Tree Survey

Sheep's Green and Coe Fen, Cambridge

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On behalf of

Matthew Magrath

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EXECUTIVE SUMMARY

A total of 67 trees were surveyed, 50 ancient and, or veteran trees and 17 'advanced candidate veteran' trees.

The above 67 trees, are thought to include the 13 veteran trees, including 12 willows and 1 Lombardy Poplar, surveyed in 2004 and identified in *The Coe Fen & Sheep's Green Local Nature Reserve Management plan (2012-21)*.

The analysis indicates a robust population of veteran and ancient trees, with a healthy and numerous cohort of 'premature and advanced candidate veteran' trees for which management to reduce risks of declining vitality and structural failure can produce significantly improved viability.

Key threats to the viability of the trees include structural failure during strong winds, competition from adjacent vegetation, cattle poaching and soil compaction. Recommendations have been made to address these threats.

The survey indicated that the veteran and ancient trees on the site are species rich for epiphytes with a considerable presence of invertebrates in half of the trees surveyed.

With reference to a number of publications, including Sheep's Green and Coe Fen Revised Management 2012-2021; Cambridge Historic Core Appraisal 2016, Draft (Coe Fen and Sheep's Green), the Local Nature Reserve citation and findings of our survey, an overarching Management Objective has been identified for each of the 67 trees. Management Operations are specified to support each tree in terms of their stability, vitality and, or continuity of the habitat provided. In addition, detailed work specifications have been recommended to deliver each trees Management Objective, including for example, continued monitoring, pruning works, competition management, works to improve tree root environments and measures to reduce access beneath trees.



1.0 INTRODUCTION

- 1.0.1 Following provision of a fee proposal on 21st June 2017, an instruction was issued on 30th June 2017 for a Survey of Veteran and Ancient Trees at Sheep's Green and Coe Fen. The survey was carried out between September 2017 and May 2018.
- 1.0.2 The survey uses a specially enhanced adaptation of the English Nature's *Specialist Survey Method (SSM)*. This system was originally designed by Treework Environmental Practice for English Nature (now Natural England) for collecting data on the habitat attributes of veteran trees and is adaptable, having a range of levels of detail of survey information (Levels 1 to 3). Treework Environmental Practice has further developed this system to include scoring systems for the quantities of habitat and associated organisms observed as well as an arboricultural viability assessment and a veteran tree management module. These latter techniques have also been applied to the current survey population of the Veteran and Ancient tree population at Sheep's Green and Coe Fen.
- 1.0.3 Treework Environmental Practice carried out an enhanced SSM Level 2 survey (plus Viability Assessment and Management Plans) of 67 trees, 50 veteran and ancient trees and 17 'Advanced Candidate trees' between September 2017 and May 2018.
- 1.0.4 For all but the 17 Advanced Candidate Veteran trees, the survey used the SSM Level 3 methodology which is designed to record comprehensive specialist veteran tree information. This level includes recording veteran tree habitat and signs of associated / dependant organisms.
- 1.0.5 Use of the enhanced SSM provides a means to assess and comment on tree condition in order to provide management schedules for the surveyed trees in the context of optimising their long-term viability for the benefit of their individual longevity and therefore continuity for their dependant saproxylic habitat.

1.1 The Scope of the Project

- 1.1.1 The survey considered veteran and ancient trees considered to be of highest value as well as a number of 'Advanced Candidate Veteran trees'.
- 1.1.2 The scope of the veteran tree survey and report is to record and present the following information in relation to all surveyed veteran and ancient trees at Sheep's Green and Coe Fen.
- SSM Level 3
 - A tree viability assessment
 - Scoring of veteran tree habitat and signs of associated organisms
 - Individual tree management plans to address both viability and continuity of veteran tree habitat and risk
 - A photographic record of each surveyed tree
 - A GIS overlay showing the location of the trees
- 1.1.3 In addition, 17 Advanced Candidate Veteran Trees' were recorded, for which the following information is provided:
- SSM Level 1 & 2
 - A tree viability assessment
 - Individual tree management plans to address both viability and continuity of veteran tree habitat and risk
 - A photographic record of each surveyed tree
 - A GIS overlay showing the location of the trees



1.2 Inspection Notes

- 1.2.1 The author of this report is Matt Searle, Principal arboricultural consultant at Treework Environmental Practice who, with James Covenant, Surveyor at Treework Environmental Practice, carried out the veteran tree survey based on assessing external features of trees. Data were recorded on site directly into MyTrees, Treework Environmental Practice's tree management database, using a pen-notebook computer.
- 1.2.2 A total of **67 trees** were surveyed. The survey has recorded **6 trees** that were identified as both **Ancient and Veteran**, **31 trees** were **Non Ancient Veterans**, **13 Ancient Trees with Less than 4 Veteran Features** and **17 Advanced Candidate Trees with 3 Veteran Features or less**.

1.3 Limitations

- 1.3.4 Survey limitations are appended to this report.

2.0 THE VETERAN TREE SURVEY METHOD

2.1 Methods Used to Classify Veteran Status

- 2.1.1 The term 'veteran' refers to those trees that display habitat features typically associated with ancient trees. This term includes both ancient trees and trees that display these features prior to the ancient stage (see table 1). It is also used to describe the habitat features themselves (as in 'veteran features').
- 2.1.2 Veteran features are described in detail in the *Veteran Trees Initiative - Specialist Survey Method (SSM)* (Fay & de Berker 1997) and include dead wood, holes, hollowing, bark wounds and rot (see box 1). Broadly speaking the greater the number and extent of these features present in the tree, the greater is the habitat value of the tree for colonising organisms.



Box 1: Criteria for veteran tree identification.

Veteran Tree Identification

Qualifying features: During the site visit trees are inspected and deadwood habitat features are quantified in order to identify trees that qualify as veteran. These features comprise those described by the Specialist Survey Method, including:

Rot holes

These can develop through limb loss and bark wounds and are expanded by microorganisms and invertebrates, and can become occupied by birds and bats.

Rot sites

Wood may be colonised by decay fungi eventually leading to the creation of rot holes (see above). Such sites can then become valuable for saproxylic species.

Dead wood

Dead wood is often colonised by decay fungi. Fallen and attached dead wood may support different suites of colonising species. Extensive dead wood (larger than 20cm in diameter) whether standing or fallen is of value.

Hollowing

Any hollowing in the trunk or major limbs is noted as this indicates long-term progression of decay within the tree.

Fungal fruit bodies

Fruit bodies of fungi known to cause wood decay are significant as evidence of fungal processes.

Split limbs

The process of gradual limb loss starts typically in a small proportion of upward curving limbs when the end weight transmits stress along the longitudinal axis causing fibres to part, buckle and tear (delamination).

Tears

Exposed woody tissue wounds usually elongated in shape, principally torn along (not across) the grain. Tears are associated with the recent shedding of live limb parts and result when attached fibres on the underside resist fracture from the parent stem.

Scars

An aged tear with exposed tissue surrounded with roll of callus.

Live stubs

Stubs are naturally fractured and truncated ends of live stems or branches. A stub is a result of a natural fracture and may follow the process described under splitting.

Trees of any diameter that show 4 **or more** of the above features are recorded as veterans for the purposes of this survey. Such trees are regarded to show habitat characteristics consistent with ancient trees that are thought to be important in terms of biodiversity.

Table 1: The relationship between tree age class, ancient trees and indicators of veteran status

Non-ancient					Ancient		
Germination to Pre-sexual Maturity; Juvenile to Semi-mature: Mature: Fully-mature					Post Fully-maturity Onset of natural crown retrenchment (Fay 2002) Reduction in annual increment volume (White 1998)		
Age Class	Juvenile	Semi-Mature	Mature	Fully Mature	Early Ancient	Mid-Ancient	Late Ancient
Reflects genetic inheritance of tree & its passage through developmental stages of the ageing process (Ontogenetic functioning / Controlled by meristematic tissues)	Seedling to end of first season End of first season to flowering onset. Early adult phase <i>up to</i> escape from loss of apical dominance. Annual-increment volume increases.	Early stage of escape from apical dominance. Onset of natural pruning. Relative increase in annual increment volume stabilises.	Onset of natural pruning. Incipient decline in annual-increment volume. At later stage of Fully Mature: development of <i>branch reiteration</i> (incipient independent branch functioning). <i>Start of retrenchment stage.</i>	<i>Loss of apical dominance. Rounded retrenched crown.</i> Proliferation of deadwood from redundancy. Decline in annual-incremental volume	Proliferation of re-iterative growth. Loss of under-branch vitality. Progressive hollowing in trunk & branches. <i>Longstanding hollowing is a rare and valuable saproxylic habitat.</i>	Outer crown mortality. Adventitious shoot & root growth. <i>Extensive hollowing throughout.</i> Discontinuous circumference. Branch/trunk reiterative growth channelled to root system - can break free (phoenix) from rest of system. Tendency to form multiple trees within parent ancient and to rejuvenation where favourable. Stage ends in decline/death or rejuvenation/phoenix regeneration.	
VETERAN STATUS	Non-veteran		Non-veteran	Elementary (Early) Veteran	Non-veteran	Inter-mediate (Early) Veteran	True (Ancient) Veteran
TRANSITION (Candidate) Veteran	—		—	3 veteran features &/or including Phoenix trees with <i>only regeneration evident</i>	—	3 veteran features &/or including Phoenix trees with <i>only regeneration evident</i>	Likely to have abundant veteran features: i.e. 4 or more veteran features - Trunk hollowing is a key veteran feature potentially contributing rare habitat. - Ancients include trees of known antiquity and - <i>Phoenix trees</i> : <u>either</u> with significant proportion of ancient remnant parent tree in evidence <u>or</u> with evidence of ancient lineage identifiable through growth form (e.g. traceable layering &/or ancient coppice rings etc.).
TRUE (-) Veteran	—		—	3 or more veteran features	—	3 or more veteran features	

Table 1 Continued

Age Class - Veteran Status: The relationship between tree age class, ancient trees and indicators of veteran status.

When assessing and modelling the age structure of a tree population, distinguishing 'elementary' from 'intermediate' veteran trees can contribute to understanding the sustainability of the numbers of trees in older age classes. Transition veterans include trees showing veteran habitat features corresponding to / mimicking those of ancient trees (i.e. at a pre-ancient stage).

For the purpose of this survey, we included a cohort of 17 'Advanced candidate veteran' trees, or 'intermediate (early) veterans'. These trees were in their fully mature life stage and observed to have found 3 veteran features (as detailed in box 1 above).

Ancient tree losses may be significant within a site as a whole or vary within a site. The value of transition veterans is that they contribute to 'bridge habitat' where there may be an age gap between pre-ancient and ancient trees or where the ancient age class is susceptible to significant losses. Given sufficient time and if such trees are viable, transition veterans contribute to saproxylic habitat and species continuity.

The ageing process is sometimes described as 'tree growth from seed to senescence': The term senescence presumes that the process of rejuvenation does not interrupt this ageing sequence with senescence describing a natural stage of physiological decline, the end result of which is death. However, many ancient trees display a range of *phoenix* survival strategies (including adventitious rooting, crown collapse and rooting, and trunk collapse followed by lateral secondary trunk formation etc). Some trees can repeat this process of phoenix regeneration many times giving the opportunity for assemblages of micro-organisms to be carried through many generations of phoenix succession. Trees capable of serial vegetative propagation in this way display a capacity for exceptional life expectancy and, in suitable circumstances, could have the capacity to live forever.

2.2 General Veteran Tree Details (SSM field numbers are bracketed “[]” and Level 2 survey fields are indicated by an asterisk “*”)

Tree Number [1]*

The tree number provides a unique numerical identifier within this site. Trees have not been physically tagged as requested but are identified by number for each tree report, on the associated map and within the master database.

Trees have been numbered from 1 to 70, inclusive. Numbers 23, 25 and 56 were removed from the survey following moderation.

Grid Reference [2]*

The positional data are recorded as twelve figure grid references for all trees. The X-Y coordinates (Easting and Northing) for trees are held in spreadsheet form and may also be accessed through the GIS. The X-Y coordinates are displayed in the individual tree reports.

Species [3]*

Both common and scientific names have been recorded for tree species.

Numbers of all species in the population are shown in Figure 1 below. The main two species present, are Crack Willow (47%) and White Willow (32%). A further 16 trees (27%), could not be positively identified as one of either crack or white willow. Willows will freely hybridise with one another and crack and white willow are known to hybridise, making positive identification sometimes difficult. All four Hawthorn and one of the two poplar recorded were recorded due to their circumference qualifying them as ancient (rather than veteran) trees.

Table 2: Species composition of the total population (live and dead trees)

Species	Quantity
Salix fragilis (Crack Willow)	27
Salix alba (White Willow)	18
Salix sp. (Willow sp.)	16
Crataegus sp. (Hawthorn sp.)	4
Populus nigra 'Italica' (Lomardy Poplar)	2
	67

Dimensions [4], Girth [4.1]* and Measurement Height [4.2]*

The girth of tree stems has generally been measured using a girth tape at 1.3m from ground level. However, old trees often have uneven stems with growths and hollows so that a small difference in measurement height can produce a significantly different girth measurement.

Where it has not been possible to measure girth accurately due to the shape or position of the tree (e.g. stem burrs present, multi-stemmed trees, stumps etc.), the measurement has been taken at the nearest appropriate height and this measurement height has been recorded in the measurement height field.

Where it has not been possible to take any accurate girth measurement (e.g. the tree is collapsed and lying on the ground), then an estimated measurement has been recorded and audited.

Bole Height [4.3]*

Where pollards have been surveyed, the height from the ground to the top of the stem (where a pollard would historically have been cut for cropping wood – i.e. the bolling) is called the bole height.

Number of Stems [5]*

The number of stems was recorded for all trees.

Tree Form [6]*

One of the following Tree Forms was recorded for each surveyed tree and are shown in the Tree Form field.

- 1 Maiden Tree
- 2 Shredded Tree
- 3 Multi-stemmed
- 4 Coppice
- 5 Stored stem
- 6 Bundle Planting
- 7 Natural Pollard
- 8 Managed Pollard / Repollard
- 9 Lapsed Pollard
- 10 Tiered Lapsed Pollard
- 11 Coppard
- 12 Phoenix Regeneration
- 13 Felled stump (< 1m high)
- 14 Shattered/fractured stump (< 4m height)
- 15 Shattered/fractured stump (> 4m height)

Table 3: Tree Form

Tree Form	Count
1 Maiden Tree	16
7 Natural Pollard	1
8 Managed Pollard	32
9 Lapsed Pollard	4
10 Tiered Lapsed Pollard	4
12 Phoenix Regeneration	8



14 Shattered/fractured stump (< 4m height)	1
15 Shattered/fractured stump (> 4m height)	1
	67

Standing / Fallen [7]*

The current position and structural condition of the stem of each surveyed tree was assessed and described in the Standing / Fallen field. The following values are recorded and displayed:

- 1 More or Less upright
- 2 Leaning at a strong angle though apparently firmly rooted
- 3 Leaning with a loosened rootplate
- 4 Collapsed, supported
- 5 Collapsed, main trunk propped clear of ground
- 6 Collapsed, trunk on ground: rootplate intact, attached to ground
- 7 Collapsed, trunk on ground: rootplate intact, detached from ground
- 8 Fractured, collapsed trunk or crown attached to parent tree
- 9 Fractured, collapsed and separated, rootplate attached to ground

Table 4: Standing / Fallen

Standing / Fallen	Count
Standing	59
Collapsed, trunk on ground: rootplate intact, attached to ground	6
Leaning at a strong angle though apparently firmly rooted	1
Fractured, collapsed trunk or crown attached to parent tree	1
	67

Live Growth [8]* and Crown Loss [9]

The assessment of crown loss and the proportion of live growth present in the crown are intended to provide indicators of past trends in tree condition with reference to crown mass and live foliar distribution.

Table 5: The following values have been recorded for Live Growth for each surveyed tree

Code	Live Growth	Count
1	Live growth occupies > 50% of current outline	39
2	Live growth occupies 25%-50% of current crown outline	22
3	Live growth occupies < 25% of current crown outline	6
		67



Table 6: The following values have been recorded for Crown Loss for each surveyed tree

Code	Crown Loss	Count
1	Tree has shed < 25% of likely peak crown framework	7
2	Tree has shed 25%-50% of likely peak crown framework	4
3	Tree has shed 50%-75% of likely peak crown framework	15
4	Tree has shed > 75% of likely peak crown framework	41
		67

Epicormic Growth [10]*

Epicormic growth is twiggy growth derived from a dormant or adventitious bud on a main stem or branch. While epicormic growth can occur as a response to stress or environmental changes, in veteran trees a sustained, strong epicormic presence typically indicates an inherent predisposition of a specimen to readily produce and adopt regenerative or rejuvenation growth. The occurrence of epicormic growth can be a useful reference in an assessment of veteran attributes and can guide identification of candidate veteran trees. An epicormic response, which is expressed as a short-term flush of growth, may, on the other hand, be symptomatic of an unsustainable, physiological reaction to trauma; a short-lived feature, preceding decline.

Table 7: One of the following locations of epicormic growth about the tree have been recorded for each tree

Code	Location of Epicormic Growth	Count
0	None present	22
1	Base	0
2	Stem	12
3	Crown	26
4	Base & Stem	1
5	Base & Crown	1
6	Stem & Crown	5
7	Base, Stem & Crown	0
		67

3.0 EVALUATION OF TREE HABITAT FEATURES

3.0.1 The habitat details that were recorded for each veteran and ancient tree and are provided in the Individual Tree Reports (Appendix II).

3.0.2 Tree data and habitat features are collected using the SSM¹ criteria. The assessment of tree habitats seeks to identify the quality of the deadwood habitat in order to quantify each tree's potential for supporting wildlife. This scoring system is an index of tree biodiversity and provides comparative data for analysis. This requires a count of each habitat type according to the standard SSM and applies to fields **[16] Hollowing of Trunk and Mature Crown, [17] Holes (less than 15cm diameter) in Trunk and Mature Crown, [19] Rot, [20] Deadwood Attached to the Tree and [21] Deadwood Fallen**. It is noted that in applying this system, trees that have a low numerical species presence may show high Individual Habitat Value (as potential habitat for wood-decay organisms). From our experience it appears that trees scoring 9 or above for Habitat may be considered notable habitat features in the local landscape. However it should be emphasised that other qualities or circumstances may render a tree to be an important habitat resource in its own right, (such as the presence of a species scheduled in the Wildlife and Countryside Act 1981)².

Table 8: Summary of Habitat Score

Habitat Score	Count
<9	11
9 – 14	20
15 - 19	16
20+	2
	49

3.0.3 The tree with the highest Habitat Score is T18 with a score of 22.

Bark Condition [11]*

Invertebrates, Birds and mammals can utilise areas of the tree where bark is dead, loose, missing or flaky as habitat. A number of bat species are known to roost beneath loose bark.

One of the following locations have been identified for significant areas about the tree where bark was assessed to be dead, loose, missing or flaky and recorded in the Bark Condition field.

¹ Fay, N. & de Berker, N. (1997). Veteran Trees Initiative Specialist Survey Method. English Nature, Peterborough.
² HMSO (1981). Statutory Instrument No. 878. The Wildlife and Countryside Act 1981 (as amended); Section1.

Table 9: Summary of Bark Condition

Code	Location of Bark Habitat	Count
0	None present	9
1	Base	4
2	Stem	2
3	Crown	7
4	Base & Stem	5
5	Base & Crown	3
6	Stem & Crown	2
7	Base, Stem & Crown	17
		49
	<i>Without value (Candidate and x2 Ancient trees)</i>	18

Bark Fluxes (sap runs) [12]*

Bark exudations mainly provide habitat as well as a food source for invertebrates.

The signs of present or recent bark exudations assessed and the types of bark flux are recorded in up to three Bark Flux fields.

The types of bark flux that are recorded are:

- A Dry
- B Wet
- C Sticky
- D Bubbly
- X Other
- 0 None

Bark flux was recorded on 3 trees (T12, T24 and T31) with dry, wet and wet flux respectively.

Split Limbs [13], Tears, Scars and Lightning Strikes [14] and Live Stubs [15]*

These features are derived from structural failure and wounding and each provides specialist habitats.

The presence of these features is counted for each tree.

Habitat features that are related to recent wounding (Live Stubs and Tears) were identified on 17 trees. 14 trees had Live Stubs and six trees (T8, T11, T13, T15, T26 and T31), had both Tears and Live Stubs.

Split Limbs are often thought of as a relatively rare habitat feature because limbs with splits, often collapse. 16 trees were recorded as having split limbs.

Seven trees (T13, T16, T19, T32, T37, T39 and T41) were recorded to have 2 or more split limbs.

18 trees were identified as having scars.

Table 10: Summary of Scars, Split Limbs and Live Stubs

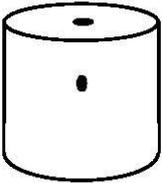
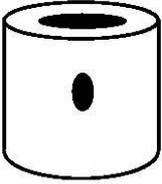
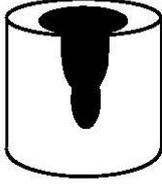
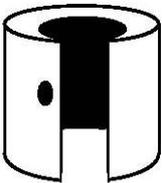
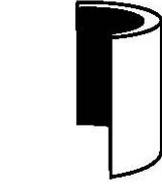
Quantity of Scars	Quantity of Trees	Quantity of Split Limbs	Quantity of Trees	Quantity of Live Stubs	Quantity of Trees
0	30	0	32	0	34
1	13	1	9	1	10
2	3	2	4	2	2
3	2	3	2	3	1
4	0	4	1	4	1

Hollowing [16]

The assessment of trunk hollowing (not including any part of the crown) is in three parts, (base, middle and top), with scores for the level of observed hollowing ranging from 1 to 5 as detailed in the survey codes where 1 represents minor cavities and 5 represents a remnant trunk. This gives an aggregated score range from 3 to 15. For the purpose of habitat scoring this aggregate is averaged and rounded to an integer value.



Table 11: Summary of Stem Hollowing

Stem Hollowing			Quantity of Trees		
			Base	Mid	Top
	1	Apparently solid (cavities <15cm)	17	14	20
	2	Hollow stem (minor holes on 1 or more sides)	8	4	3
	3	Partially solid trunk (cavities >15cm or merging apertures)	7	13	8
	4	Remnant stem (<30% missing)	9	10	12
	5	Remnant stem (>30% missing)	8	8	6

Crown Hollowing [16.4] and Holes [17]

The habitat types are quantified and the following banding system generates the habitat value scores: For both the number of tree holes and the number of crown hollows the scoring system is as follows: none = 0; 1 to 3 = 1; 4 to 6 = 2; 7 to 9 = 3 & 10+ = 4.

Table 12: Summary of Crown Hollowing and Holes

Quantity of Crown Hollows	Quantity of Trees	Quantity of Holes	Quantity of Trees
0	23	0	14
1	14	1	7
2	6	2	4
3	3	3	4
4	0	4	6
5	2	5	2
6	1	6	3
7	0	7	1
8	0	8	0
9	0	9	1
10	0	10	0
>10	0	>10	4

The 4 trees that had more than 10 holes recorded are T1, T12, T18 and T24.

Water Pockets [18]*

Water pockets are counted where present and their quantity is recorded in the Water Pockets field

Two trees, T10 and T12 had water pockets.

Rot [19]

The survey of rot allocates a score of 1 to each rot type and a score of 2 where rot is identified as being significant in extent or type (marked with an asterisk on the recording form). This results in a minimum score of 0 and a maximum score of 6.

The types of rot that are recorded are:

- A Brown
- B White
- C Black, soil-like
- D Other
- 0 None observed

Thirteen trees were recorded as having no rot visible., Brown cubicle rot was recorded as being present on 16 trees with white rot on 20 trees.

Deadwood attached [20], Deadwood fallen [21]

Sections of deadwood attached or fallen are quantified and scores are generated by banding as follows: Number of deadwood units (1 unit = 1 metre of dead wood over 15cms in diameter either attached or fallen): none = 0; 1 to 5 = 1; 6 to 10 = 2; 11 to 15 = 3; >15 = 4.

Table 13: Summary of Deadwood Attached and Fallen

Units of Attached Deadwood	Quantity of Trees	Units of Fallen Deadwood	Quantity of Trees
0	18	0	28
<6	23	<6	15
6 – 10	6	6 – 10	3
11 - 15	2	11 - 15	0
>15	0	>15	3

4.0 EVALUATION OF VETERAN TREE ASSOCIATES

4.0.1 The veteran and ancient tree associate details that were recorded for each tree are provided in the Individual Tree Reports (Appendix II).

Fungi [22], Epiphytes [23], Invertebrates [24], Birds and Mammals [25]

The Quantified Associate score is based on the number of fungi, epiphytes, signs of invertebrates and signs of birds and mammals that were observed to be using the tree at the time of survey. It is limited by the time of year that the survey takes place because the detection of wildlife is often largely dependent on the season (e.g. fungal fruiting bodies are most abundant during the autumn). However in some circumstances this assessment can inform the need for further surveys at the site and highlight trees that are worthy of more a detailed survey.

The assessment is informed by the Specialist Survey Method so that a count of the presence of each associate type quantified by the surveyor. These values are banded accordingly and a score is allocated in the following way: none apparent = 0; occasional presence (1 to 3 species)

= 1; considerable presence (4 to 6 species) = 2; species rich (6 plus species / significant species / extensive presence) = 3. The scores for each associate type are then added together to provide the Quantified Associate Score. The minimum Quantified Associate Score = 0, the maximum Quantified Associate Score =12.

Table 14: Summary of Associate Score

Associate Score	Quantity of trees
0	0
1-3	5
4-6	15
7-9	14
10 +	15

Table 15: Summary of Associate Quantification

Associate value	Quantity of Trees			
	Fungi	Epiphytes	Invertebrates	Birds and Mammals
<i>Non - apparent</i>	32	1	1	0
<i>Occasional presence (1-3 species)</i>	17	26	26	47
<i>Considerable presence (4-6 species)</i>	0	13	24	0
<i>Species Rich (>6 Species/Special species/Extensive)</i>	0	11	0	0

The data shows that the site is species rich for epiphytes with a considerable presence of invertebrates in half of the trees surveyed.

5.0 EXTERNAL FACTORS

Context [26]

The site is situated to the south of the centre of the City of Cambridge, and is bordered by the Lammas Land park and the residential Newnham Croft neighbourhood to the west. To the east the site is bordered by Cambridge University buildings and colleges, The Leys School, and Trumpington Road adjacent to which is the University Botanical Gardens. The River Cam County Wildlife Site flows from south to north through the site.

The site has three main habitats: Pollard Willows; grassland and waterways. In addition, there are limited areas of scrub and woodland.

The presence of the pollarded veteran willows, both along the edge of the waterways that run through the site and in the flood-plain grassland alongside is one of the main reasons for the site being designated as a County Wildlife site.

The Context within which the trees are situated is shown on the plan.

Past Management [27]*

Where evidence of past management has been observed, it has been recorded.

Damage / Threats [28]

Information relating to damage and threats to each tree has been recorded.

Table 16: Summary of Issues that could Impact the Viability of the Surveyed Trees

Condition	Total Prescriptions
Decay / structural defect in crown limb / limbs - Major	5
Climbing plant competition (of lower growth/epicormic development)	33
Adjacent competition/shading	9
Root/soil environment – Poached/Compacted	6
Root/soil environment - Enhance	11

Works and other measures have been recommended to address most of these issues.

Shade [29]*

Table 17: Summary of Overall Levels of Shade Affecting Trees

Code	Shade	Quantity of Trees
0	Un shaded – un shaded at present	21
1	Light Shade - shaded on one or two sides but not from above	38
2	Close Shade - shaded on three or four sides, not from above	6
3	Heavy Shade - shaded from above and one or two sides	2
4	Extensive Shade - shaded from above and all aspects	0

The majority of the survey population (88%) were growing in light shade or no real shade. Eight trees (T18, T20, T27, T29, T47, T48, T65 and T67) were found to be in close, heavy or extensive shade. Recommendations to address shading are included in the ITMPs where appropriate.

6.0 ARBORICULTURAL ASSESSMENT

- 6.0.1 Treework Environmental Practice has continued to develop the *Specialist Survey Method* since 1997 to include advanced modules based on this system as a national standard for surveying and managing ancient trees. The current survey involves the application of Level 5 of the SSM.
- 6.0.2 Level 5 of the SSM is an arboricultural evaluation system used to assess tree vitality and failure potential in order to inform treatment priorities and a management programme. Each tree is assessed in relation to the expectation (estimated probability) of major debilitation or total failure from radical decline in vitality or from collapse (mechanical failure) within an indicative period of 10 to 15 years from the survey date.
- 6.0.3 The arboricultural score is a measure of the condition of the tree with regard to vitality and stability. It is a cumulative score combining evaluations of the current vitality of the tree, the estimated likelihood of tree loss through collapse, and the estimated likelihood of tree loss through physiological decline. It is essentially a measure of the expected viability of the trees over the next 10 to 15 years. It was designed for surveys of large tree populations to assist prioritising prescribed tree works. In this system trees that score 10 or below are considered to have low viability (i.e. there is a high risk of losing these trees within the next 10-15 years). Trees that have scores from 11 to 20 are considered to have a moderate viability (i.e. their risk of failure within the next 10-15 years is considered to be likely to be remediable). Trees with an arboricultural score over 20 are considered to have high viability at the time of inspection.
- 6.0.4 The vitality assessment ranges from 1=Dead, up to 10=exceptional vigour. The decline assessment takes a similar approach to the estimation of the tree falling into radical decline within a period of five years. Decline expectation ranges from 0=Dead, 1=extremely high decline expectation, up to 10=improbable failure. The structural failure/collapse assessment ranges from 0=Dead, 1=extremely high failure expectation, up to 10=improbable failure. These scores are aggregated to identify a quantified arboricultural score in order to inform future management.
- 6.0.5 The vitality assessment takes into account indicators such as crown condition in the light of extension growth; bud size, the incidence of die back and evidence of effective wound wood and epicormic growth. The decline assessment takes into consideration the context, tree species and surrounding environment, indications of physiological stress and recovery, incidence of random or systematic decline and the nature and degree of fungal colonisation.
- 6.0.6 The structural failure/collapse assessment takes into consideration - root, stem and branch stability; wood condition, embrittlement, end loading and expected recovery from failure in the context of tree species and vitality. Also the tree's responses and signs of apparent resilience to past storm damage is also taken into consideration as an indicator of vigour (vital capacity) and current vitality (response to environmental change). These three assessments are combined to provide an overall arboricultural assessment for individual trees, giving a comparative appraisal of the viability of the veteran population on the site.
- 6.0.7 Decline is expected to variably occur in old trees depending on their growing conditions and many of the symptoms of decline contribute to the habitat value of veteran trees. However the range of saproxylic habitats offered by living trees is far greater and more sustainable than



those associated with dead trees. The management of any population of veteran/ancient trees should be targeted to enhance their longevity and continuity. Veteran trees should be monitored for signs of decline from either biotic or abiotic agencies. This should inform future remedial management requirements to improve survival rates.

- 6.0.8 From analysis of factors described above an impression is gained of the vitality of the tree and of its tolerance to stress, wounding, pathogenic attack or competition.
- 6.0.9 Veteran trees offer numerous micro-habitats, however as a general rule standing live trees rather than fallen dead trees offer the richest saproxylic biodiversity. The conservation aims assume that veteran trees wherever feasible are to be maintained alive and standing for as long as possible.
- 6.0.10 One of the most important long-term aims of the management of dead wood ecosystems is to ensure habitat continuity for the associated species. Living old trees with veteran characteristics provide an enormous contribution to the size and variety of dead wood habitats in the landscape. Through the protection of veteran trees' natural communities are allowed to persist and ecosystem functioning may be supported and maintained. The viability assessment aims to identify which trees are at greatest risk of failure, and thereby the implications that this may have for the population as a whole.
- 6.1.0 The following viability values were recorded for the whole population.



Tables 18, 19, 20, 21: Summaries of Viability Assessment

Code	Table 18 Probability of Decline	Quantity of Trees
0	Dead Tree	0
1	Extremely High	0
2	Very High	3
3	High	4
4	Probable	8
5	Moderate to Probable	8
6	Moderate	34
7	Low to Moderate	11
8	Low	7
9	Very Low	0
10	Improbable	0

Code	Table 19 Probability of Collapse	Quantity of Trees
0	Dead Tree	0
1	Extremely High	0
2	Very High	0
3	High	0
4	Probable	5
5	Moderate to Probable	12
6	Moderate	14
7	Low to Moderate	17
8	Low	7
9	Very Low	9
10	Improbable	3

Code	Table 20 Vitality	Quantity of Trees
1	Dead	0
2	Moribund	0
3	Advanced decline	0
4	Low	2
5	Low to moderate	10
6	Moderate	25
7	High to moderate	28
8	High	2
9	Very high	0
10	Exceptionally high	0

Table 21 Arboricultural Score	Quantity of Trees
1	0
2	0
3	0
4	0
5	0
6	0
7	0
8	0
9	0
10	0
11	1
12	0
13	0
14	0
15	7
16	6
17	8
18	9
19	13
20	4
21	7
22	10
23	2
24	0
25	0
26	0
27	0
28	0
29	0
30	0



- 6.0.11 Analysis of the viability score indicates a more-or-less stable population of veteran trees with the majority of the trees (88%) in the 16 to 30 region (top half) of the viability score.
- 6.0.12 The 8 trees with lower viability scores (T22, T24, T27, T31, T34, T36, T47 and T54) have management recommendations to reduce the risk of loss.

7.0 ARBORICULTURAL MANAGEMENT RECOMMENDATIONS

7.1 Veteran Tree Management Works to Support Tree Viability and Habitat Continuity

- 7.1.1 A prioritised Management Schedule is provided in Appendix III. These reports are divided into sections according to the priority of works and are ordered by priority for works. The priority is noted in the header of each page, recommended "Completion Period".
- 7.1.2 All specified management for each tree is also contained in the Individual Tree Management Plan Reports (Appendix II).
- 7.1.3 The Management Schedule has been arranged according to the priority advised for the implementation of each operation. However, each tree may have a range of phased treatments ordered in stages over a number of years. Monitoring and regular re-inspection of trees is essential for the full benefit of the management regime to be realised. Data should be systematically recorded and retained. Subsequent stages of management programmes should take account of the response of veteran trees to previous phases of treatment as well as the condition of the trees at the time and environmental factors (e.g. drought or significant and unusually prolonged waterlogging) that may affect the resilience of the trees; scheduled works may need to be adjusted or postponed in the light of these considerations.
- 7.1.4 The management recommendations made provide prescriptions to improve or maintain structural stability, or to enhance or maintain vitality.

Structural pruning works include cyclical operations to achieve staged reductions, targeted crown height, crown weight or branch reduction.

Prescriptions to enhance or maintain vitality include removing climbing plants (33 trees) thinning / reducing competing trees (9 trees), conditioning of the soil in the root area through applying woodchip mulch (11 trees), restricting access (e.g. by erecting a barrier or growing thorny plants as a barrier) in order to reduce soil compaction (6 trees).

7.2 Inspections

- 7.2.0 Reinspections have been recommended for each tree and prioritised to enable assessment of the condition of trees prior to works commencing (see also 8.1, below) so that, for instance, should a tree not have sufficient vigour to respond positively to pruning the inspection arboricultural consultant can recommend that works are postponed.



7.3 Structure of Recommendations

7.3.1 Management Objectives

A Management Objective is provided for each tree; objectives may not have a time priority as they are intended to provide the context to inform the specification and execution of the Management Operations.

Management Objectives are shown in the Individual Tree Management Reports but are not shown in the Management Schedule.

Management objectives will often be generic (i.e.: Manage as high canopy veteran).

Occasionally management objectives will be more specific (i.e.: Conduct staged reduction to 15m height in 5 operations, phased over 16 years).

7.3.2 Management Operations

Management Operations are specified to support the tree in terms of its stability, vitality and / or continuity of the habitat provided by the tree.

Each operation is given a priority from immediate to 20+ years. The Management Operations are shown in the Individual Tree Management Reports and also in the Management Schedule. In the reports Management Operations are ordered by priority (most urgent first). In the Work Schedule the priority is shown as "To be completed by", followed by the month and year, in the page header.

Management Operations are either once only, phased or cyclical:

- I. **A Once Only Operation** (e.g. "Reduce crown by 1m").
- II. **A Cyclical Operation:** A specification that requires continued, repeated operations to maintain its effect (e.g. Fell - Fell / thin adjacent competition - coppice 30% of hawthorn within 10m & to all aspects of the tree. Frequency of return periods: 4 years. Priority: Within 5 years).
- III. **A Phased Operation:** A specification that might take several operations to complete over several years (e.g. Fell / thin adjacent competition - coppice 20% elder within crown drip line & cut bramble away from tree. Frequency of return periods: 1 year. Work Phase: 4 years. Priority: Immediate).

7.4 Prescribed Tree Management Works

7.4.1 A comprehensive arboricultural management programme has been formulated for each tree in relation to its individual condition and requirements. This programme identifies treatment priorities, sometimes spanning 20 years. Treatment operations that extend over two or more decades reflect the fact that, where heavy reduction might reduce the risk of mechanical failure, the introduction of large wounds (even when applied to small numbers of branches) in old trees is considered to be considerably more detrimental than small reductions in large



numbers of branches. With smaller reductions, the tree retains greater levels of stored energy as well as folia mass which is needed for photosynthesis. Additionally, callus growth can become established more easily on smaller wounds and develop an effective seal in a short period of time. Evidence from work from the Baumstatik group in mainland Europe indicates that relatively small levels of reduction in height can achieve a significant improvement the safety factor in trees (Wessoly & Erb, 1998).

- 7.4.2 The highest priority treatments are scheduled for trees at imminent risk of structural disintegration or accelerated physiological decline.

7.5 Measures Proposed for Tree Stabilisation and Rejuvenation

- 7.5.1 When considering the means to stabilise weight imbalances and mechanical weaknesses the recommendations address the need to reconcile and balance the risks from structural failure with the risk of traumatic physiological response as a consequence of restorative treatment.
- 7.5.2 It is generally accepted that one of the significant values of veteran trees is that they provide a continuity of habitats at varied heights. The aim of retaining as many of these habitats in as stable a condition as possible for as long as possible has informed many of the decisions relating to stabilisation recommendations. Where it is considered favourable to retain high canopy form, recommendations may specify no action being taken at present. However, in order to preserve the canopy at optimum scale minor targeted crown modification may be proposed, particularly where localised weight imbalance or decline are noted.
- 7.5.3 Proposed remediation measures associated with tree surgery methods to enhance veteran tree viability refer to the following:
- I. **Staged restorative reduction** is specified as a method of stabilisation in response to observed decline in vitality or where there is considered to be high risk of tree loss from further decline. Such treatment is in response to the observed vitality of the tree and the measures proposed are intended to have a low level of impact upon the tree, being spread over a planned period of time. Staged restorative reduction refers to arboricultural techniques that have been specifically developed over the past decade (Fay, 2002) for veteran tree management. These involve a pruning approach that mimics the natural ageing process (termed 'retrenchment pruning', guidance on this technique is given below). This technique though novel has entered mainstream arboricultural management both in terms of theoretical principles and in training in the UK. The technique involves targeting low reduction levels (in height and extent) in order not to cause debilitating stress in the tree and to stimulate internal crown growth suitable for the development of a lower more compact and stable crown with shorter transportation distances between root and shoot (Lonsdale, 2013).
 - II. **Critical reparative reduction** is specified where veteran tree stability appears compromised to a very great extent due to a high risk of major structural failure. This is only proposed where observed tree vitality gives grounds to expect recovery from the removal of significant crown foliar mass. In such cases, where structural instability is judged to pose a threat to the viability of the tree, major weight or height reduction may be proposed to specific branches or the entire crown. As this treatment is specified to take place in a single operation it should be noted that this may be attributable to either the extreme nature of the instability or to the



expectation that following a one-off operation there will need to be a period of time before re-inspection determine the type of future treatment.

7.6 Special Restorative Techniques

- 7.6.1 Promotion of internal shoot growth focuses on strategies to invigorate the mid and lower crown through preparatory techniques that redirect growth and energy about the stem, canopy and branch tracery. Other techniques intended to encourage the internal development of new epicormic and adventitious growth within the lower crown include targeted thinning of the crown periphery and adjacent competitive trees.
- 7.6.2 Treatments specifically recommended above involve plant hormone management, pruning out of apical buds (in a similar manner to fruit tree pruning or rejuvenation of mature shrubs), re-allocating the distribution of suppressant hormones intended to stimulate the development of dormant and adventitious buds at lower internal areas within the crown.
- 7.6.3 Tip pruning will generally involve work with secateurs or small turbo-saws systematically progressing throughout the canopy, selecting between 5 and 10 buds for retention to provide the source for future redirected growth. As intervention in the dynamics of epicormic growth may have variable results if undertaken without sensitivity, this procedure requires a selective approach taking care to avoid indiscriminate removal of apical growth.
- 7.6.4 Layering has been observed in old trees of many species on veteran tree sites and appears to be an effective strategy for enhancing longevity. These works include encouraging branches to subside over time by cutting the top and the mounding of soil around very low limbs or limbs that are resting on the ground. These are non-essential works, however the work is intended to enhance tree stability and genetic continuity and it should be considered as an option wherever viable. Large layered limbs can eventually work as a prop or support for the parent tree and eventually become trees of the same genetic stock as the parent.
- 7.6.5 When cutting limbs in order to encourage them to subside onto the ground, it is essential that the size of cut is kept to a minimum in order to retain as much intact cambium and conductive tissue³ as possible. Layering limbs may fail if excessively browsed or disturbed. Therefore it may be essential to the success of any works to establish the layering of limbs that the layered limb is adequately protected by fencing or other means.

7.7 Management of Ancient / Veteran Pollards

- 7.7.1 Veteran trees that have either been reduced to historic pollard points or, through reduction or collapse, have been truncated to a pollard form from which poll growth is generating, can be managed through cyclical poll thinning. This practice is intended to manage the regrowth at a scale that does not threaten the stability of the tree while supporting the photosynthetic capacity of the crown. The length of time between operations will depend on the species, vitality and structural stability of the tree and will, in effect, dictate the maximum age of poll growth. Polls are cut to stubs, this has several benefits over cutting back to the original pollard points, including reduced risk of cambial death/damage in the bolling and creation of aerial deadwood.

³ Tissues within the tree responsible for transportation of nutrients between the roots and the branch tips/leaves and also for incremental growth.



7.7.2 A typical cyclical poll thinning operation would be: Thin 20% of selected poll growth (select oldest, largest, most unstable polls for removal). Leave stubs of 5 - 6 x the diameter of the poll being removed. *The use of habitat creation techniques such as coronet cuts should only be used where feasible, final stub length should always be the primary consideration.*

7.8 Treatment of Trees Affected by Compaction

7.8.1 Particular trees affected by compaction should be assisted by the application of mulch consisting of uncomposted wood chip and leaf mould. Over a few years this will normally restore structural and biological soil conditions suited to the healthy development of tree roots. Compaction decreases diversity and ecological functioning of soil organisms around the tree. Without the relationship with beneficial soil organisms the tree's ability to obtain water and essential elements from the soil is reduced and the weakened tree will likely become vulnerable to pathogens. The mulch should be applied to a depth of 5-10cm around the tree, extending to at least the drip line. Deeper layers should be avoided because excessive use of mulch can induce fermentation, immobilise nutrients, cut off the oxygen supply, and lead to tree death. The mulch layer should *not* be laid in direct contact with the base of the stem as this may cause bark death and subsequently leave the tree susceptible to pathogenic colonisation. The rooting zones of compacted trees may be further protected with thorny 'dead-hedge' halos.

7.8.2 Where it is considered that works to improve the rooting environment of the tree may conflict with other management requirements or obligations of the site, a detailed assessment of the root zone is recommended in order that decisions can be made regarding the appropriate action with more detailed information and in consultation with site staff who will be more aware of restriction and issues that will need to be considered.

7.8.3 The soil within the root zone of many trees is frequently seriously compacted as a result of visitor and animal pressure impacts over time. This damages the soil structure and associated fungal and bacterial activity. Where this is considered to cause a significant negative effect upon tree condition and viability, recommendations are made that are intended to protect the root zone of the tree over a prolonged period. This is generally proposed in conjunction with conditioning the soil with composted mulch; however such protection may be recommended to be kept in place beyond the duration of the soil conditioning. A beneficial practice in circumstances where the root zones of compacted trees require protection is the planting of 'halos' of thorny species such as hawthorn (*Crataegus monogyna*) or dog rose (*Rosa canina*) that act as thorny barriers around the tree. It is understood that such treatment may not be feasible or desirable within the context of other management objectives on the site.

7.8.4 These recommended actions are intended to address the impact of (mainly pedestrian) traffic on the trees. It is understood that these works may not be practicable in the light of cost and other site management objectives. The feasibility of carrying out these recommendations should be assessed for each tree respectively. This assessment should take into account the likely impact on other trees of proposed locations for re-routed rights of way. Where it is considered that movement of a path or track is not a practicable course of action, an alternative method of improving and protecting the root environment of the tree should be adopted.



7.9 Management of Competitive Trees

- 7.9.1 Arboricultural works are specified on adjacent trees in order to reduce the effects of competition on the old trees. The aim of these operations is to improve the conditions for the veteran tree in terms of nutrient uptake, and/or to reduce light competition from younger more vigorous trees and so improve the vitality of the veteran. This is generally achieved by increasing light to shaded parts of the tree in order to stimulate new leaf and shoot growth. The removal or coppicing of competitive trees reduces competition for nutrients within the tree root zone.
- 7.9.2 Where works have been specified to be carried out on "competition", this refers to plants / trees that are competing with the surveyed tree within its root environment and shading the lower and mid regions of the tree. The majority of these operations relate to thinning competition by a specified percentage. Such works will often be phased and repeated cyclically; for instance the prescription to "Thin competition by 20%, repeat every 3 years" is intended to ensure that removal does not have traumatic consequences, some shade is retained and managed to ensure that competitive growth does not exceed 15 years of age.
- 7.9.3 Where the specified works refer to "high canopy competition", these are to be carried out on trees that shade the mid and upper parts of the tree at the time of the survey. These trees may also compete within the root zone of the tree. The majority of these operations relate to either the thinning or reduction of the crowns of high canopy competition trees.
- 7.9.4 Veteran trees are typically intolerant of drastic change to their environment. Thinning operations intended to restore open conditions should be gradual. Trees in a forest situation grow as a community, protecting each other from the elements typically growing tall, with elongated crown stems and high canopies. Ill-advised, heavy thinning may have a range of harmful effects upon individually retained veteran trees and upon their associated habitats. In order to avoid such damage to the veteran tree, operations to manage competitive growth are generally phased over several years with first operations typically being relatively subtle; for instance the staged reduction of high canopy competition from 16m to 6m over 12 years with return periods of 3 years would typically have a first operation of "prune back by 1m".
- 7.9.5 Injudicious thinning is liable to expose the remaining trees to sunlight and wind. The higher levels of exposure may cause sun-scorch and desiccation to the trunks and branches leading to bark death. In certain instances desiccation of the previously shaded woodland floor may occur. Retained trees may experience damage from wind or ice loading. Such changes may affect circumstances that may have previously favoured certain species and repressed the development of others.
- ### 7.10 Management of Ivy
- 7.10.1 Any decision to control ivy (*Hedera helix*) should be decided in the light of an assessment of its benefits for various forms of wildlife, of which there are many, including being an essential source of food for many insects and birds and providing shelter for invertebrates, birds, small mammals and bats, against its possible adverse effects; i.e. mechanical loading of weak branches or the shading-out of rare epiphytes or of epicormic shoots that are potentially important in crown retrenchment.
- 7.10.2 Since many of the species associated with veteran trees are very sensitive to light and warmth, a suitable balance of sunshine and shade should be maintained; if necessary by managing the vegetation around the trees, including ivy or other climbing plants.
- 7.10.3 Since ivy is generally beneficial to wildlife and in the case of veteran trees, may be helping to maintain the integrity of the trees structural integrity, it should be retained where this does not negatively impact on the health or longevity of the tree for the reasons discussed above. Each tree with a recommendation regarding ivy, is therefore treated on its merits.



7.1 Management for Succession and Habitat Continuity

- 7.11.1 Veteran features are most common in ancient trees. However, trees from younger age classes may develop veteran features that are suitable habitats for wood-decay organisms. The number of veteran trees in a population is a useful measure of the value of a site for nature conservation. Many of the dependent organisms have limited dispersal ability and so there should be veteran trees present throughout the site. With this aim in mind the promotion of veteran features on mature trees situated around the existing veteran trees may be recommended.
- 7.11.2 The selection of trees for veteran continuity is a generic recommendation. This is intended to identify areas where work to bolster the existing veteran population can focus on recruiting viable trees for future veteran habitat from those that are already present. Where this is specified it refers to those cases where it is considered possible to select and manage a number of trees around the surveyed veteran tree for their potential as suitable specimens for veteran continuity. At this stage it is important to select candidate veterans comprehensively across the range of age classes. Future selections will focus on younger trees.
- 7.11.3 The requirement to safeguard the veteran population and the continuity of specialist habitat that they provide is addressed within the management specifications both through "planting of trees for succession" and the "selection of existing trees for veteran continuity".
- 7.11.4 Where young trees are identified as potential future veterans they should be selected, retained and monitored. Mature trees may also contribute to this continuity management principle, by having 'veteranisation' treatment carried out. Such treatment is intended to increase the dead wood habitat carried by these trees in order to provide a bridge to span the apparent gap in the age structure. Veteranisation works may include wounding and ring barking of crown limbs, breaking of branches and coronet cutting.
- 7.11.5 *In order to commence a program of selecting trees for veteran continuity, we would recommend that a survey is undertaken of the overall tree population and that this should inform decisions as to the target optimum sustainable number of veteran trees required for this site.* This survey should also identify all candidate veterans of any age on a GIS. Subsequently those trees that are required to achieve the optimum future numbers of veteran trees can be selected for management, protection and monitoring.
- 7.11.6 'Maintenance' or 'management' may be recommended for plants and trees adjacent to surveyed veteran trees. The intention of these recommendations is to ensure that these plants/trees are retained in adequate condition to perform their function (e.g. thorny species providing a protective barrier to the veteran tree) without having a detrimental effect, such as excessive shading on the veteran tree.

7.1 Timing of Works

- 7.12.1 Currently the optimal time to prune veteran trees is open to debate. Experience has shown that pruning during a drought year or in year that follows a drought should be avoided, since the tree's starch reserves may be insufficient to sustain re-growth. Also drying of tissues may encourage dieback and extensive fungal colonisation, at a time when the tree has depleted resources for effective compartmentalisation.



- 7.12.2 It is advised that pruning of veteran trees is not carried out in the months of June, July and August as it is during these periods that the trees may be stressed due to low water availability. There is evidence to suggest that pruning during March, April and May is sub-optimal as the trees have low energy reserves due to spring flushing (Lonsdale, 1995). There is the possibility that trees may still be experiencing stress from low water availability during September and October making them vulnerable to microbial colonisation of wound areas (at a time when fungal spores are most abundant). This leaves a window extending from November to February, during the trees' dormant period, where pruning is likely to have the least deleterious effects on tree vitality. This is particularly important for oaks.
- 7.12.3 The restrictions relating to periods of drought require systems to be in place that identify periods that are unsuitable for pruning. These systems will involve communication between the site managers and the arboricultural contractors. Guidance on the nature of the systems that would have to be employed is given in Box 2.

Box 2: Factors influencing the timing of tree works.

The care of the living veteran trees on the site should be considered a priority for management. Therefore any works intended for the care of the veteran trees have to be carried out with sensitivity and skill in order to have the intended effect on tree health. With this aim the following guidelines should be followed:

- No works should be carried out during periods of drought, (a period of drought is considered to be 20 consecutive days without rain). If a dry period follows pruning the root zone of each tree that has been pruned will require watering.
- No pruning works should be carried out on trees in the year following an exceptionally dry summer. In some cases this may over-ride works scheduled in as routine tree risk management. However, there may be particularly dangerous trees or trees posing a very high risk of structural failure that will have to be worked on during this period.
- Contractors should be aware of the vulnerability of veteran trees to hot and dry weather. It is recommended that there should be flexibility in their terms of contract to ensure that financial / contractual pressures do not lead to trees being worked on during exceptionally hot periods.

7.1 Retrenchment Pruning Guidance

- 7.13.1 **Assessment of suitability of specification:** When assessing trees for their suitability for restoration (retrenchment) pruning, intervention will be determined by consideration of the current vitality and crown stability of the tree. The proposed pruning levels to be adopted may need to consider a range of factors including the period before which intervention should take place (treatment priority) and the percentage reduction in the first operation (intervention stage). In addition the process may consider the ultimate desired crown height or spread (final crown size), the overall length of time to achieve the proposed modified crown (duration), the number of cycles and return period between re-inspections and subsequent operations (return

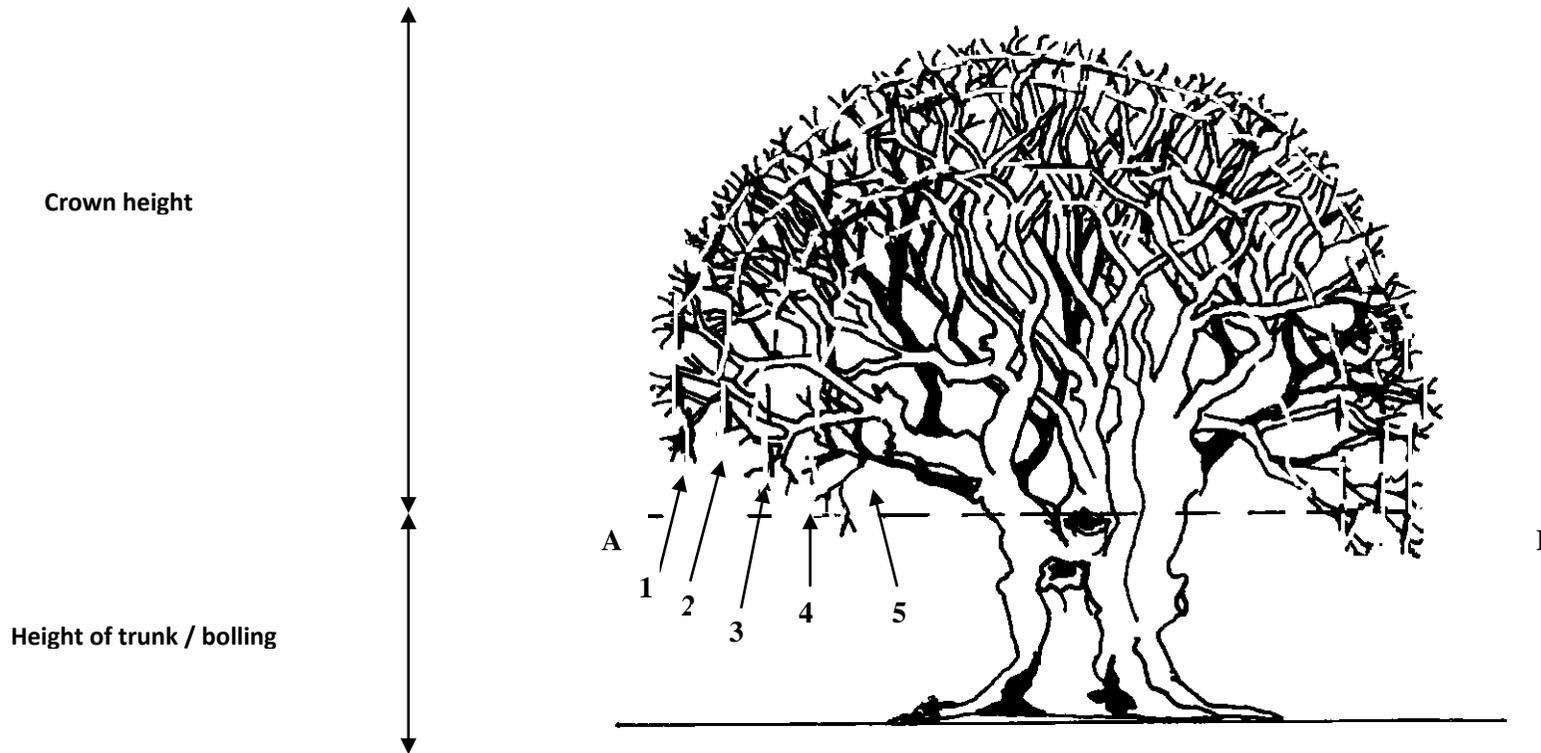
period) and pruning levels (percentages). These considerations combined form the basis of an Individual Tree Management Plan (ITMP) for the management of retrenchment pruning for the tree in question (See diagram below).

- 7.13.2 **Formulating an Individual Tree Management Plan (ITMP):** The first stage of a phased operation will necessarily be in response to an assessment of the trees current condition. This will likely be a more finely-tuned rejuvenation treatment of known extent (usually targeted to the crown extremity). Later phases of reduction are predictive. Therefore it is possible to distinguish between percentage reductions that refer to the first operation (i.e. 'intervention stage') and subsequent phases ('return phases') of the ITMP.
- 7.13.3 **Principles of implementing the ITMP works:** It is important to recognise that although the ITMP may extend for two to three decades it may need modification during the life of the Plan. Good practice should then require that return operations be based on re-inspections prior to implementation of the appropriate phase, and should take account of the tree's condition at that time, noting local changes to the tree's growth circumstances and its response to the previous operation. The ITMP might therefore be subject to redrafting based on these considerations. A valuable by-product of this process is that the ITMP forms the basis for a long-term record of the tree's response to management.



Guidance Example for Retrenchment Pruning based on Individual Tree Management Plan (ITMP)

Neville Fay (2004)
Treework Environmental Practice
 FIG 1



Ratio of trunk/boll to crown height	Total number of years to carry out reduction	Number of stages to carry out phased reduction	Period between stages (years)
4:1	30	6	6
3:1	20	5	5
2:1	16	5	4
1:1	12	4	4
Example for tree with trunk/crown ratio 1:3			
Stage 1 (First Operation)	Intervention stage	Typically involves <10% reduction targeted to end-growth (degree will depend on current vitality)	
Stage 2, 3 & 4	Intermediate stages	Five years apart preceded by reinspection & moderated in response to vitality indications	
Stage 5 (Management Objective)	Final stage	Preceded by reinspection & carried out to achieve target height (Five years after stage 4)	

8.0 FURTHER SURVEY WORK AND CONSULTANCY

8.1 Veteran Tree Condition Assessment

- 8.1.1 Assessment of each veteran tree should be carried out regularly. It is especially important to assess the trees following completion of an operation, ideally assessing the tree one year prior to the next prescribed treatment to give sufficient time for the effects of the treatment to be observable. At this time future work can either be recommended or works that are already in the Individual Tree Management Plan can be checked for appropriateness, amended or cancelled, and their priorities and frequency extended or shortened. Following the prescribed re-inspection schedule will ensure that these re-assessments are conducted at the appropriate time for each tree.

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Appendix I Glossary of Terms)

Term	Meaning
Access Facilitation Pruning	One-off tree pruning operation, the nature and effects of which are without significant adverse impact on tree physiology or amenity value, which is directly necessary to provide access for operations on site
Access Facilitation Pruning	One-off tree pruning operation, the nature and effects of which are without significant adverse impact on tree physiology or amenity value, which is directly necessary to provide access for operations on site
Adaptive Growth	Process whereby the rate of wood formation in the cambial zone, as well as wood quality, responds to gravity and other forces acting on the cambium
Adventitious Bud/Root/Shoot	Bud/root/shoot that forms other than through primary development
Climbing Inspection / Aerial Inspection	A close inspection of the aerial part of a tree, either by mobile elevated work platform (MEWP) or by a tree surgeon (climbing inspection).
Ancient Tree	A tree that is old for its species
Apical Dominance	The ability of a shoot apex to continue growing while inhibiting the axillary buds.
Arboricultural Consultant	Specialist competent to give tree-related advice, whether verbal or written in various formats (letter, tree report, proof of evidence etc.).
Arboricultural Method Statement	Methodology for the implementation of any aspect of development that is within the root protection area, or has the potential to result in loss of or damage to a tree to be retained
Arboriculturalist	Person who, through relevant education, training and experience, has gained recognized expertise in the care of trees
Arborist	Alternative term for tree-work contractor, now sometimes used (following usage in the US) to include other arboriculturists.
Arisings	Any parts of a tree, including stem, roots, branches (brushwood), bark, other woody material and foliage, derived from the tree during tree work operations
Bark	The outermost layer of a woody stem or root, adapted to protect the underlying tissues. The term may refer to the non-living (outer) bark or to all the tissues that separate at the vascular cambium.
Bat roost	Bats do not build nests but roost in pre-existing features that afford shelter and protection, for instance in cavities, fissures and crevices, behind loose bark etc. in trees, as well as in the pockets created by the intertwining stems of rank ivy (if greater in diameter than about 40mm). These features are popularly associated with large and veteran trees but also occur in much smaller and younger trees. Bats have complex seasonal behaviour and use different roosts for different purposes, so that a roost may be unoccupied for large parts of the year yet still be in intermittent use.



Term	Meaning
Cable / Flexible Bracing System	<p>A flexible restraint is a system of cables, ropes or belts constructed within the crown of a tree to reduce the probability of failure of one or more structurally weak elements under excessive movement. Where desirable for the stimulation of adaptive growth, a degree of movement (low-load oscillation) can be maintained by the use of synthetic ropes or belts, rather than steel cables, possibly in conjunction with an energy-absorbing device.</p> <p>The method of securing the restraint can be non-invasive (typically attached using a sling) or invasive (typically attached using a bolt fixed in to or through the tree). At the time of publication of this edition of BS 3998, custom and practice are increasingly favouring the use of non-invasive systems, although only limited research has been carried out on the durability of the materials and the long-term effects of such systems on the tree.</p> <p>A flexible restraint system should be designed to help prevent excessive movement of a weak structure and, in the event of failure, to have sufficient strength to support the detached part of the tree.</p>
Cambium	The single layer of undifferentiated cells under the bark, between the phloem and xylem from which other vascular tissue is derived
Canopy	The complete outer perimeter of the tree's crown.
Co-dominant Stem/Branch	Upward growing stem/branch with a similar height and disposition as another stem/branch
Competition / Competing Plants or Trees	Trees and plants that compete for sunlight and / or nutrients with the subject tree
Construction Exclusion Zone	Area based on the root protection area from which access is prohibited for the duration of a project
Coppice	Re-growth from the cut stumps of certain trees, producing a multi-stemmed form. Usually refers to a system of woodland management that involves repeated cutting on a short rotation. An old coppice stump is a stool.
Coppicing	Cutting trees close to ground level with the intention of encouraging regrowth of multiple shoots
Coronet Cut	This pruning technique designed to mimic the effect of natural breakage by cutting the end of a reduced limb through a series of irregular cuts made onto the surface of the stub end. The technique results in a natural fracture effect through the 'sculptural' use of the chainsaw (whether to living or dead wood)
Crotch	Forked region formed by the junction of a branch and the stem, or by two branches
Crown	That part of a tree where the greater mass of foliar bearing growth is present and is composed of limbs, branches and foliage.
Crown Balancing	The pruning of the canopy to achieve overall improvement in either the distribution of weight or foliage allocation about the crown.
Crown Lifting	Removal of lower branches to achieve a stated vertical clearance above ground level or other surface
Crown Reduction	Operation that results in an overall reduction in the height and/or spread of the crown of a tree by means of a general shortening of twigs and/or branches, whilst retaining the main framework of the crown
Crown Thinning	Removal of a proportion of small, live branches from throughout the crown to achieve an even density of foliage around a well-spaced and balanced branch structure



Term	Meaning
DBH / Stem Diameter	Diameter at Breast Height. The mean diameter of the stem(s) of a tree. Most arboricultural surveys measure stem diameter at 1.5m above ground level, however, historically the height of measurement has been 1.3m above the ground level (this height is generally still used for Veteran trees and in Forestry Surveys); .
Dead Wood	In some situations dead wood can pose a hazard as it can fall from the tree. However it also provides a range of habitats both when aerial and when on the ground. The habitat offered changes as the wood decays. Past woodland management has retained little dead wood and so dependent organisms are now uncommon.
End-weight Reduction	The practice of reducing the mechanical loading upon the outer region of overextended or failure prone limbs. This entails a selective pruning through a combination of thinning and targeted reduction of the crown periphery to achieve a specified percentage reduction of outer growth. Internal growth (particularly epicormic) should be retained and not damaged in the pruning process.
Epicormic Branch/Bud/Shoot	Branch/bud/shoot initiated on a mature woody stem or branch
Epicormic Growth	Growth derived from a dormant or adventitious bud on a main stem or branch. Such growth within the crown of fully mature and veteran trees is valued for longevity and its protection and promotion is an important aspect of veteran tree management (see Retrenchment Pruning & Reiterative Growth).
Formative Pruning	Pruning of young trees to modify their form at maturity, either to avoid future structural defects (for instance by singling a twin-stem) or to create a desired cultivated tree form. The term is reserved for young trees because all pruning could be said to change form.
Included Bark	Bark tissue lodged in the union between a branch and the parent stem, in the crotch of two branches, or between the bases of co-dominant stems, indicating potential weak attachment
Internal Decay Assessment	A method for assessing the presence, quality and extent of tree stems. Systems for delivering internal decay assessment include sonic tomography and drills that measure resistance
Lapsed Coppice/ Lapsed Pollard	Tree that has been coppiced/pollarded but has not been maintained by cycles of cutting
Monolith	A large hulk of standing dead wood, usually the trunk of the tree or the trunk with the base of the branch framework. These should be retained for habitat where possible.
Natural Fracture Technique	Branch breakage from mechanical weakness or storm damage results in an array of effects on wood tissue at branch and trunk ends, including fibre separation (along the grain) and splintering in various planes (linear, radial and circumferential). This occurrence creates microhabitats that are colonised by microorganisms and succession species. Natural fracture techniques involve pruning methods that are used to mimic the way that tears and fractured ends naturally occur on trunks and branches. A coronet cut is a type of natural fracture technique that is particularly intended to mimic jagged edges characteristically seen on broken branches following storm damage or static limb failure.
Natural Regeneration	Growth from seed which was naturally dispersed. The natural regeneration of trees in a woodland is an alternative to planting.



Term	Meaning
Pole Thin	The practice of reducing overall leverage about the bolling by selective removal of specified (or identified proportion) of crown poles. This is intended to: a) prevent traumatic crown failure, b) promote lower crown growth closer to bolling, c) create the potential for gradual formation of secondary pollard stem growth, d) enable the gradual return to a cycle of pollard management. Cut poles would normally be left at 5x pole diameter from their point of attachment.
Pollard	A tree that in the past has been subject to the removal of principal crown limbs to near the top of the main trunk (bole). Historically the cuts are made above the level at which livestock can browse.
Pollarding	Cutting a tree so as to encourage formation of numerous branches arising from the same height on a main stem or principal branches
Pruning	The removal of live twigs, branches or roots from the tree.
Re-iterative Growth	A shoot growth developing from internal upper surface of branches (arising from dormant or cambial growth). In ancient trees this anatomical feature may develop into a structural component capable of independent functional linkage to the root system.
Remove Deadwood	Remove dead branches and stems
Re-shape/Re-balance as Feasible	Pruning to maintain as balanced, even and natural crown form as is feasible without carrying out major structural pruning or significantly reducing the crown. Often specified to follow major crown pruning (e.g. crown reduction) in order to indicate that works should result in a well formed crown.
Restoration Pruning	Technique for imitating the natural ageing process of crown retrenchment and is used for extending the viability (both in terms of vitality and stability) of veteran trees (see Retrenchment Pruning).
Retrenchment Pruning	Form of crown reduction intended to encourage development of the lower crown, which emulates the natural process whereby the crown of an ageing tree retains its overall biomechanical integrity by becoming smaller through the progressive shedding of small branches
Ring Bark	To remove bark and cambium from the entire circumference of a tree stem or branch in order to cause the death of the tree or branch, over time by removing / damaging the vascular system that transports nutrients to the leaves.
Root Protection Area	Layout design tool indicating the minimum area around a tree deemed to contain sufficient roots and rooting volume to maintain the tree's viability, and where the protection of the roots and soil structure is treated as a priority
Rooting Environment	The soil to root interface within the root plate, often with associated mycorrhizae. Area for exchange of nutrients, gasses and water. Also known as the Rhizosphere
Service	Any above- or below-ground structure or apparatus required for utility provision
Soil Compaction	The compression of soil so that voids between soil particles, where air and water are normally present, are closed. This results in the soil becoming anaerobic and unable to support tree roots.
Stabilise / Reduce Deadwood	Reduce deadwood to sizes that are unlikely to become detached and fall from the tree. It is recommended that the tree surgeon tests the stability of the retained deadwood.
Static Load Test	A method of testing the structural stability of tree roots and stems by applying a known tension to a tree and measuring the deflection / movement of selected parts of the tree
Stem	Principal above-ground structural component of a tree that supports the branches



Term	Meaning
Stem Diameter (also see DBH)	The mean diameter of the stem(s) of a tree. Most arboricultural surveys measure stem diameter at 1.5m above ground level, however, historically the height of measurement has been 1.3m above the ground level (this height is generally still used for Veteran trees and in Forestry Surveys); .
Stem Taper	Decrease in diameter of a tree's stem from the base upwards
Structure	Manufactured object, such as a building, carriageway, path, wall, service run, and built or excavated earthwork
Sylvercultural Thin	To remove the poorer quality trees from a group in order that the remaining trees have more space to develop to good form
Target	What might be harmed in the event of tree failure.
Target Area	In tree hazard assessments, the area in which are found persons or property or other things of value, which might be harmed by mechanical failure of the tree or by objects falling from it.
Topping	Removal of most or all of the crown of a mature tree by indiscriminately cutting through the main stem(s)
TPO	A Tree Preservation Order is an order made by a local planning authority in England to protect specific trees, groups of trees or woodlands in the interests of amenity
Tree Pit	Excavated hole of adequate dimensions to accommodate the root system of a specified tree
Tree Protection Plan	Scale drawing, informed by descriptive text where necessary, based upon the finalized proposals, showing trees for retention and illustrating the tree and landscape protection measures
Veteran Tree	Tree that, by recognized criteria, shows features of biological, cultural or aesthetic value that are characteristic of but not exclusive to, individuals surviving beyond the typical age range for the species concerned
Veteranization	Controlled infliction of damage on a tree to achieve a specific habitat objective
Vigour	In tree assessment, an overall measure of the rate of shoot production, shoot extension or diameter growth.
Vitality	Overall measure of physiological and biochemical processes, in which high vitality equates with near-optimal function
Woodchip Mulch	Chippings produced from trees and or branches that can be spread as a mulch to suppress ground cover plants and, through the decomposition process, encourage beneficial soil organisms and release nutrients that can benefit the tree root environment
Work Area	Area designated for the safe execution of the specified work
Wound	Injury in a tree caused by a physical force



Appendix II

Individual Tree Reports



Tree 1 (sgl/510476)

Salix alba
White Willow

Easting: 544714

Northing: 257359

Tree

Girth @ 1.30m: 541 cm
 Bole Height (m): 2.5m
 Crown spread (m): 10
 Tree height (m): 16
 Number of Trunks: 1
 Veteran Type: Ancient / Veteran
 Tree Form: Managed Pollard / Repollard
 Standing/Fallen: Standing
 Live Growth: Live growth occupies > 50% of current outline
 Crown Loss: Tree has shed 50%-75% of likely peak crown framework
 Shade: Unshaded - unshaded at present
 Epicormic Growth: Stem
 Past Management: Crown Reduction/Pollarding

Condition / Context:

Tree Habitat

Bark Condition:	Base & Stem	Rot:	White
Bark Flux:	None	Deadwood Attached:	3
Split Limbs :	0	Deadwood Fallen:	0
Tears:	0	Holes:	11
Scars:	1	Hollowing in Crown:	2
Lightning:	None	Hollowing - Top:	Advanced hollowing
Live Stubs:	0	Hollowing - Mid:	Moderate hollowing 15 - 30cm
Water Pockets:	0	Hollowing - Base:	Moderate hollowing 15 - 30cm

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Tree Associates

Vertebrate species	1	Foraging birds
Invertebrate species	5	Exit holes Frass Spider web Spider web (funnel)
Epiphyte species	8	Bramble Elder Lichen Moss
Fungi species	1	Skin-like (stem)

7

Tree 2 (sgl/510468)

Salix fragilis
Crack Willow

Easting: 544736

Northing: 257350

Tree

Girth @ 1.30m: 298 cm
 Bole Height (m): 1.5 m
 Crown spread (m): 10
 Tree height (m): 16
 Number of Trunks: 1
 Veteran Type: Non Ancient Veterans
 Tree Form: Tiered Lapsed Pollard
 Standing/Fallen: Standing
 Live Growth: Live growth occupies > 50% of current outline
 Crown Loss: Tree has shed 50%-75% of likely peak crown framework
 Shade: Light Shade - shaded on one or two sides but not from above
 Epicormic Growth: Crown
 Past Management: Pollarding

Condition / Context:

Tree Habitat

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Bark Condition:	Base, Stem & Crown	Rot:	White
Bark Flux:	None	Deadwood Attached:	7
Split Limbs :	1	Deadwood Fallen:	2
Tears:	0	Holes:	3
Scars:	3	Hollowing in Crown:	5
Lightning:	None	Hollowing - Top:	Moderate hollowing 15 - 30cm
Live Stubs:	0	Hollowing - Mid:	Moderate hollowing 15 - 30cm
Water Pockets:	0	Hollowing - Base:	Advanced hollowing

Tree Associates

4

Vertebrate species	1	Foraging birds
Invertebrate species	1	Small exit boreholes Spider web Frass Large exit boreholes
Epiphyte species	1	Elder Lichen Ash Ivy
Fungi species	1	Skin-like (crown) deadwood

Tree 3 (Sgl/510464)

Salix fragilis

Crack Willow

Easting: 544737

Northing: 257356

Tree

Girth @ 1.30m: 238 cm
Bole Height (m): 2 m
Crown spread (m): 8
Tree height (m): 16
Number of Trunks: 1
Veteran Type: Non Ancient Veterans
Tree Form: Managed Pollard / Repollard
Standing/Fallen: Standing
Live Growth: Live growth occupies > 50% of current outline
Crown Loss: Tree has shed 50%-75% of likely peak crown framework
Shade: Light Shade - shaded on one or two sides but not from above
Epicormic Growth: Crown
Past Management: Pollarding

Condition / Context:

Tree Habitat

Bark Condition:	Base, Stem & Crown	Rot:	Brown
Bark Flux:	None	Deadwood Attached:	2
Split Limbs :	1	Deadwood Fallen:	0
Tears:	0	Holes:	4
Scars:	0	Hollowing in Crown:	0
Lightning:	None	Hollowing - Top:	Advanced hollowing
Live Stubs:	0	Hollowing - Mid:	Moderate hollowing 15 - 30cm
Water Pockets:	0	Hollowing - Base:	Minor hollowing <15cm

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Tree Associates

Invertebrate species	1	Small exit boreholes Spider web
Epiphyte species	1	Ivy Elder Lichen
Fungi species	0	
Vertebrate species	1	Foraging birds

3

Tree 4 (Sgl/510452)

Salix fragilis

Crack Willow

Easting: 544737

Northing: 257360

Tree

Girth @ 1.30m:	232 cm
Bole Height (m):	2 m
Crown spread (m):	12
Tree height (m):	16
Number of Trunks:	1
Veteran Type:	Non Ancient Veterans
Tree Form:	Tiered Lapsed Pollard
Standing/Fallen:	Standing
Live Growth:	Live growth occupies > 50% of current outline
Crown Loss:	Tree has shed 50%-75% of likely peak crown framework
Shade:	Light Shade - shaded on one or two sides but not from above
Epicormic Growth:	Crown
Past Management:	Pollarding

Condition / Context:

Tree Habitat

Bark Condition:	Base, Stem & Crown	Rot:	White
Bark Flux:	None	Deadwood Attached:	0
Split Limbs :	0	Deadwood Fallen:	0
Tears:	0	Holes:	3
Scars:	1	Hollowing in Crown:	5
Lightning:	None	Hollowing - Top:	Advanced hollowing
Live Stubs:	1	Hollowing - Mid:	Moderate hollowing 15 - 30cm
Water Pockets:	0	Hollowing - Base:	Advanced hollowing

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Tree Associates

Invertebrate species	1	Frass Small exit boreholes Spider web
Vertebrate species	1	Foraging birds
Epiphyte species	4	Elder Ivy Lichen Herb
Fungi species	0	

4

Tree 5 (Sgl/510440)

Salix alba
White Willow

Easting: 544744

Northing: 257372

Tree

Girth @ 1.30m: 400 cm
 Bole Height (m): NA
 Crown spread (m): 9
 Tree height (m): 6
 Number of Trunks: 1
 Veteran Type: Non Ancient Veterans
 Tree Form: Managed Pollard / Repollard
 Standing/Fallen: Fractured, collapsed trunk or crown attached to parent tree
 Live Growth: Live growth occupies 25%-50% of current crown outline
 Crown Loss: Tree has shed > 75% of likely peak crown framework
 Shade: Unshaded - unshaded at present
 Epicormic Growth: Crown
 Past Management: Pollarding

Condition / Context:

Fallen

Tree Habitat

Bark Condition:	Base, Stem & Crown	Rot:	Brown
Bark Flux:	None	Deadwood Attached:	0
Split Limbs :	0	Deadwood Fallen:	0
Tears:	0	Holes:	0
Scars:	0	Hollowing in Crown:	0
Lightning:	None	Hollowing - Top:	Moderate hollowing 15 - 30cm
Live Stubs:	0	Hollowing - Mid:	Advanced hollowing
Water Pockets:	0	Hollowing - Base:	Advanced hollowing

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Tree Associates

Invertebrate species	1	Frass Small exit boreholes Spider web
Fungi species	0	
Epiphyte species	1	Ivy
Vertebrate species	1	Foraging birds

3

Tree 6 (Sgl/510436)

Salix sp.
Willow sp.

Easting: 544737

Northing: 257381

Tree

Girth @ 1.30m: 330 cm
 Bole Height (m): 2.5
 Crown spread (m): 4
 Tree height (m): 8
 Number of Trunks: 1
 Veteran Type: Non Ancient Veterans
 Tree Form: Managed Pollard / Repollard
 Standing/Fallen: Standing
 Live Growth: Live growth occupies > 50% of current outline
 Crown Loss: Tree has shed > 75% of likely peak crown framework
 Shade: Light Shade - shaded on one or two sides but not from above
 Epicormic Growth: Base & Stem
 Past Management: Pollarding

Condition / Context:

Tree Habitat

Bark Condition:	Base, Stem & Crown	Rot:	White
Bark Flux:	None	Deadwood Attached:	1
Split Limbs :	1	Deadwood Fallen:	0
Tears:	0	Holes:	6
Scars:	0	Hollowing in Crown:	6
Lightning:	None	Hollowing - Top:	Advanced hollowing
Live Stubs:	0	Hollowing - Mid:	Advanced hollowing
Water Pockets:	0	Hollowing - Base:	Moderate hollowing 15 - 30cm

17

Tree Associates

Invertebrate species	1	
Fungi species	1	Skin-like (crown)
Epiphyte species	4	Ivy Moss Herb Elder
Vertebrate species	1	Foraging birds

5

Tree 7 (Sgl/510432) *Salix sp.*
Willow sp.

Easting: 544734
Northing: 257381

Tree

Girth @ 1.30m: 356 cm
Bole Height (m): 2.5m
Crown spread (m): 3
Tree height (m): 8
Number of Trunks: 1
Veteran Type: Ancient / Veteran
Tree Form: Managed Pollard / Repollard
Standing/Fallen: Standing
Live Growth: Live growth occupies 25%-50% of current crown outline
Crown Loss: Tree has shed > 75% of likely peak crown framework
Shade: Light Shade - shaded on one or two sides but not from above
Epicormic Growth: Base & Crown
Past Management: Pollarding

Condition / Context:

Tree Habitat

Bark Condition:	Base, Stem & Crown	Rot:	White
Bark Flux:	None	Deadwood Attached:	0
Split Limbs :	0	Deadwood Fallen:	0
Tears:	0	Holes:	3
Scars:	0	Hollowing in Crown:	3
Lightning:	None	Hollowing - Top:	Minor hollowing <15cm
Live Stubs:	0	Hollowing - Mid:	Minor hollowing <15cm
Water Pockets:	0	Hollowing - Base:	Minor hollowing <15cm

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Tree Associates

Invertebrate species	2	Small exit boreholes Spider web
Fungi species	1	Bracket (deadwood)
Epiphyte species	1	Ivy
Vertebrate species	1	Foraging birds

4

Tree 8 (Sgl/510260)

Salix alba
White Willow

Easting: 544707

Northing: 257459

Tree

Girth @ 1.30m: 442 cm
 Bole Height (m): NA
 Crown spread (m): 17
 Tree height (m): 28
 Number of Trunks: 1
 Veteran Type: Non Ancient Veterans
 Tree Form: Maiden Tree
 Standing/Fallen: Standing
 Live Growth: Live growth occupies 25%-50% of current crown outline
 Crown Loss: Tree has shed 50%-75% of likely peak crown framework
 Shade: Light Shade - shaded on one or two sides but not from above
 Epicormic Growth: None present
 Past Management: Other Aboricultural Work

Condition / Context:

Crown reduction 3m

Tree Habitat

7

Bark Condition:	Base & Stem	Rot:	None observed
Bark Flux:	None	Deadwood Attached:	8
Split Limbs :	1	Deadwood Fallen:	4
Tears:	1	Holes:	1
Scars:	0	Hollowing in Crown:	0
Lightning:	None	Hollowing - Top:	Apparently solid trunk
Live Stubs:	1	Hollowing - Mid:	Apparently solid trunk
Water Pockets:	0	Hollowing - Base:	Apparently solid trunk

Tree Associates

4

Invertebrate species	1	Spider web
Fungi species	0	
Epiphyte species	4	Herb Ivy Lichen Tree
Vertebrate species	1	Foraging birds

Tree 9 (Sgl/510232)

Salix fragilis

Crack Willow

Easting: 544667

Northing: 257460

Tree

Girth @ 1.30m: 300 cm
Bole Height (m): 5 m
Crown spread (m): 10
Tree height (m): 16
Number of Trunks: 1
Veteran Type: Non Ancient Veterans
Tree Form: Managed Pollard / Repollard
Standing/Fallen: Standing
Live Growth: Live growth occupies > 50% of current outline
Crown Loss: Tree has shed > 75% of likely peak crown framework
Shade: Light Shade - shaded on one or two sides but not from above
Epicormic Growth: Crown
Past Management: Pollarding

Condition / Context:

Tree Habitat

Bark Condition:	Base, Stem & Crown	Rot:	White
Bark Flux:	None	Deadwood Attached:	1
Split Limbs :	0	Deadwood Fallen:	0
Tears:	2	Holes:	0
Scars:	0	Hollowing in Crown:	1
Lightning:	None	Hollowing - Top:	Apparently solid trunk
Live Stubs:	0	Hollowing - Mid:	Advanced hollowing
Water Pockets:	0	Hollowing - Base:	Shell

Tree Associates

Invertebrate species	1	Frass Spider web
Fungi species	0	
Epiphyte species	1	Algae
Vertebrate species	1	Foraging birds

13

3

Tree 10 (Sgl/510240) *Salix alba*
White Willow

Easting: 544702
Northing: 257443

Tree

Girth @ 1.30m: 471 cm
 Bole Height (m): NA
 Crown spread (m): 17
 Tree height (m): 24
 Number of Trunks: 1
 Veteran Type: Ancient Trees with Less than 4 Veteran Features
 Tree Form: Maiden Tree
 Standing/Fallen: Standing
 Live Growth: Live growth occupies > 50% of current outline
 Crown Loss: Tree has shed < 25% of likely peak crown framework
 Shade: Light Shade - shaded on one or two sides but not from above
 Epicormic Growth: None present
 Past Management: Other Aboricultural Work

Condition / Context:
Crown reduction by 2m

Tree Habitat

Bark Condition:	Stem & Crown	Rot:	None observed
Bark Flux:	None	Deadwood Attached:	3
Split Limbs :	0	Deadwood Fallen:	0
Tears:	0	Holes:	7
Scars:	1	Hollowing in Crown:	0
Lightning:	None	Hollowing - Top:	Apparently solid trunk
Live Stubs:	0	Hollowing - Mid:	Apparently solid trunk
Water Pockets:	1	Hollowing - Base:	Apparently solid trunk

7

Tree Associates

Invertebrate species	1	Frass Spider web
Fungi species	0	
Epiphyte species	1	Lichen (2) Moss
Vertebrate species	1	Foraging birds

3

Tree 11 (Sgl/510228) *Salix alba*
White Willow

Easting: 544663
Northing: 257490

Tree

Girth @ 1.30m: 398 cm
 Bole Height (m): NA
 Crown spread (m): 12
 Tree height (m): 20
 Number of Trunks: 1
 Veteran Type: Non Ancient Veterans
 Tree Form: Maiden Tree
 Standing/Fallen: Standing
 Live Growth: Live growth occupies > 50% of current outline
 Crown Loss: Tree has shed 50%-75% of likely peak crown framework
 Shade: Light Shade - shaded on one or two sides but not from above
 Epicormic Growth: Crown
 Past Management: None known

Condition / Context:

Tree Habitat

Bark Condition:	Crown	Rot:	White
Bark Flux:	None	Deadwood Attached:	2
Split Limbs :	0	Deadwood Fallen:	0
Tears:	2	Holes:	3
Scars:	2	Hollowing in Crown:	0
Lightning:	None	Hollowing - Top:	Apparently solid trunk
Live Stubs:	3	Hollowing - Mid:	Apparently solid trunk
Water Pockets:	0	Hollowing - Base:	Apparently solid trunk

6

Tree Associates

Invertebrate species	1	Spider web
Fungi species	0	
Epiphyte species	3	Ivy Lichen (2)
Vertebrate species	1	Foraging birds

3

Tree 12 (Sgl/510264) *Salix alba*
White Willow

Easting: 544726
Northing: 257494

Tree

Girth @ 1.30m: 496 cm
 Bole Height (m): NA
 Crown spread (m): 17
 Tree height (m): 28
 Number of Trunks: 1
 Veteran Type: Ancient Trees with Less than 4 Veteran Features
 Tree Form: Maiden Tree
 Standing/Fallen: Standing
 Live Growth: Live growth occupies > 50% of current outline
 Crown Loss: Tree has shed < 25% of likely peak crown framework
 Shade: Light Shade - shaded on one or two sides but not from above
 Epicormic Growth: None present
 Past Management: Other Aboricultural Work

Condition / Context:
Crown reduction 3m

Tree Habitat

Bark Condition:	Stem & Crown	Rot:	None observed
Bark Flux:	Dry	Deadwood Attached:	1
Split Limbs :	0	Deadwood Fallen:	5
Tears:	0	Holes:	12
Scars:	2	Hollowing in Crown:	0
Lightning:	None	Hollowing - Top:	Apparently solid trunk
Live Stubs:	2	Hollowing - Mid:	Apparently solid trunk
Water Pockets:	1	Hollowing - Base:	Apparently solid trunk

9

Tree Associates

Invertebrate species	2	Frass Spider web
Fungi species	0	
Epiphyte species	6	Herb- (Cow parsley) Holly Elder Hawthorn Lichen (2)
Vertebrate species	1	Foraging birds

4

Tree 13 (Sgl/510272) *Salix sp.*
Willow sp.

Easting: 544728
Northing: 257502

Tree

Girth @ 1.30m: 428 cm
 Bole Height (m): NA
 Crown spread (m): 14
 Tree height (m): 7
 Number of Trunks: 1
 Veteran Type: Non Ancient Veterans
 Tree Form: Phoenix Regeneration
 Standing/Fallen: Collapsed, trunk on ground: rootplate intact, attached to ground
 Live Growth: Live growth occupies > 50% of current outline
 Crown Loss: Tree has shed > 75% of likely peak crown framework
 Shade: Unshaded - unshaded at present
 Epicormic Growth: Crown
 Past Management: None known

Condition / Context:
p looking nw

Tree Habitat

Bark Condition:	Base, Stem & Crown	Rot:	Brown
Bark Flux:	None	Deadwood Attached:	3
Split Limbs :	4	Deadwood Fallen:	0
Tears:	2	Holes:	5
Scars:	1	Hollowing in Crown:	2
Lightning:	None	Hollowing - Top:	Advanced hollowing
Live Stubs:	1	Hollowing - Mid:	Moderate hollowing 15 - 30cm
Water Pockets:	0	Hollowing - Base:	Minor hollowing <15cm

14

Tree Associates

Invertebrate species	1	Frass Large exit boreholes	Small exit boreholes	Galleries
Fungi species	0			
Epiphyte species	6	Nettle Cow parsley	Dead nettle	Dock Moss Lichen
Vertebrate species	1	Foraging birds		

4

Tree 14 (Sgl/510276) *Populus nigra 'Italica'*
Lomardy Poplar

Easting: 544751
Northing: 257496

Tree

Girth @ 1.30m: 456 cm
Bole Height (m): NA
Crown spread (m): 2
Tree height (m): 4
Number of Trunks: 1
Veteran Type: Ancient / Veteran
Tree Form: Shattered/fractured stump (> 4m height)
Standing/Fallen: Collapsed, trunk on ground: rootplate intact, attached to ground
Live Growth: Live growth occupies > 50% of current outline
Crown Loss: Tree has shed > 75% of likely peak crown framework
Shade: Unshaded - unshaded at present
Epicormic Growth: Stem
Past Management: None known

Condition / Context:

Tree Habitat

Bark Condition:	Crown	Rot:	None observed
Bark Flux:	None	Deadwood Attached:	13
Split Limbs :	0	Deadwood Fallen:	0
Tears:	0	Holes:	1
Scars:	0	Hollowing in Crown:	0
Lightning:	None	Hollowing - Top:	Apparently solid trunk
Live Stubs:	0	Hollowing - Mid:	Apparently solid trunk
Water Pockets:	0	Hollowing - Base:	Apparently solid trunk

7

Tree Associates

Invertebrate species	2	Large exit boreholes Spider web
Fungi species	0	
Epiphyte species	6	Ivy Lichen (3) Moss Nettle
Vertebrate species	2	Bird nest Foraging birds

4

Tree 15 (Sgl/510280) *Salix alba*
White Willow

Easting: 544775
Northing: 257505

Tree

Girth @ 1.30m: 501 cm
 Bole Height (m): NA
 Crown spread (m): 22
 Tree height (m): 26
 Number of Trunks: 1
 Veteran Type: Ancient Trees with Less than 4 Veteran Features
 Tree Form: Maiden Tree
 Standing/Fallen: Standing
 Live Growth: Live growth occupies > 50% of current outline
 Crown Loss: Tree has shed < 25% of likely peak crown framework
 Shade: Unshaded - unshaded at present
 Epicormic Growth: None present
 Past Management: None known

Condition / Context:

Tree Habitat

Bark Condition:	None present	Rot:	None observed
Bark Flux:	None	Deadwood Attached:	2
Split Limbs :	1	Deadwood Fallen:	3
Tears:	1	Holes:	0
Scars:	1	Hollowing in Crown:	0
Lightning:	None	Hollowing - Top:	Apparently solid trunk
Live Stubs:	4	Hollowing - Mid:	Apparently solid trunk
Water Pockets:	0	Hollowing - Base:	Apparently solid trunk

5

Tree Associates

Invertebrate species	2	Spider web Spider web (funnel)
Fungi species	0	
Epiphyte species	3	Cotoneaster Ivy Nettle
Vertebrate species	1	Foraging birds

3

Tree 16 (Sgl/510284) *Salix fragilis*
Crack Willow

Easting: 544790
Northing: 257514

Tree

Girth @ 1.30m: 428 cm
 Bole Height (m): 5 m
 Crown spread (m): 15
 Tree height (m): 13
 Number of Trunks: 1
 Veteran Type: Non Ancient Veterans
 Tree Form: Natural Pollard
 Standing/Fallen: Standing
 Live Growth: Live growth occupies > 50% of current outline
 Crown Loss: Tree has shed > 75% of likely peak crown framework
 Shade: Light Shade - shaded on one or two sides but not from above
 Epicormic Growth: Crown
 Past Management: Pollarding

Condition / Context:

Tree Habitat

Bark Condition:	Base, Stem & Crown	Rot:	Brown
Bark Flux:	None	Deadwood Attached:	1
Split Limbs :	2	Deadwood Fallen:	16
Tears:	0	Holes:	9
Scars:	1	Hollowing in Crown:	1
Lightning:	None	Hollowing - Top:	Minor hollowing <15cm
Live Stubs:	0	Hollowing - Mid:	Advanced hollowing
Water Pockets:	0	Hollowing - Base:	Minor hollowing <15cm

18

Tree Associates

Invertebrate species	4	Frass Large exit boreholes	Small exit boreholes	Spider web
Fungi species	0			
Epiphyte species	3	Lichen	Moss	Nettle
Vertebrate species	1	Foraging birds		

4

Tree 17 (Sgl/511120) *Salix fragilis*
Crack Willow

Easting: 544815
Northing: 257508

Tree

Girth @ 1.30m: 260 cm
 Bole Height (m): NA
 Crown spread (m): 9
 Tree height (m): 7
 Number of Trunks: 1
 Veteran Type: Non Ancient Veterans
 Tree Form: Phoenix Regeneration
 Standing/Fallen: Collapsed, trunk on ground: rootplate intact, attached to ground
 Live Growth: Live growth occupies > 50% of current outline
 Crown Loss: Tree has shed > 75% of likely peak crown framework
 Shade: Unshaded - unshaded at present
 Epicormic Growth: Stem
 Past Management: None known

Condition / Context:

Tree Habitat

17

Bark Condition:	Base, Stem & Crown	Rot:	Brown
Bark Flux:	None	Deadwood Attached:	4
Split Limbs :	0	Deadwood Fallen:	2
Tears:	0	Holes:	3
Scars:	0	Hollowing in Crown:	3
Lightning:	None	Hollowing - Top:	Advanced hollowing
Live Stubs:	1	Hollowing - Mid:	Advanced hollowing
Water Pockets:	0	Hollowing - Base:	Advanced hollowing

Tree Associates

6

Invertebrate species	4	Frass Large exit boreholes	Small exit boreholes	Spider web
Fungi species	1	Bracket- saprophyte		
Epiphyte species	4	Elder Nettle Herb-	Galium Cow parsley	
Vertebrate species	1	Foraging birds		

Tree 18 (Sgl/510320) *Salix fragilis*
Crack Willow

Easting: 544772
Northing: 257552

Tree

Girth @ 1.30m: 393 cm
 Bole Height (m): 2.5 me
 Crown spread (m): 12
 Tree height (m): 12
 Number of Trunks: 1
 Veteran Type: Non Ancient Veterans
 Tree Form: Managed Pollard / Repollard
 Standing/Fallen: Standing
 Live Growth: Live growth occupies > 50% of current outline
 Crown Loss: Tree has shed > 75% of likely peak crown framework
 Shade: Close Shade - shaded on three or four sides, not from above
 Epicormic Growth: Stem
 Past Management: Pollarding

Condition / Context:

Tree Habitat

22

Bark Condition:	Base, Stem & Crown	Rot:	Brown
Bark Flux:	None	Deadwood Attached:	2
Split Limbs :	0	Deadwood Fallen:	1
Tears:	1	Holes:	17
Scars:	0	Hollowing in Crown:	1
Lightning:	None	Hollowing - Top:	Advanced hollowing
Live Stubs:	0	Hollowing - Mid:	Advanced hollowing
Water Pockets:	0	Hollowing - Base:	Advanced hollowing

Tree Associates

4

Invertebrate species	4	Frass Large exit boreholes	Small exit boreholes	Spider web
Fungi species	0			
Epiphyte species	2	Elder Ivy		
Vertebrate species	1	Foraging birds		

Tree 19 (Sgl/510316) *Salix fragilis*
Crack Willow

Easting: 544775
Northing: 257558

Tree

Girth @ 1.30m: 370 cm
 Bole Height (m): 2 m
 Crown spread (m): 7
 Tree height (m): 11
 Number of Trunks: 1
 Veteran Type: Non Ancient Veterans
 Tree Form: Managed Pollard / Repollard
 Standing/Fallen: Standing
 Live Growth: Live growth occupies > 50% of current outline
 Crown Loss: Tree has shed > 75% of likely peak crown framework
 Shade: Light Shade - shaded on one or two sides but not from above
 Epicormic Growth: Stem & Crown
 Past Management: Pollarding

Condition / Context:

Tree Habitat

Bark Condition:	Base, Stem & Crown	Rot:	Brown
Bark Flux:	None	Deadwood Attached:	2
Split Limbs :	2	Deadwood Fallen:	2
Tears:	0	Holes:	4
Scars:	1	Hollowing in Crown:	2
Lightning:	None	Hollowing - Top:	Shell
Live Stubs:	0	Hollowing - Mid:	Advanced hollowing
Water Pockets:	0	Hollowing - Base:	Advanced hollowing

19

Tree Associates

Invertebrate species	4	Frass Large exit boreholes	Small exit boreholes	Spider web
Fungi species	1	Skin-like- crown		
Epiphyte species	2	Lichen	Nettle	
Vertebrate species	1	Foraging birds		

5

Tree 20 (Sgl/510312) *Salix alba*
White Willow

Easting: 544776
Northing: 257568

Tree

Girth @ 1.30m: 515 cm
 Bole Height (m): NA
 Crown spread (m): 4
 Tree height (m): 7
 Number of Trunks: 1
 Veteran Type: Ancient Trees with Less than 4 Veteran Features
 Tree Form: Phoenix Regeneration
 Standing/Fallen: Collapsed, trunk on ground: rootplate intact, attached to ground
 Live Growth: Live growth occupies < 25% of current crown outline
 Crown Loss: Tree has shed > 75% of likely peak crown framework
 Shade: Close Shade - shaded on three or four sides, not from above
 Epicormic Growth: Crown
 Past Management: None known

Condition / Context:

Tree Habitat

Bark Condition:	None present	Rot:	Brown
Bark Flux:	None	Deadwood Attached:	1
Split Limbs :	1	Deadwood Fallen:	0
Tears:	0	Holes:	0
Scars:	0	Hollowing in Crown:	1
Lightning:	None	Hollowing - Top:	Shell
Live Stubs:	0	Hollowing - Mid:	Shell
Water Pockets:	0	Hollowing - Base:	Shell

18

Tree Associates

Invertebrate species	4	Frass Large exit boreholes	Small exit boreholes	Spider web
Fungi species	1	Skin-like (stem)		
Epiphyte species	10	Elder Herb- Galium Ivy Nettle Cow parsley Lichen (2) Grass		
Vertebrate species	1	Foraging birds		

7

Tree 21 (Sgl/510304) *Salix fragilis*
Crack Willow

Easting: 544752
Northing: 257577

Tree

Girth @ 1.30m: 222 cm
 Bole Height (m): 4.5 m
 Crown spread (m): 13
 Tree height (m): 12
 Number of Trunks: 1
 Veteran Type: Non Ancient Veterans
 Tree Form: Managed Pollard / Repollard
 Standing/Fallen: Standing
 Live Growth: Live growth occupies > 50% of current outline
 Crown Loss: Tree has shed > 75% of likely peak crown framework
 Shade: Light Shade - shaded on one or two sides but not from above
 Epicormic Growth: Crown
 Past Management: Pollarding

Condition / Context:

Tree Habitat

Bark Condition:	Base & Crown	Rot:	Brown
Bark Flux:	None	Deadwood Attached:	1
Split Limbs :	0	Deadwood Fallen:	0
Tears:	0	Holes:	1
Scars:	0	Hollowing in Crown:	1
Lightning:	None	Hollowing - Top:	Moderate hollowing 15 - 30cm
Live Stubs:	0	Hollowing - Mid:	Moderate hollowing 15 - 30cm
Water Pockets:	0	Hollowing - Base:	Moderate hollowing 15 - 30cm

13

Tree Associates

Invertebrate species	4	Frass Large exit boreholes	Small exit boreholes	Spider web
Fungi species	0			
Epiphyte species	5	Ivy Lichen (3)	Cow parsley	
Vertebrate species	2	Bird nest	Foraging birds	

5

Tree 22 (Sgl/510292) *Salix alba*
White Willow

Easting: 544736
Northing: 257551

Tree

Girth @ 1.30m: 487 cm
 Bole Height (m): NA
 Crown spread (m): 21
 Tree height (m): 27
 Number of Trunks: 1
 Veteran Type: Ancient Trees with Less than 4 Veteran Features
 Tree Form: Maiden Tree
 Standing/Fallen: Standing
 Live Growth: Live growth occupies > 50% of current outline
 Crown Loss: Tree has shed < 25% of likely peak crown framework
 Shade: Light Shade - shaded on one or two sides but not from above
 Epicormic Growth: None present
 Past Management: None known

Condition / Context:

Tree Habitat

Bark Condition:	Crown	Rot:	None observed
Bark Flux:	None	Deadwood Attached:	0
Split Limbs :	1	Deadwood Fallen:	2
Tears:	0	Holes:	2
Scars:	1	Hollowing in Crown:	0
Lightning:	None	Hollowing - Top:	Apparently solid trunk
Live Stubs:	1	Hollowing - Mid:	Apparently solid trunk
Water Pockets:	0	Hollowing - Base:	Apparently solid trunk

5

Tree Associates

Invertebrate species	2	Spider web Spider web (funnel)
Fungi species	0	
Epiphyte species	1	Ivy Lichen (3)
Vertebrate species	1	Foraging birds

3

Tree 24 (Sgl/510220) *Salix alba*
White Willow

Easting: 544659
Northing: 257543

Tree

Girth @ 1.30m: 320 cm
 Bole Height (m): 2 m
 Crown spread (m): 9
 Tree height (m): 11
 Number of Trunks: 1
 Veteran Type: Non Ancient Veterans
 Tree Form: Managed Pollard / Repollard
 Standing/Fallen: Standing/Leaning
 Live Growth: Live growth occupies 25%-50% of current crown outline
 Crown Loss: Tree has shed 50%-75% of likely peak crown framework
 Shade: Light Shade - shaded on one or two sides but not from above
 Epicormic Growth: Crown
 Past Management: Other Aboricultural Work

Condition / Context:
Crown reduction

Tree Habitat

Bark Condition:	Base, Stem & Crown	Rot:	White
Bark Flux:	Wet	Deadwood Attached:	3
Split Limbs :	0	Deadwood Fallen:	0
Tears:	0	Holes:	12
Scars:	0	Hollowing in Crown:	2
Lightning:	None	Hollowing - Top:	Apparently solid trunk
Live Stubs:	0	Hollowing - Mid:	Apparently solid trunk
Water Pockets:	0	Hollowing - Base:	Apparently solid trunk

10

Tree Associates

Invertebrate species	4	Frass Large exit boreholes	Small exit boreholes	Spider web
Fungi species	1	Decay bracket-suspected Ganoderma.		
Epiphyte species	1	Lichen (2) Moss Grass Cow parsley		
Vertebrate species	1	Foraging birds		

5

Tree 26 (Sgl/510208) *Salix alba*
White Willow

Easting: 544721
Northing: 257557

Tree

Girth @ 1.30m: 474 cm
 Bole Height (m): NA
 Crown spread (m): 16
 Tree height (m): 8
 Number of Trunks: 1
 Veteran Type: Ancient / Veteran
 Tree Form: Phoenix Regeneration
 Standing/Fallen: Collapsed, trunk on ground: rootplate intact, attached to ground
 Live Growth: Live growth occupies < 25% of current crown outline
 Crown Loss: Tree has shed > 75% of likely peak crown framework
 Shade: Light Shade - shaded on one or two sides but not from above
 Epicormic Growth: Crown
 Past Management: None known

Condition / Context:

Tree Habitat

Bark Condition:	Base, Stem & Crown	Rot:	White
Bark Flux:	None	Deadwood Attached:	2
Split Limbs :	0	Deadwood Fallen:	35
Tears:	2	Holes:	4
Scars:	0	Hollowing in Crown:	0
Lightning:	None	Hollowing - Top:	Apparently solid trunk
Live Stubs:	1	Hollowing - Mid:	Apparently solid trunk
Water Pockets:	0	Hollowing - Base:	Apparently solid trunk

14

Tree Associates

Invertebrate species	1	Frass Small exit boreholes Spider web
Fungi species	2	Decay brackets- suspected Ganoderma. Saprophyte-
Epiphyte species	1	Holly Grass Lichen Moss Nettle Cow parsley
Vertebrate species	1	Foraging birds

4

Tree 27 (Sgl/509528) *Salix sp.*
Willow sp.

Easting: 544627
Northing: 257828

Tree

Girth @ 1.30m: 505 cm
 Bole Height (m): 3 m
 Crown spread (m): 10
 Tree height (m): 27
 Number of Trunks: 1
 Veteran Type: Ancient Trees with Less than 4 Veteran Features
 Tree Form: Lapsed Pollard
 Standing/Fallen: Standing
 Live Growth: Live growth occupies 25%-50% of current crown outline
 Crown Loss: Tree has shed > 75% of likely peak crown framework
 Shade: Heavy Shade - shaded from above and one or two sides
 Epicormic Growth: Crown
 Past Management: None known

Condition / Context:

Tree Habitat

Bark Condition:	Base	Rot:	Brown
Bark Flux:	None	Deadwood Attached:	1
Split Limbs :	0	Deadwood Fallen:	0
Tears:	0	Holes:	6
Scars:	0	Hollowing in Crown:	1
Lightning:	None	Hollowing - Top:	Moderate hollowing 15 - 30cm
Live Stubs:	0	Hollowing - Mid:	Moderate hollowing 15 - 30cm
Water Pockets:	0	Hollowing - Base:	Apparently solid trunk

12

Tree Associates

Invertebrate species	4	Frass Large exit boreholes	Small exit boreholes	Spider web
Fungi species	0			
Epiphyte species	4	Bramble Herb-	Galium Holly	Nettle
Vertebrate species	1	Foraging birds		

5

Tree 28 (Sgl/509544) *Salix alba*
White Willow

Easting: 544646
Northing: 257825

Tree

Girth @ 1.30m: 550 cm
 Bole Height (m): 2.5 m
 Crown spread (m): 18
 Tree height (m): 15
 Number of Trunks: 1
 Veteran Type: Ancient Trees with Less than 4 Veteran Features
 Tree Form: Managed Pollard / Repollard
 Standing/Fallen: Standing
 Live Growth: Live growth occupies > 50% of current outline
 Crown Loss: Tree has shed > 75% of likely peak crown framework
 Shade: Unshaded - unshaded at present
 Epicormic Growth: Stem & Crown
 Past Management: Pollarding

Condition / Context:

Tree Habitat

Bark Condition:	Base & Stem	Rot:	Brown
Bark Flux:	None	Deadwood Attached:	0
Split Limbs :	0	Deadwood Fallen:	0
Tears:	0	Holes:	2
Scars:	0	Hollowing in Crown:	0
Lightning:	None	Hollowing - Top:	Advanced hollowing
Live Stubs:	0	Hollowing - Mid:	Moderate hollowing 15 - 30cm
Water Pockets:	0	Hollowing - Base:	Moderate hollowing 15 - 30cm

12

Tree Associates

Invertebrate species	4	Frass Large exit boreholes	Small exit boreholes	Spider web
Fungi species	1	Bracket (deadwood)		
Epiphyte species	2	Grass Nettle		
Vertebrate species	1	Foraging birds		

5

Tree 29 (Sgl/513984) *Salix fragilis*
Crack Willow

Easting: 544683
Northing: 257871

Tree

Girth @ 1.30m: 360 cm
 Bole Height (m): NA
 Crown spread (m): 8
 Tree height (m): 16
 Number of Trunks: 1
 Veteran Type: Non Ancient Veterans
 Tree Form: Managed Pollard / Repollard
 Standing/Fallen: Partial fallen
 Live Growth: Live growth occupies 25%-50% of current crown outline
 Crown Loss: Tree has shed > 75% of likely peak crown framework
 Shade: Heavy Shade - shaded from above and one or two sides
 Epicormic Growth: Stem
 Past Management: Pollarding

Condition / Context:

Tree Habitat

Bark Condition:	None present	Rot:	None observed
Bark Flux:	None	Deadwood Attached:	0
Split Limbs :	0	Deadwood Fallen:	0
Tears:	0	Holes:	0
Scars:	1	Hollowing in Crown:	0
Lightning:	None	Hollowing - Top:	Apparently solid trunk
Live Stubs:	0	Hollowing - Mid:	Apparently solid trunk
Water Pockets:	0	Hollowing - Base:	Apparently solid trunk

3

Tree Associates

Invertebrate species	1	Spider web
Fungi species	0	
Epiphyte species	1	Ivy
Vertebrate species	2	Bird nest Foraging birds

3

Tree 30 (Sgl/509576) *Salix fragilis*
Crack Willow

Easting: 544668
Northing: 257790

Tree

Girth @ 1.30m: 348 cm
Bole Height (m): NA
Crown spread (m): 17
Tree height (m): 19
Number of Trunks: 1
Veteran Type: Non Ancient Veterans
Tree Form: Maiden Tree
Standing/Fallen: Standing
Live Growth: Live growth occupies 25%-50% of current crown outline
Crown Loss: Tree has shed 50%-75% of likely peak crown framework
Shade: Light Shade - shaded on one or two sides but not from above
Epicormic Growth: None present
Past Management: Other Aboricultural Work

Condition / Context:
Crown reduction

Tree Habitat

Bark Condition:	Crown	Rot:	None observed
Bark Flux:	None	Deadwood Attached:	2
Split Limbs :	0	Deadwood Fallen:	22
Tears:	0	Holes:	0
Scars:	0	Hollowing in Crown:	0
Lightning:	None	Hollowing - Top:	Apparently solid trunk
Live Stubs:	0	Hollowing - Mid:	Apparently solid trunk
Water Pockets:	0	Hollowing - Base:	Apparently solid trunk

9

Tree Associates

Invertebrate species	2	Small exit boreholes Spider web
Fungi species	1	Bracket- Ganoderma spp.
Epiphyte species	3	Ivy Lichen Nettle
Vertebrate species	1	Foraging birds

4

Tree 31 (Sgl/509556) *Salix alba*
White Willow

Easting: 544658
Northing: 257783

Tree

Girth @ 1.30m: 380 cm
 Bole Height (m): 3 m
 Crown spread (m): 13
 Tree height (m): 20
 Number of Trunks: 1
 Veteran Type: Non Ancient Veterans
 Tree Form: Managed Pollard / Repollard
 Standing/Fallen: Standing
 Live Growth: Live growth occupies 25%-50% of current crown outline
 Crown Loss: Tree has shed 50%-75% of likely peak crown framework
 Shade: Light Shade - shaded on one or two sides but not from above
 Epicormic Growth: None present
 Past Management: Other Aboricultural Work

Condition / Context:
Crown Reduction.

Tree Habitat

11

Bark Condition:	Crown	Rot:	White
Bark Flux:	Wet	Deadwood Attached:	0
Split Limbs :	1	Deadwood Fallen:	0
Tears:	1	Holes:	3
Scars:	0	Hollowing in Crown:	1
Lightning:	None	Hollowing - Top:	Moderate hollowing 15 - 30cm
Live Stubs:	2	Hollowing - Mid:	Moderate hollowing 15 - 30cm
Water Pockets:	0	Hollowing - Base:	Minor hollowing <15cm

Tree Associates

3

Invertebrate species	2	Frass Spider web
Fungi species	0	
Epiphyte species	2	Lichen Nettle
Vertebrate species	1	Foraging birds

Tree 32 (Sgl/509572) *Salix alba*
White Willow

Easting: 544683
Northing: 257755

Tree

Girth @ 1.30m: 462 cm
 Bole Height (m): 3 m
 Crown spread (m): 11
 Tree height (m): 16
 Number of Trunks: 1
 Veteran Type: Ancient Trees with Less than 4 Veteran Features
 Tree Form: Managed Pollard / Repollard
 Standing/Fallen: Standing
 Live Growth: Live growth occupies > 50% of current outline
 Crown Loss: Tree has shed > 75% of likely peak crown framework
 Shade: Unshaded - unshaded at present
 Epicormic Growth: None present
 Past Management: Pollarding

Condition / Context:

Tree Habitat

Bark Condition:	Crown	Rot:	White
Bark Flux:	None	Deadwood Attached:	1
Split Limbs :	2	Deadwood Fallen:	6
Tears:	0	Holes:	6
Scars:	1	Hollowing in Crown:	1
Lightning:	None	Hollowing - Top:	Minor hollowing <15cm
Live Stubs:	1	Hollowing - Mid:	Minor hollowing <15cm
Water Pockets:	0	Hollowing - Base:	Minor hollowing <15cm

13

Tree Associates

Invertebrate species	3	Large exit boreholes	Small exit boreholes	Spider web	
Fungi species	0				
Epiphyte species	4	Cow parsley	Ivy	Lichen	Nettle
Vertebrate species	1	Foraging birds			

4

Tree 33 (Sgl/509728) *Salix sp.*
Willow sp.

Easting: 544646
Northing: 257715

Tree

Girth @ 1.30m: 345 cm
 Bole Height (m): NA
 Crown spread (m): 11
 Tree height (m): 13
 Number of Trunks: 1
 Veteran Type: Non Ancient Veterans
 Tree Form: Phoenix Regeneration
 Standing/Fallen: Fallen (partially)
 Live Growth: Live growth occupies 25%-50% of current crown outline
 Crown Loss: Tree has shed > 75% of likely peak crown framework
 Shade: Unshaded - unshaded at present
 Epicormic Growth: None present
 Past Management: Pollarding

Condition / Context:

Tree Habitat

Bark Condition:	Crown	Rot:	Brown
Bark Flux:	None	Deadwood Attached:	4
Split Limbs :	0	Deadwood Fallen:	0
Tears:	0	Holes:	1
Scars:	0	Hollowing in Crown:	3
Lightning:	None	Hollowing - Top:	Shell
Live Stubs:	1	Hollowing - Mid:	Shell
Water Pockets:	0	Hollowing - Base:	Shell

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Tree Associates

Invertebrate species	5	Frass Large exit boreholes	Small exit boreholes	Spider web
Fungi species	2	Bracket- Ganoderma	Bracket- Unknown	
Epiphyte species	9	Lichen (2)	Grass	Thistle (2)
Vertebrate species	1	Nettle Herb-	(Galium)	Moss (2)
		Foraging birds		

7

Tree 34 (Sgl/509716) *Salix alba*
White Willow

Easting: 544656
Northing: 257690

Tree

Girth @ 1.30m: 291 cm
 Bole Height (m): 6 m
 Crown spread (m): 6
 Tree height (m): 11
 Number of Trunks: 1
 Veteran Type: Non Ancient Veterans
 Tree Form: Tiered Lapsed Pollard
 Standing/Fallen: Standing
 Live Growth: Live growth occupies > 50% of current outline
 Crown Loss: Tree has shed > 75% of likely peak crown framework
 Shade: Unshaded - unshaded at present
 Epicormic Growth: Stem & Crown
 Past Management: Pollarding

Condition / Context:

Tree Habitat

Bark Condition:	Base, Stem & Crown	Rot:	White
Bark Flux:	None	Deadwood Attached:	5
Split Limbs :	0	Deadwood Fallen:	1
Tears:	0	Holes:	4
Scars:	0	Hollowing in Crown:	1
Lightning:	None	Hollowing - Top:	Apparently solid trunk
Live Stubs:	0	Hollowing - Mid:	Advanced hollowing
Water Pockets:	0	Hollowing - Base:	Advanced hollowing

15

Tree Associates

Invertebrate species	4	Frass Large exit boreholes	Small exit boreholes	Spider web
Fungi species	0			
Epiphyte species	5	Herb-(Galium)	Cow parsley	Dead nettle
Vertebrate species	1	Foraging birds		

5

Tree 35 (Sgl/509552) *Crataegus sp.*
Hawthorn sp.

Easting: 544648
Northing: 257771

Tree

Girth @ 1.30m: 314 cm
 Bole Height (m): NA
 Crown spread (m): 9
 Tree height (m): 9
 Number of Trunks: 4
 Veteran Type: Ancient Trees with Less than 4 Veteran Features
 Tree Form: Maiden Tree
 Standing/Fallen: Standing
 Live Growth: Live growth occupies > 50% of current outline
 Crown Loss: Tree has shed 25%-50% of likely peak crown framework
 Shade: Unshaded - unshaded at present
 Epicormic Growth: None present
 Past Management: None known

Condition / Context:

Tree Habitat

Bark Condition:	None present	Rot:	None observed
Bark Flux:	None	Deadwood Attached:	0
Split Limbs :	0	Deadwood Fallen:	0
Tears:	0	Holes:	0
Scars:	0	Hollowing in Crown:	0
Lightning:	None	Hollowing - Top:	Apparently solid trunk
Live Stubs:	0	Hollowing - Mid:	Apparently solid trunk
Water Pockets:	0	Hollowing - Base:	Apparently solid trunk

3

Tree Associates

Invertebrate species	1	Spider web
Fungi species	0	
Epiphyte species	3	Ivy Lichen (2)
Vertebrate species	1	Foraging birds

3

Tree 36 (Sgl/509712) *Crataegus sp.*
Hawthorn sp.

Easting: 544662
Northing: 257678

Tree

Girth @ 1.30m: 250 cm
Bole Height (m): 1.5m
Crown spread (m): 7
Tree height (m): 4
Number of Trunks: 4
Veteran Type: Ancient Trees with Less than 4 Veteran Features
Tree Form: Maiden Tree
Standing/Fallen: Standing
Live Growth: Live growth occupies < 25% of current crown outline
Crown Loss: Tree has shed > 75% of likely peak crown framework
Shade: Light Shade - shaded on one or two sides but not from above
Epicormic Growth: None present
Past Management: None known

Condition / Context:

Tree Habitat

Bark Condition:	None present	Rot:	None observed
Bark Flux:	None	Deadwood Attached:	0
Split Limbs :	0	Deadwood Fallen:	0
Tears:	0	Holes:	0
Scars:	0	Hollowing in Crown:	0
Lightning:	None	Hollowing - Top:	Apparently solid trunk
Live Stubs:	0	Hollowing - Mid:	Apparently solid trunk
Water Pockets:	0	Hollowing - Base:	Apparently solid trunk

3

Tree Associates

Invertebrate species	0	
Fungi species	0	
Epiphyte species	1	Ivy
Vertebrate species	1	Foraging birds

2

Tree 37 (Sgl/509668) *Salix fragilis*
Crack Willow

Easting: 544732
Northing: 257637

Tree

Girth @ 1.30m: 346 cm
 Bole Height (m): 4.5 m
 Crown spread (m): 10
 Tree height (m): 16
 Number of Trunks: 1
 Veteran Type: Non Ancient Veterans
 Tree Form: Tiered Pollard
 Standing/Fallen: Standing
 Live Growth: Live growth occupies > 50% of current outline
 Crown Loss: Tree has shed > 75% of likely peak crown framework
 Shade: Light Shade - shaded on one or two sides but not from above
 Epicormic Growth: Stem
 Past Management: Pollarding

Condition / Context:

Tree Habitat

Bark Condition:	None present	Rot:	White
Bark Flux:	None	Deadwood Attached:	10
Split Limbs :	3	Deadwood Fallen:	2
Tears:	3	Holes:	0
Scars:	0	Hollowing in Crown:	0
Lightning:	None	Hollowing - Top:	Advanced hollowing
Live Stubs:	0	Hollowing - Mid:	Moderate hollowing 15 - 30cm
Water Pockets:	0	Hollowing - Base:	Minor hollowing <15cm

13

Tree Associates

Invertebrate species	4	Frass Small exit boreholes Spider web Spider web (funnel)
Fungi species	0	
Epiphyte species	4	Herb-Galium Ivy Nettle Lichen
Vertebrate species	1	Foraging birds

5

Tree 38 (Sgl/509664) *Salix fragilis*
Crack Willow

Easting: 544726
Northing: 257641

Tree

Girth @ 1.30m: 274 cm
 Bole Height (m): NA
 Crown spread (m): 11
 Tree height (m): 11
 Number of Trunks: 1
 Veteran Type: Non Ancient Veterans
 Tree Form: Shattered/fractured stump (< 4m height)
 Standing/Fallen: Standing
 Live Growth: Live growth occupies 25%-50% of current crown outline
 Crown Loss: Tree has shed > 75% of likely peak crown framework
 Shade: Light Shade - shaded on one or two sides but not from above
 Epicormic Growth: Crown
 Past Management: None known

Condition / Context:

Tree Habitat

Bark Condition:	Base & Stem	Rot:	White
Bark Flux:	None	Deadwood Attached:	0
Split Limbs :	0	Deadwood Fallen:	3
Tears:	0	Holes:	0
Scars:	1	Hollowing in Crown:	0
Lightning:	None	Hollowing - Top:	Shell
Live Stubs:	0	Hollowing - Mid:	Shell
Water Pockets:	0	Hollowing - Base:	Shell

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Tree Associates

Invertebrate species	5	Frass Large exit boreholes	Small exit boreholes	Spider web
Fungi species	0			
Epiphyte species	1	Lichen(2)		
Vertebrate species	1	Foraging birds		

4

Tree 39 (Sgl/509696) *Salix fragilis*
Crack Willow

Easting: 544706
Northing: 257655

Tree

Girth @ 1.30m: 289 cm
 Bole Height (m): 4m
 Crown spread (m): 15
 Tree height (m): 16
 Number of Trunks: 1
 Veteran Type: Non Ancient Veterans
 Tree Form: Lapsed Pollard
 Standing/Fallen: Standing
 Live Growth: Live growth occupies 25%-50% of current crown outline
 Crown Loss: Tree has shed < 25% of likely peak crown framework
 Shade: Unshaded - unshaded at present
 Epicormic Growth: Crown
 Past Management: None known

Condition / Context:

Tree Habitat

Bark Condition:	Base, Stem & Crown	Rot:	White
Bark Flux:	None	Deadwood Attached:	9
Split Limbs :	3	Deadwood Fallen:	10
Tears:	0	Holes:	3
Scars:	2	Hollowing in Crown:	0
Lightning:	None	Hollowing - Top:	Apparently solid trunk
Live Stubs:	0	Hollowing - Mid:	Shell
Water Pockets:	0	Hollowing - Base:	Moderate hollowing 15 - 30cm

15

Tree Associates

Invertebrate species	4	Frass Large exit boreholes	Small exit boreholes	Spider web
Fungi species	1	Skin-like (crown) saprophyte		
Epiphyte species	8	Herb- Galium	Grass	Cow parsley
Vertebrate species	1	Moss(2) Nettle Lichen (2)		
		Foraging birds		

7

Tree 40 (Sgl/509744) *Salix sp.*
Willow sp.

Easting: 544698
Northing: 257685

Tree

Girth @ 1.30m: 415 cm
 Bole Height (m): NA
 Crown spread (m): 8
 Tree height (m): 6
 Number of Trunks: null
 Veteran Type: Non Ancient Veterans
 Tree Form: Phoenix Regeneration
 Standing/Fallen: Fallen
 Live Growth: Live growth occupies < 25% of current crown outline
 Crown Loss: Tree has shed > 75% of likely peak crown framework
 Shade: Light Shade - shaded on one or two sides but not from above
 Epicormic Growth: Crown
 Past Management: Pollarding

Condition / Context:

Tree Habitat

Bark Condition:	None present	Rot:	Brown
Bark Flux:	None	Deadwood Attached:	0
Split Limbs :	0	Deadwood Fallen:	4
Tears:	0	Holes:	5
Scars:	0	Hollowing in Crown:	1
Lightning:	None	Hollowing - Top:	Apparently solid trunk
Live Stubs:	1	Hollowing - Mid:	Shell
Water Pockets:	0	Hollowing - Base:	Shell

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Tree Associates

Invertebrate species	5	Frass Large exit boreholes	Small exit boreholes	Galleries
Fungi species	0			
Epiphyte species	11	Ivy Lichen (2)	Moss (3)	Nettle Grass Herb-(Galium) Herb-
Vertebrate species	1	Foraging birds		

6

Tree 41 (Sgl/509740) *Salix fragilis*
Crack Willow

Easting: 544693
Northing: 257706

Tree

Girth @ 1.30m: 395 cm
 Bole Height (m): NA
 Crown spread (m): 12
 Tree height (m): 7
 Number of Trunks: 1
 Veteran Type: Non Ancient Veterans
 Tree Form: Phoenix Regeneration
 Standing/Fallen: Fallen
 Live Growth: Live growth occupies > 50% of current outline
 Crown Loss: Tree has shed > 75% of likely peak crown framework
 Shade: Unshaded - unshaded at present
 Epicormic Growth: Crown
 Past Management: None known

Condition / Context:

Tree Habitat

Bark Condition:	Base & Crown	Rot:	White
Bark Flux:	None	Deadwood Attached:	8
Split Limbs :	2	Deadwood Fallen:	4
Tears:	0	Holes:	1
Scars:	0	Hollowing in Crown:	2
Lightning:	None	Hollowing - Top:	Shell
Live Stubs:	1	Hollowing - Mid:	Shell
Water Pockets:	0	Hollowing - Base:	Shell

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Tree Associates

Invertebrate species	4	Frass Large exit boreholes	Small exit boreholes	Spider web
Fungi species	2	Bracket- deadwood	Bracket- unknown	
Epiphyte species	7	Grass Lichen	Nettle Herb-Galium)	Moss Herb- (Bellis)
Vertebrate species	1	Foraging birds		

7

Tree 42 (Sgl/509736) *Salix sp.*
Willow sp.

Easting: 544694
Northing: 257725

Tree

Girth @ 1.30m: 428 cm
Bole Height (m): 2.5 m
Crown spread (m): 9
Tree height (m): 12
Number of Trunks: 1
Veteran Type: Non Ancient Veterans
Tree Form: Managed Pollard / Repollard
Standing/Fallen: Standing
Live Growth: Live growth occupies 25%-50% of current crown outline
Crown Loss: Tree has shed > 75% of likely peak crown framework
Shade: Unshaded - unshaded at present
Epicormic Growth: Crown
Past Management: Pollarding

Condition / Context:

Tree Habitat

Bark Condition:	None present	Rot:	Brown
Bark Flux:	None	Deadwood Attached:	0
Split Limbs :	0	Deadwood Fallen:	0
Tears:	0	Holes:	1
Scars:	0	Hollowing in Crown:	1
Lightning:	None	Hollowing - Top:	Shell
Live Stubs:	0	Hollowing - Mid:	Shell
Water Pockets:	0	Hollowing - Base:	Shell

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Tree Associates

Invertebrate species	5	Frass Large exit boreholes	Small exit boreholes	Spider web
Fungi species	0			
Epiphyte species	4	Cow parsley	Herb- (Galium)	Lichen (2)
Vertebrate species	1	Foraging birds		

5

Tree 43 (Sgl/509760) *Salix fragilis*
Crack Willow

Easting: 544708
Northing: 257723

Tree

Girth @ 1.30m: 355 cm
Bole Height (m): 3.5 m
Crown spread (m): 13
Tree height (m): 13
Number of Trunks: 1
Veteran Type: Non Ancient Veterans
Tree Form: Managed Pollard / Repollard
Standing/Fallen: Standing
Live Growth: Live growth occupies > 50% of current outline
Crown Loss: Tree has shed > 75% of likely peak crown framework
Shade: Unshaded - unshaded at present
Epicormic Growth: Stem & Crown
Past Management: Pollarding

Condition / Context:

Tree Habitat

Bark Condition:	Stem	Rot:	Brown
Bark Flux:	None	Deadwood Attached:	null
Split Limbs :	null	Deadwood Fallen:	null
Tears:	null	Holes:	1
Scars:	null	Hollowing in Crown:	1
Lightning:	None	Hollowing - Top:	Moderate hollowing 15 - 30cm
Live Stubs:	null	Hollowing - Mid:	Advanced hollowing
Water Pockets:		Hollowing - Base:	Advanced hollowing

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Tree Associates

Fungi species 1
Vertebrate species 1
Epiphyte species 0
Invertebrate species 3

3

Tree 44 (Sgl/510052) *Crataegus sp.*
Hawthorn sp.

Easting: 544749
Northing: 257696

Tree

Girth @ 1.30m: 420 cm
 Bole Height (m): NA
 Crown spread (m): 7
 Tree height (m): 9
 Number of Trunks: 5
 Veteran Type: Ancient Trees with Less than 4 Veteran Features
 Tree Form: Maiden Tree
 Standing/Fallen: Standing
 Live Growth: Live growth occupies > 50% of current outline
 Crown Loss: Tree has shed 25%-50% of likely peak crown framework
 Shade: Light Shade - shaded on one or two sides but not from above
 Epicormic Growth: None present
 Past Management: None known

Condition / Context:

Tree Habitat

3

Bark Condition:	Base & Crown	Rot:	None observed
Bark Flux:	None	Deadwood Attached:	0
Split Limbs :	0	Deadwood Fallen:	0
Tears:	0	Holes:	0
Scars:	3	Hollowing in Crown:	0
Lightning:	None	Hollowing - Top:	Apparently solid trunk
Live Stubs:	0	Hollowing - Mid:	Apparently solid trunk
Water Pockets:	0	Hollowing - Base:	Apparently solid trunk

Tree Associates

3

Invertebrate species	2	Spider web	Small exit boreholes
Fungi species	0		
Epiphyte species	3	Ivy Lichen (2)	
Vertebrate species	1	Foraging birds	

Tree 45 (Sgl/510788) *Salix sp.*
Willow sp.

Easting: 544843
Northing: 257487

Tree

Girth @ 1.30m: 535 cm
 Bole Height (m): 4 m
 Crown spread (m): 8
 Tree height (m): 7
 Number of Trunks: 2 (at 0.5m)
 Veteran Type: Ancient / Veteran
 Tree Form: Managed Pollard / Repollard
 Standing/Fallen: Standing
 Live Growth: Live growth occupies 25%-50% of current crown outline
 Crown Loss: Tree has shed > 75% of likely peak crown framework
 Shade: Unshaded - unshaded at present
 Epicormic Growth: Crown
 Past Management: Pollarding

Condition / Context:

Tree Habitat

17

Bark Condition:	Stem	Rot:	Brown
Bark Flux:	None	Deadwood Attached:	0
Split Limbs :	0	Deadwood Fallen:	0
Tears:	0	Holes:	4
Scars:	1	Hollowing in Crown:	0
Lightning:	None	Hollowing - Top:	Advanced hollowing
Live Stubs:	0	Hollowing - Mid:	Shell
Water Pockets:	0	Hollowing - Base:	Shell

Tree Associates

5

Invertebrate species	5	Frass Large exit boreholes	Small exit boreholes	Spider web
Fungi species	2	Skin-like (2) crown saprophyte		
Epiphyte species	2	Bramble Ivy		
Vertebrate species	1	Foraging birds		

Tree 46 (Sgl/510784) *Salix sp.*
Willow sp.

Easting: 544826
Northing: 257473

Tree

Girth @ 1.30m: 471 cm
 Bole Height (m): 3.5 m
 Crown spread (m): 5
 Tree height (m): 6
 Number of Trunks: 1
 Veteran Type: Ancient / Veteran
 Tree Form: Managed Pollard / Repollard
 Standing/Fallen: Standing
 Live Growth: Live growth occupies > 50% of current outline
 Crown Loss: Tree has shed > 75% of likely peak crown framework
 Shade: Light Shade - shaded on one or two sides but not from above
 Epicormic Growth: Crown
 Past Management: Pollarding

Condition / Context:

Tree Habitat

Bark Condition:	Base	Rot:	White
Bark Flux:	None	Deadwood Attached:	0
Split Limbs :	0	Deadwood Fallen:	0
Tears:	0	Holes:	0
Scars:	0	Hollowing in Crown:	0
Lightning:	None	Hollowing - Top:	Advanced hollowing
Live Stubs:	0	Hollowing - Mid:	Advanced hollowing
Water Pockets:	0	Hollowing - Base:	Advanced hollowing

13

Tree Associates

Invertebrate species	4	Frass Small exit boreholes Spider web Spider web (funnel)
Fungi species	0	
Epiphyte species	1	Ivy
Vertebrate species	1	Foraging birds

4

Tree 47 (Sgl/510840) *Salix fragilis*
Crack Willow

Easting: 544824
Northing: 257434

Tree

Girth @ 1.30m: 340 cm
Bole Height (m): 2.5m
Crown spread (m): 11
Tree height (m): 13
Number of Trunks: 1
Veteran Type: Non Ancient Veterans
Tree Form: Lapsed Pollard
Standing/Fallen: Standing
Live Growth: Live growth occupies 25%-50% of current crown outline
Crown Loss: Tree has shed > 75% of likely peak crown framework
Shade: Close Shade - shaded on three or four sides, not from above
Epicormic Growth: None present
Past Management: None known

Condition / Context:

Tree Habitat

Bark Condition:	None present	Rot:	None observed
Bark Flux:	None	Deadwood Attached:	6
Split Limbs :	1	Deadwood Fallen:	4
Tears:	0	Holes:	4
Scars:	0	Hollowing in Crown:	0
Lightning:	None	Hollowing - Top:	Apparently solid trunk
Live Stubs:	0	Hollowing - Mid:	Minor hollowing <15cm
Water Pockets:	0	Hollowing - Base:	Apparently solid trunk

9

Tree Associates

Invertebrate species	2	Spider web Spider web (funnel)
Fungi species	0	
Epiphyte species	1	Ivy
Vertebrate species	1	Foraging birds

3

Tree 48 (Sgl/510764) *Salix sp.*
Willow sp.

Easting: 544815
Northing: 257419

Tree

Girth @ 1.30m: 375 cm
 Bole Height (m): 2 m
 Crown spread (m): 4
 Tree height (m): 5
 Number of Trunks: 1
 Veteran Type: Premature Candidate Veteran
 Tree Form: Managed Pollard / Repollard
 Standing/Fallen: Standing
 Live Growth: Live growth occupies 25%-50% of current crown outline
 Crown Loss: Tree has shed > 75% of likely peak crown framework
 Shade: Close Shade - shaded on three or four sides, not from above
 Epicormic Growth: Crown
 Past Management: Pollarding

Condition / Context:

Tree Habitat

Bark Condition:	Base	Rot:	None observed
Bark Flux:	None	Deadwood Attached:	0
Split Limbs :	0	Deadwood Fallen:	2
Tears:	0	Holes:	0
Scars:	0	Hollowing in Crown:	0
Lightning:	None	Hollowing - Top:	Apparently solid trunk
Live Stubs:	0	Hollowing - Mid:	Minor hollowing <15cm
Water Pockets:	0	Hollowing - Base:	Minor hollowing <15cm

6

Tree Associates

Invertebrate species	4	Large exit boreholes	Small exit boreholes	Spider web	Spider
Fungi species	0				
Epiphyte species	7	Bramble	Ivy	Lichen	Moss
Vertebrate species	1	Nettle	Herb-(Geum)	Herb-(Ground	
		Foraging birds			

6

Tree 49 (Sgl/510744) *Salix sp.*
Willow sp.

Easting: 544807

Northing: 257407

Tree

Girth @ 1.30m: 435 cm
 Bole Height (m): 2 m
 Crown spread (m): 7
 Tree height (m): 7
 Number of Trunks: 1
 Veteran Type: Non Ancient Veterans
 Tree Form: Managed Pollard / Repollard
 Standing/Fallen: Standing
 Live Growth: Live growth occupies > 50% of current outline
 Crown Loss: Tree has shed > 75% of likely peak crown framework
 Shade: Light Shade - shaded on one or two sides but not from above
 Epicormic Growth: None present
 Past Management: Pollarding

Condition / Context:

Tree Habitat

10

Bark Condition:	Base	Rot:	White
Bark Flux:	None	Deadwood Attached:	0
Split Limbs :	0	Deadwood Fallen:	0
Tears:	0	Holes:	2
Scars:	1	Hollowing in Crown:	1
Lightning:	None	Hollowing - Top:	Moderate hollowing 15 - 30cm
Live Stubs:	0	Hollowing - Mid:	Moderate hollowing 15 - 30cm
Water Pockets:	0	Hollowing - Base:	Apparently solid trunk

Tree Associates

4

Invertebrate species	4	Frass Small exit boreholes Spider web Spider web (funnel)
Fungi species	0	
Epiphyte species	2	Ivy Moss
Vertebrate species	1	Foraging birds

Tree 50 (Sgl/510728) *Salix sp.*
Willow sp.

Easting: 544803
Northing: 257397

Tree

Girth @ 1.30m: 400 cm
 Bole Height (m): NA
 Crown spread (m): 15
 Tree height (m): 17
 Number of Trunks: 1
 Veteran Type: Non Ancient Veterans
 Tree Form: Lapsed Pollard
 Standing/Fallen: Standing
 Live Growth: Live growth occupies 25%-50% of current crown outline
 Crown Loss: Tree has shed > 75% of likely peak crown framework
 Shade: Light Shade - shaded on one or two sides but not from above
 Epicormic Growth: None present
 Past Management: None known

Condition / Context:

Tree Habitat

11

Bark Condition:	Base, Stem & Crown	Rot:	White
Bark Flux:	None	Deadwood Attached:	0
Split Limbs :	0	Deadwood Fallen:	0
Tears:	0	Holes:	0
Scars:	0	Hollowing in Crown:	1
Lightning:	None	Hollowing - Top:	Moderate hollowing 15 - 30cm
Live Stubs:	0	Hollowing - Mid:	Moderate hollowing 15 - 30cm
Water Pockets:	0	Hollowing - Base:	Moderate hollowing 15 - 30cm

Tree Associates

5

Fungi species	0	
Vertebrate species	1	Foraging birds
Invertebrate species	4	Frass Large exit boreholes Small exit boreholes Spider web
Epiphyte species	5	Ivy Lichen Moss Nettle Grass

Tree 51 (Sgl/510724) *Salix sp.*
Willow sp.

Easting: 544803
Northing: 257394

Tree

Girth @ 1.30m: 400 cm
 Bole Height (m): NA
 Crown spread (m): 14
 Tree height (m): 5
 Number of Trunks: 1
 Veteran Type: Non Ancient Veterans
 Tree Form: Phoenix Regeneration
 Standing/Fallen: Fallen
 Live Growth: Live growth occupies < 25% of current crown outline
 Crown Loss: Tree has shed > 75% of likely peak crown framework
 Shade: Light Shade - shaded on one or two sides but not from above
 Epicormic Growth: None present
 Past Management: None known

Condition / Context:

Tree Habitat

Bark Condition:	Base & Stem	Rot:	White
Bark Flux:	None	Deadwood Attached:	15
Split Limbs :	0	Deadwood Fallen:	8
Tears:	0	Holes:	2
Scars:	0	Hollowing in Crown:	2
Lightning:	None	Hollowing - Top:	Advanced hollowing
Live Stubs:	0	Hollowing - Mid:	Moderate hollowing 15 - 30cm
Water Pockets:	0	Hollowing - Base:	Moderate hollowing 15 - 30cm

18

Tree Associates

Invertebrate species	4	Frass Large exit boreholes	Small exit boreholes	Spider web
Fungi species	1	Bracket-	Ganoderma spp.	
Epiphyte species	9	Lichen (3)	Moss (2)	Ivy Herb-(Galium) Nettle Thistle
Vertebrate species	1	Foraging birds		

7

Tree 52 (Sgl/510472) *Salix fragilis*
Crack Willow

Easting: 544731
Northing: 257345

Tree

Girth @ 1.30m: 380 cm
Bole Height (m): 3 m
Crown spread (m): 8
Tree height (m): 8
Number of Trunks: 1
Veteran Type: Advanced Candidate Veteran
Tree Form: Managed Pollard / Repollard
Standing/Fallen: Leaning at a strong angle though apparently firmly rooted
Live Growth: Live growth occupies > 50% of current outline
Crown Loss: Tree has shed 50%-75% of likely peak crown framework
Shade: Light Shade - shaded on one or two sides but not from above
Epicormic Growth: Stem
Past Management: Pollarding

Condition / Context:

Tree 53 (Sgl/510460) *Salix fragilis*
Crack Willow

Easting: 544743

Northing: 257363

Tree

Girth @ 1.30m: 240 cm
Bole Height (m): 4.5 m
Crown spread (m): 5
Tree height (m): 10
Number of Trunks: 1
Veteran Type: Advanced Candidate Veteran
Tree Form: Managed Pollard / Repollard
Standing/Fallen: Standing (Minor lean)
Live Growth: Live growth occupies > 50% of current outline
Crown Loss: Tree has shed 50%-75% of likely peak crown framework
Shade: null
Epicormic Growth: None present
Past Management: None known

Condition / Context:

Tree 54 (Sgl/510444) *Salix alba*
White Willow

Easting: 544744
Northing: 257367

Tree

Girth @ 1.30m: 220 cm
Bole Height (m): NA
Crown spread (m): 6
Tree height (m): 10
Number of Trunks: 1
Veteran Type: Advanced Candidate Veteran
Tree Form: Tiered Lapsed Pollard
Standing/Fallen: Collapsed, trunk on ground: rootplate intact, attached to ground
Live Growth: Live growth occupies 25%-50% of current crown outline
Crown Loss: Tree has shed 50%-75% of likely peak crown framework
Shade: Standing
Epicormic Growth: Stem
Past Management: Pollarding

Condition / Context:

Tree 55 (Sgl/509560) *Salix fragilis*
Crack Willow

Easting: 544674
Northing: 257773

Tree

Girth @ 1.30m: 351 cm
Bole Height (m): NA
Crown spread (m): 15
Tree height (m): 20
Number of Trunks: 1
Veteran Type: Advanced Candidate Veteran
Tree Form: Maiden Tree
Standing/Fallen: Standing
Live Growth: Live growth occupies 25%-50% of current crown outline
Crown Loss: Tree has shed 25%-50% of likely peak crown framework
Shade: Unshaded - unshaded at present
Epicormic Growth: Stem
Past Management: Other Aboricultural Work

Condition / Context:
Crown reduction at 17m

Tree 57 (Sgl/509748) *Salix fragilis*
Crack Willow

Easting: 544710
Northing: 257686

Tree

Girth @ 1.30m: 266 cm
Bole Height (m): 3 m
Crown spread (m): 15
Tree height (m): 12
Number of Trunks: 1
Veteran Type: Advanced Candidate Veteran
Tree Form: Managed Pollard / Repollard
Standing/Fallen: Standing
Live Growth: Live growth occupies > 50% of current outline
Crown Loss: Tree has shed 50%-75% of likely peak crown framework
Shade: Unshaded - unshaded at present
Epicormic Growth: Stem
Past Management: Pollarding

Condition / Context:

Tree 58 (Sgl/509708) *Salix fragilis*
Crack Willow

Easting: 544674
Northing: 257663

Tree

Girth @ 1.30m: 290 cm
Bole Height (m): 2 m
Crown spread (m): 8
Tree height (m): 9
Number of Trunks: 1
Veteran Type: Advanced Candidate Veteran
Tree Form: Managed Pollard / Repollard
Standing/Fallen: Standing
Live Growth: Live growth occupies 25%-50% of current crown outline
Crown Loss: Tree has shed > 75% of likely peak crown framework
Shade: Unshaded - unshaded at present
Epicormic Growth: Stem
Past Management: Pollarding

Condition / Context:

Tree 59 (Sgl/510224) *Salix alba*
White Willow

Easting: 544673
Northing: 257499

Tree

Girth @ 1.30m: 360 cm
Bole Height (m): NA
Crown spread (m): 15
Tree height (m): 22
Number of Trunks: 1
Veteran Type: Advanced Candidate Veteran
Tree Form: Maiden Tree
Standing/Fallen: Standing
Live Growth: Live growth occupies > 50% of current outline
Crown Loss: Tree has shed < 25% of likely peak crown framework
Shade: Light Shade - shaded on one or two sides but not from above
Epicormic Growth: Crown
Past Management: Other

Condition / Context:

Vet Survey

Tree 60 (Sgl/510288) Populus nigra 'Italica'
Lomardy Poplar

Easting: 544751
Northing: 257512

Tree

Girth @ 1.30m: 456 cm
 Bole Height (m):
 Crown spread (m): 10
 Tree height (m): 31
 Number of Trunks: 1
 Veteran Type: Ancient Trees with Less than 4 Veteran Features
 Tree Form: Maiden Tree
 Standing/Fallen: Standing
 Live Growth: Live growth occupies > 50% of current outline
 Crown Loss: Tree has shed < 25% of likely peak crown framework
 Shade: Unshaded - unshaded at present
 Epicormic Growth: Stem & Crown
 Past Management: None known

Tree Habitat

Bark Condition:	Base & Stem	Rot:	Brown, Black, soil-like
Bark Flux:	Dry	Deadwood Attached:	0
Split Limbs :	1	Deadwood Fallen:	0
Tears:	3	Holes:	2
Scars:	2	Hollowing in Crown:	0
Lightning:	None	Hollowing - Top:	Apparently solid trunk
Live Stubs:	0	Hollowing - Mid:	Minor hollowing <15cm
Water Pockets:	0	Hollowing - Base:	Minor hollowing <15cm

8

Tree Associates

Fungi species	0	
Vertebrate species	1	Foraging bird
Epiphyte species	2	Lichen, moss
Invertebrate species	2	Spider webs Exit boreholes/Frass

3

Tree 61 (Sgl/510216) *Salix alba*
White Willow

Easting: 544667
Northing: 257552

Tree

Girth @ 1.30m: 300 cm
Bole Height (m): NA
Crown spread (m): 15
Tree height (m): 23
Number of Trunks: 1
Veteran Type: Advanced Candidate Veteran
Tree Form: Maiden Tree
Standing/Fallen: Standing
Live Growth: Live growth occupies > 50% of current outline
Crown Loss: Tree has shed 25%-50% of likely peak crown framework
Shade: Light Shade - shaded on one or two sides but not from above
Epicormic Growth: Crown
Past Management: Other Arboricultural Work

Condition / Context:
Crown reduction

Tree 62 (Sgl/509780) Crataegus sp.
Hawthorn sp.

Easting: 544633
Northing: 257716

Tree

Girth @ 1.30m: 270 cm
Bole Height (m): NA
Crown spread (m): 10
Tree height (m): 7
Number of Trunks: 3
Veteran Type: Ancient Trees with Less than 4 Veteran Features
Tree Form: Maiden Tree
Standing/Fallen: Standing
Live Growth: Live growth occupies < 25% of current crown outline
Crown Loss: Tree has shed 50%-75% of likely peak crown framework
Shade: Light Shade - shaded on one or two sides but not from above
Epicormic Growth: None present
Past Management: Other

Tree Habitat

Bark Condition:	Base & Stem	Rot:	Brown
Bark Flux:	Dry	Deadwood Attached:	0
Split Limbs :	2	Deadwood Fallen:	0
Tears:	2	Holes:	null
Scars:	1	Hollowing in Crown:	null
Lightning:	None	Hollowing - Top:	Apparently solid trunk
Live Stubs:	null	Hollowing - Mid:	Minor hollowing <15cm
Water Pockets:		Hollowing - Base:	Minor hollowing <15cm

6

Tree Associates

Fungi species 0
Vertebrate species 1
Epiphyte species 1
Invertebrate species 1

3

Tree 63 (Sgl/510792) *Salix fragilis*
Crack Willow

Easting: 544833
Northing: 257482

Tree

Girth @ 1.30m: 262 cm
Bole Height (m): 2.5 m
Crown spread (m): 9
Tree height (m): 8
Number of Trunks: 1
Veteran Type: Advanced Candidate Veteran
Tree Form: Managed Pollard / Repollard
Standing/Fallen: Standing
Live Growth: Live growth occupies 25%-50% of current crown outline
Crown Loss: Tree has shed > 75% of likely peak crown framework
Shade: Light Shade - shaded on one or two sides but not from above
Epicormic Growth: Crown
Past Management: Pollarding

Condition / Context:

Tree 64 (Sgl/510796) *Salix sp.*
Willow sp.

Easting: 544838
Northing: 257479

Tree

Girth @ 1.30m: 220 cm
Bole Height (m): 3 m
Crown spread (m): 6
Tree height (m): 6
Number of Trunks: 1
Veteran Type: Advanced Candidate Veteran
Tree Form: Managed Pollard / Repollard
Standing/Fallen: Standing
Live Growth: Live growth occupies > 50% of current outline
Crown Loss: Tree has shed > 75% of likely peak crown framework
Shade: Light Shade - shaded on one or two sides but not from above
Epicormic Growth: Crown
Past Management: Pollarding

Condition / Context:

Tree 65 (Sgl/510664) *Salix sp.*
Willow sp.

Easting: 544770
Northing: 257359

Tree

Girth @ 1.30m: 250 cm
Bole Height (m): 2.5 m
Crown spread (m): 6
Tree height (m): 7
Number of Trunks: 1
Veteran Type: Advanced Candidate Veteran
Tree Form: Managed Pollard / Repollard
Standing/Fallen: Standing
Live Growth: Live growth occupies > 50% of current outline
Crown Loss: Tree has shed > 75% of likely peak crown framework
Shade: Close Shade - shaded on three or four sides, not from above
Epicormic Growth: None present
Past Management: Pollarding

Condition / Context:

Tree 66 (Sgl/510648) *Salix fragilis*
Crack Willow

Easting: 544759

Northing: 257358

Tree

Girth @ 1.30m: 300 cm

Bole Height (m): 2.5 m

Crown spread (m): 7

Tree height (m): 8

Number of Trunks: 1

Veteran Type: Advanced Candidate Veteran

Tree Form: Managed Pollard / Repollard

Standing/Fallen: Standing

Live Growth: Live growth occupies > 50% of current outline

Crown Loss: Tree has shed > 75% of likely peak crown framework

Shade: Light Shade - shaded on one or two sides but not from above

Epicormic Growth: None present

Past Management: Pollarding

Condition / Context:

Tree 67 (Sgl/510660) *Salix fragilis*
Crack Willow

Easting: 544766

Northing: 257354

Tree

Girth @ 1.30m: 260 cm
Bole Height (m): 2.5 m
Crown spread (m): 9
Tree height (m): 8
Number of Trunks: 1
Veteran Type: Advanced Candidate Veteran
Tree Form: Managed Pollard / Repollard
Standing/Fallen: Standing
Live Growth: Live growth occupies 25%-50% of current crown outline
Crown Loss: Tree has shed > 75% of likely peak crown framework
Shade: Close Shade - shaded on three or four sides, not from above
Epicormic Growth: None present
Past Management: Pollarding

Condition / Context:

Tree 68 (Sgl/510640) *Salix fragilis*
Crack Willow

Easting: 544753
Northing: 257343

Tree

Girth @ 1.30m: 240 cm
Bole Height (m): 2 m
Crown spread (m): 7
Tree height (m): 7
Number of Trunks: 1
Veteran Type: Advanced Candidate Veteran
Tree Form: Managed Pollard / Repollard
Standing/Fallen: Standing
Live Growth: Live growth occupies > 50% of current outline
Crown Loss: Tree has shed > 75% of likely peak crown framework
Shade: Unshaded - unshaded at present
Epicormic Growth: Stem
Past Management: Pollarding

Condition / Context:

Tree 69 (Sgl/510652) *Salix sp.*
Willow sp.

Easting: 544748
Northing: 257335

Tree

Girth @ 1.30m: 218 cm
Bole Height (m): 1.5 m
Crown spread (m): 6
Tree height (m): 6
Number of Trunks: 1
Veteran Type: Advanced Candidate Veteran
Tree Form: Managed Pollard / Repollard
Standing/Fallen: Standing
Live Growth: Live growth occupies 25%-50% of current crown outline
Crown Loss: Tree has shed > 75% of likely peak crown framework
Shade: Light Shade - shaded on one or two sides but not from above
Epicormic Growth: None present
Past Management: Pollarding

Condition / Context:

Tree 70 (Sgl/510448) *Salix fragilis*
Crack Willow

Easting: 544738

Northing: 257365

Tree

Girth @ 1.30m: 255 cm
Bole Height (m): None
Crown spread (m): 7
Tree height (m): 16
Number of Trunks: 1
Veteran Type: Advanced Candidate Veteran
Tree Form: Maiden Tree
Standing/Fallen: Standing
Live Growth: Live growth occupies > 50% of current outline
Crown Loss: Tree has shed 50%-75% of likely peak crown framework
Shade: Light Shade - shaded on one or two sides but not from above
Epicormic Growth: Crown
Past Management: Pollarding

Condition / Context:

Appendix III

Management Schedule



Tree 1 (sgl/510476)

Salix alba
White Willow

Viability

Probability of Failure from Collapse: Moderate
Probability of Failure from Decline: Low to Moderate
Vitality: moderate

Viability Score

19



Aspect 1-South East (2018).jpg

Individual Management

Management objective. Maintain as a high pollard,
via cyclical repollarding every 6 years.

Pollard - Previous pollard height.

Inspect.

Complete by: 05/2021

Complete by: 05/2021

Repeat once in every 6 year(s)

Repeat once in every 6 year(s)

Generated By

Tree 2 (sgl/510468)

Salix fragilis
Crack Willow

Viability

Probability of Failure from Collapse: Moderate to Probable

Probability of Failure from Decline: Low to Moderate

Vitality: High to moderate

Viability Score

19



2-North East (2018).JPG

Individual Management

Management objective. Maintain as a low pollard through staged reduction and thinning operations.

Reduce crown by - Specified extent. Reduce remaining poles by 2 metres.

Thin crown by - Specified extent. Remove 30% poles .

Inspect.

Complete by: 05/2019

Repeat once in every 6 year(s)

Complete by: 05/2019

Repeat once in every 3 year(s)

Complete by: 05/2020

Generated By

Tree 3 (Sgl/510464)

Salix fragilis
Crack Willow

Viability

Probability of Failure from Collapse: Moderate to Probable

Probability of Failure from Decline: ModerateHigh to

Vitality: moderate

Viability Score

18



Aspect 3-East (2018).JPG

Individual Management

Management objective. Maintain as a low pollard through staged reduction and thinning operations.

Reduce crown by - Specified extent. Reduce remaining poles by 2 metres.

Thin crown by - Specified extent. Remove 30% poles.

Climbing plant - Sever.

Inspect.

null

Complete by: 05/2019

Repeat once in every 6 year(s)

Complete by: 05/2019

Repeat once in every 3 year(s)

Complete by: 05/2019

Complete by: 05/2020

Generated By

Tree 4 (Sgl/510452)

Salix fragilis
Crack Willow

Viability

Probability of Failure from Collapse: Moderate to Probable

Probability of Failure from Decline: Moderate

Vitality: Moderate

Viability Score

17



Aspect 4-North East (2018).JPG

Individual Management

Management objective. Maintain as a low pollard through staged reduction and thinning operations.

Reduce crown by - Specified extent. Reduce remaining poles by 2 metres.

Thin crown by - Specified extent. Remove 30% poles.

Inspect.

Complete by: 05/2019

Repeat once in every 6 year(s)

Complete by: 05/2019

Repeat once in every 3 year(s)

Complete by: 05/2020

Generated By

Tree 5 (Sgl/510440)

Salix alba
White Willow

Viability

Probability of Failure from Collapse: Improbable
Probability of Failure from Decline: Probable
Vitality: Low to moderate

Viability Score

19



Aspect 5-North East (2018).JPG

Individual Management

Management objective. Maintain as a collapsed pollard/phoenix through staged reduction, thinning and plant competition operations.

Climbing plant - Sever.

Complete by: 11/2018

Thin crown by - Specified extent. Remove 30% poles.

Complete by: 05/2019

Repeat once in every 3 year(s)

Inspect.

Complete by: 05/2020

Reduce crown by - Specified extent. Reduce remaining poles by 2 metres.

Complete by: 05/2022

Repeat once in every 6 year(s)

Generated By

Tree 6 (Sgl/510436)

Salix sp.
Willow sp.

Viability

Probability of Failure from Collapse: Low to Moderate

Probability of Failure from Decline: Low to Moderate

Vitality: High to Moderate

Viability Score

21



Aspect 6-North (2018).JPG

Individual Management

Management objective. Maintain as a low pollard.

Thin crown by - Specified extent. Remove 30% poles.

Complete by: 05/2019

Repeat once in every 3 year(s)

Inspect.

Complete by: 05/2020

Generated By

Tree 7 (Sgl/510432)

Salix sp. Willow sp.

Viability

Probability of Failure from Collapse: Low

Probability of Failure from Decline: Low to Moderate

Vitality: High to moderate

Viability Score

22



Aspect 7-North (2018).JPG

Individual Management

Management objective. Maintain as a low pollard.

Climbing plant - Sever.

Complete by: 05/2019

Thin crown by - Specified extent. Remove 30% poles.

Complete by: 05/2019

Repeat once in every 3 year(s)

Inspect.

Complete by: 05/2020

Generated By

Tree 8 (Sgl/510260)

Salix alba
White Willow

Viability

Probability of Failure from Collapse: Moderate to Probable

Probability of Failure from Decline: Moderate

Vitality: Mmoderate

Viability Score

17



Aspect 8-North East (2018).JPG

Individual Management

Management objective. Reduce height through a staged reduction and monitoring of operation results.

Reduce crown by - Specified extent. By 3 metres, Complete by: 05/2019
back to its previously pruned points

Climbing plant - Sever. Complete by: 05/2020

Inspect. Complete by: 05/2020

Generated By

Tree 9 (Sgl/510232)

Salix fragilis
Crack Willow

Viability

Probability of Failure from Collapse: Low to Moderate

Probability of Failure from Decline: Low

Vitality: High to moderate

Viability Score

22



Aspect 9-South (2018).JPG

Individual Management

Management objective. Maintain as a pollard through staged reduction.

Reduce crown by - Specified extent. Reduce by 2 metres. Complete by: 05/2020

Inspect. Complete by: 05/2021

Generated By

Tree 10 (Sgl/510240)

Salix alba
White Willow

Viability

Probability of Failure from Collapse: Moderate
Probability of Failure from Decline: Moderate to
Vitality: moderate

Viability Score

17



Aspect 10-West (2018).jpeg

Individual Management

Management objective. Maintain as medium height pollard (9 metres) through staged reduction and monitoring of operation results. End-weight reduction - 15%. Reducing the limb attached to the main stem growing in a south west aspect at a height of approx. 7m with a diameter of approx. 20cm by 4 metres.	Complete by: 05/2019
End-weight reduction - 15%. Reduce a limb attached to its sub lateral limb at a height of approx. 9m and with a diameter of approx. 15cm, growing in a north eastern aspect by 3 metres.	Complete by: 05/2019
Inspect.	Complete by: 05/2020
Reduce crown by - Specified extent. By 2 metres.	Complete by: 05/2020

Generated By

Tree 11 (Sgl/510228)

Salix alba
White Willow

Viability

Probability of Failure from Collapse: Low to Moderate
Probability of Failure from Decline: Low
Vitality: High to moderate

Viability Score

22



Aspect 11-North West (2018) .JPG

Individual Management

Management objective. Maintain as medium height pollard (15 metres) through staged reduction and monitoring of operation results.

Reduce crown by - Specified extent. By 3m

Complete by: 05/2020

Climbing plant - Sever.

Complete by: 05/2021

Generated By

Tree 12 (Sgl/510264)

Salix alba
White Willow

Viability

Probability of Failure from Collapse: Probable
Probability of Failure from Decline: Moderate
Vitality: moderate

Viability Score

16



Aspect 12-North (2018).JPG

Individual Management

Management objective. Maintain as medium height pollard (15 metres) through staged reduction and monitoring of operation results.

End-weight reduction - Specified extent. Reduce the limb attached to the main stem at 2 metres, with a diameter of approx. 25cm and growing in a north east aspect by 4 metres.

Complete by: 11/2018

Reduce crown by - Specified extent. By 3m. Inspect.

Complete by: 05/2020
Complete by: 05/2020

Generated By

Tree 13 (Sgl/510272)

Salix sp.
Willow sp.

Viability

Probability of Failure from Collapse: Low to Moderate

Probability of Failure from Decline: Probable

Vitality: moderate

Viability Score

17



Aspect 13-North West (2018).JPG

Individual Management

Management objective. Maintain as a Phoenix and encourage new growth.

Thin crown by - Specified extent. Remove 20% of poles every 2 years.

Complete by: 05/2020

Repeat once in every 9 year(s)

Vitality - Condition soil / mulch. Apply mulch/biocharon the ground to encourage shoot striking.

Complete by: 05/2020

Inspect.

Complete by: 05/2021

Generated By

Tree 14 (Sgl/510276)

Populus nigra 'Italica'
Lomardy Poplar

Viability

Probability of Failure from Collapse: Improbable
Probability of Failure from Decline: Very High
Vitality: High to moderate

Viability Score

19



Aspect 14-East (2018) .JPG

Individual Management

Management objective. To maintain a pollard at 5 metres and encourage basal epicormic growth.

Vitality - Address soil compaction. Consider options for excluding cattle to stop the grazing of basal epicormic growth.

Pollard - Initiate new regime.

Thin crown by - Specified extent. Thin 30% of poles.

Inspect.

Complete by: 05/2019

Complete by: 05/2021

Complete by: 05/2022

Complete by: 05/2022

Repeat once in every 3 year(s)

Repeat once in every 3 year(s)

Generated By

Tree 15 (Sgl/510280)

Salix alba

White Willow

Viability

Probability of Failure from Collapse: Low to Moderate

Probability of Failure from Decline: Moderate

Vitality: moderate

Viability Score

19



15 -East (2018).JPG

Individual Management

Management objective. Create a lower, more stable form through staged crown reductions, reviewing success through regular monitoring.

Reduce crown by - Specified extent. By 3m

Complete by: 05/2020

Generated By

Tree 16 (Sgl/510284)

Salix fragilis
Crack Willow

Viability

Probability of Failure from Collapse: Low to Moderate
Probability of Failure from Decline: Low
Vitality: high

Viability Score

23



Aspect 16-North West (2018).JPG

Individual Management

Management objective. To maintain current size and form.

Thin crown by removing 30% of poles, selecting those with the largest diameter.

Complete by: 05/2020

Repeat once in every 6 year(s)

Inspect.

Complete by: 05/2020

Generated By

Tree 17 (Sgl/511120)

Salix fragilis
Crack Willow

Viability

Probability of Failure from Collapse: Very Low

Probability of Failure from Decline: Moderate

Vitality: high

Viability Score

23



Aspect 17 -South (2018).JPG

Individual Management

Management objective. To maintain current size and form.

Vitality - Condition soil / mulch. Apply

Complete by: 05/2019

Mulch/Biochar where tree touches the ground to encourage shoot striking.

Thin crown by removing 20% of poles, selecting the largest diameter.

Complete by: 05/2020

Repeat once in every 3 year(s)

Inspect.

Complete by: 05/2020

Generated By

Tree 18 (Sgl/510320)

Salix fragilis
Crack Willow

Viability

Probability of Failure from Collapse: Low to Moderate

Probability of Failure from Decline: Moderate

Vitality: moderate

Viability Score

19



Aspect 18-North East (2018).JPG

Individual Management

Management objective. Maintain as a pollard through staged reduction and thinning operations.
Climbing plant - Sever ivy.

Complete by: 05/2019

Thin crown and reduce the Elder growing within the canopy by 50%.

Complete by: 05/2020

Thin crown by removing 30% of poles, selecting the largest diameter.

Complete by: 05/2020

Repeat once in every 3 year(s)

Inspect.

Complete by: 05/2020

Generated By

Tree 19 (Sgl/510316)

Salix fragilis
Crack Willow

Viability

Probability of Failure from Collapse: Low
Probability of Failure from Decline: Low to Moderate
Vitality: High to moderate

Viability Score

22



Aspect 19-East (2018).JPG

Individual Management

Management objective. Maintain as a pollard through a single reduction and thinning operations. Thin crown by - 20%.

Complete by: 05/2020

Repeat once in every 6 year(s)

Reduce crown by - Specified extent. Reduce remaining poles by 2 metres.

Complete by: 05/2020

Repeat once in every 3 year(s)

Inspect.

Complete by: 05/2020

Generated By

Tree 20 (Sgl/510312)

Salix alba
White Willow

Viability

Probability of Failure from Collapse: Low to Moderate

Probability of Failure from Decline: Probable

Vitality: moderate

Viability Score

17



Aspect 20-North East (2018).JPG

Individual Management

Management objective. To maintain current size and form and reduce competitive shading.

Climbing plant - Sever ivy. Reduce the adjacent Elder by 30%.

Complete by: 05/2019

Vitality - Condition soil / mulch. Apply Mulch/Biochar where tree touches the ground to encourage shoot strike.

Complete by: 05/2019

Thin crown by removing 20%.of poles, selecting those with the largest diameter.

Complete by: 05/2020

Repeat once in every 3 year(s)

Inspect.

Complete by: 05/2020

Generated By

Tree 21 (Sgl/510304)

Salix fragilis
Crack Willow

Viability

Probability of Failure from Collapse: Moderate
Probability of Failure from Decline: Low
Vitality: High to moderate

Viability Score

21



Aspect 21-North East (2018).JPG

Individual Management

Management objective. To maintain current size and form.

Climbing plant - Sever.

Complete by: 05/2019

Thin crown by removing 30% of poles, selecting those with the largest diameter.

Complete by: 05/2020

Repeat once in every 3 year(s)

Inspect.

Complete by: 05/2020

Generated By

Tree 22 (Sgl/510292)

Salix alba
White Willow

Viability

Probability of Failure from Collapse: Moderate to Probable

Probability of Failure from Decline: Moderate

Vitality: Low to moderate

Viability Score

15



Aspect 22-North West (2018).JPG

Individual Management

Management objective. Create a lower, more stable form through staged crown reductions, reviewing success through regular monitoring.

Climbing plant - Sever.

Complete by: 05/2019

Inspect.

Complete by: 05/2020

Reduce crown by - Specified extent. By 3 metres initially.

Complete by: 05/2020

Generated By

Tree 24 (Sgl/510220)

Salix alba
White Willow

Viability

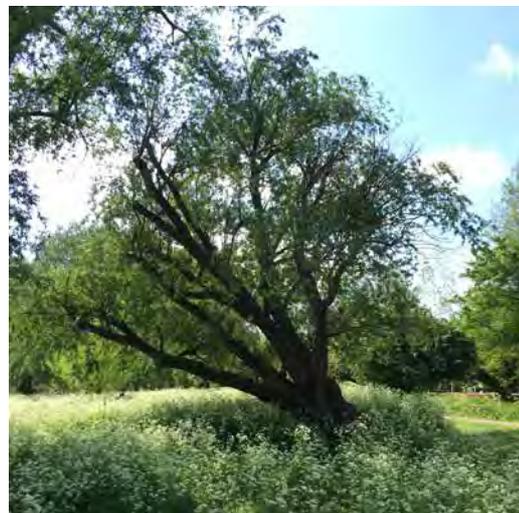
Probability of Failure from Collapse: Low to Moderate

Probability of Failure from Decline: Probable

Vitality: Low

Viability Score

15



Aspect 24-South (2018).JPG

Individual Management

Management objective. To maintain current size and form.

Remove foreign body. Remove swing.

Complete by: 11/2018

Thin crown by - Specified extent. Remove 20% of poles, selecting the largest.

Complete by: 05/2020

Repeat once in every 6 year(s)

Inspect.

Complete by: 05/2020

Generated By

Tree 26 (Sgl/510208)

Salix alba
White Willow

Viability

Probability of Failure from Collapse: Very Low
Probability of Failure from Decline: Very High
Vitality: Low to moderate

Viability Score

16



Aspect 26-North (2018).JPG

Individual Management

Management objective. To maintain current size and form and improve soil condition.
Vitality - Condition soil / mulch. Apply Mulch/Biochar to encourage striking.

Complete by: 05/2019

Inspect.

Complete by: 05/2020

Generated By

Tree 27 (Sgl/509528)

Salix sp.
Willow sp.

Viability

Probability of Failure from Collapse: Moderate

Probability of Failure from Decline: High

Vitality: moderate

Viability Score

15



Aspect 27-North (2018).jpeg

Individual Management

Management objective. Maintain as a low pollard through staged reduction operations, the duration set by the next inspection and address soil poaching.

Reduce crown by - Specified extent. Largest stem by an initial 7 metres. Complete by: 11/2018

Thin crown - Adjacent competition. Fell the adjacent x1 Lime and x1 Ader. Complete by: 05/2019

Inspect. Complete by: 05/2019

Vitality - Address soil compaction. Consider cattle exclusion options to reduce poaching. Complete by: 05/2019

Generated By

Tree 28 (Sgl/509544)

Salix alba
White Willow

Viability

Probability of Failure from Collapse: Low to Moderate

Probability of Failure from Decline: Low

Vitality: moderate

Viability Score

21



Aspect 28-East (2018)-2.JPG

Individual Management

Management objective. Maintain as a low pollard through thinning operations and address soil poaching.

Pollard - Initiate new regime. Pole thin.

Complete by: 05/2019

Inspect.

Complete by: 05/2019

Vitality - Address soil compaction. Consider cattle exclusion options.

Complete by: 05/2019

Thin crown by - Specified extent. Remove 10% of poles, selecting those with the largest diameter first.

Complete by: 05/2019

Generated By

Tree 29 (Sgl/513984)

Salix fragilis
Crack Willow

Viability

Probability of Failure from Collapse: Low to Moderate

Probability of Failure from Decline: Moderate

Vitality: moderate

Viability Score

19



Aspect 29-West (2018).JPG

Individual Management

Management objective. Maintain as a low pollard through staged reduction and thinning operations and reduce shading by competition.

Climbing plant - Sever.

Complete by: 05/2019

Reduce crown by - Specified extent. Reduce remaining poles by 2 metres.

Complete by: 05/2019

Repeat once in every 6 year(s)

Thin crown by - Specified extent. Remove 30% of poles.

Complete by: 05/2019

Repeat once in every 3 year(s)

Thin crown - Adjacent competition. Prune back adjacent competition.

Complete by: 05/2020

Inspect.

Complete by: 05/2020

Generated By

Tree 30 (Sgl/509576)

Salix fragilis
Crack Willow

Viability

Probability of Failure from Collapse: Low to Moderate

Probability of Failure from Decline: Moderate to

Vitality: Low to moderate

Viability Score

17



Aspect 30-South (2018) .JPG

Individual Management

Management objective. Create a lower, more stable form through staged crown reductions, reviewing success through regular monitoring.

Climbing plant - Sever.

Complete by: 05/2019

Reduce crown by - Specified extent. By 2 metres initially.

Complete by: 05/2020

Inspect.

Complete by: 05/2020

Generated By

Tree 31 (Sgl/509556)

Salix alba
White Willow

Viability

Probability of Failure from Collapse: Moderate to Probable
Probability of Failure from Decline: Probable
Vitality: Moderate

Viability Score

15



Aspect 31-West (2018).JPG

Individual Management

Management objective. Create a lower, more stable form through staged crown reductions, reviewing success through regular monitoring.

Reduce crown by - Specified extent. By 3 metres initially, back to previously pruned points. Inspect.

Complete by: 05/2020

Complete by: 05/2020

Generated By

Tree 32 (Sgl/509572)

Salix alba
White Willow

Viability

Probability of Failure from Collapse: Low to Moderate

Probability of Failure from Decline: Moderate

Vitality: High to moderate

Viability Score

20



Aspect 32-West (2018).JPG

Individual Management

Management objective. To maintain current ultimate size and form.

Climbing plant - Sever.

Complete by: 05/2019

Thin crown by - Specified extent. Remove 20% of poles, at 2.5 metres above the bole, selecting the largest diameter first.

Complete by: 05/2020

Repeat once in every 6 year(s)

Inspect.

Complete by: 05/2020

Generated By

Tree 33 (Sgl/509728)

Salix sp.
Willow sp.

Viability

Probability of Failure from Collapse: Very Low

Probability of Failure from Decline: Probable

Vitality: moderate

Viability Score

19



Aspect 33-South East (2018).JPG

Individual Management

Management objective. To maintain current size and form and improve soil poaching.

Vitality - Condition soil / mulch. Apply Mulch/Biochar to encourage striking.

Complete by: 05/2019

Vitality - Address soil compaction. Consider cattle exclusion options to reduce poaching.

Complete by: 05/2019

Reduce crown by - Specified extent. By 2m.

Complete by: 05/2020

Inspect.

Complete by: 05/2020

Thin crown by removing 20% of poles, selecting a range of diameter poles.

Complete by: 05/2021

Repeat once in every 3 year(s)

Generated By

Tree 34 (Sgl/509716)

Salix alba
White Willow

Viability

Probability of Failure from Collapse: Probable
Probability of Failure from Decline: Moderate
Vitality: Low to moderate

Viability Score

15



Aspect 34-North West (2018).JPG

Individual Management

Reduce crown by - Specified extent. Reduce by 3 metres initially.	Complete by: 11/2018
Management objective. To reduce to a lower and more stable form (6 metres) through staged reduction and thinning operations.	Complete by: 05/2020
Thin crown by - Specified extent. Remove 20% of poles, selecting those with the largest diameter first.	Complete by: 05/2020
Inspect.	Complete by: 05/2020

Generated By

Tree 35 (Sgl/509552)

Crataegus sp.
Hawthorn sp.

Viability

Probability of Failure from Collapse: Low
Probability of Failure from Decline: Low to Moderate
Vitality: High to moderate

Viability Score

22



Aspect 35-North (2018).jpeg

Individual Management

Management objective. To Maintain current size and form and address cattle soil poaching.	Complete by: 05/2019
Climbing plant - Sever and remove carefully once dead.	
Vitality - Address soil compaction. Consider cattle exclusion options to reduce poaching.	Complete by: 05/2019
Inspect.	Complete by: 05/2019

Generated By

Tree 36 (Sgl/509712)

Crataegus sp.
Hawthorn sp.

Viability

Probability of Failure from Collapse: Low to Moderate

Probability of Failure from Decline: Very High

Vitality: moderate

Viability Score

15



Aspect 36-South West (2018).JPG

Individual Management

Management objective. To Maintain current size and form and remove climbing plant competition.

Climbing plant - Sever and remove carefully, once dead.

Inspect.

Complete by: 11/2018

Complete by: 05/2019

Generated By

Tree 37 (Sgl/509668)

Salix fragilis
Crack Willow

Viability

Probability of Failure from Collapse: Probable

Probability of Failure from Decline: Moderate

Vitality: moderate

Viability Score

16



Aspect 37-South East (2018).JPG

Individual Management

Management objective. Maintain as a low pollard through staged reduction and thinning operations and regular cyclical pollarding.

Reduce crown by - Specified extent. Reduce initially by 2 metres.

Complete by: 05/2019

Thin crown by - Specified extent. Remove 20% of poles, selecting those with the largest diameter first.

Complete by: 05/2019

Climbing plant - Sever.

Complete by: 05/2020

Inspect.

Complete by: 05/2020

Generated By

Tree 38 (Sgl/509664)

Salix fragilis
Crack Willow

Viability

Probability of Failure from Collapse: Moderate
Probability of Failure from Decline: Probable
Vitality: High to moderate

Viability Score

17



Aspect 38-South West (2018).JPG

Individual Management

Management objective. Create a lower, more stable form, through reduction and thinning operations.

Reduce crown by - Specified extent. Crown reduce by 1.5 metres.

Complete by: 05/2020

Inspect.

Complete by: 05/2020

Thin crown by - Specified extent. Remove 20% of remaining poles.

Complete by: 05/2021

Repeat once in every 6 year(s)

Generated By

Tree 39 (Sgl/509696)

Salix fragilis
Crack Willow

Viability

Probability of Failure from Collapse: Moderate to Probable

Probability of Failure from Decline: Moderate

Vitality: High to moderate

Viability Score

18



Aspect 39-East (2018).JPG

Individual Management

Management objective. Create a lower, more stable form, through reduction operations and encourage striking.

Reduce crown by - Specified extent. Crown reduce by 1.5 metres, to previously pruned points and maintain at this dimension through cyclical pollarding.

Inspect.

Vitality - Condition soil / mulch. Apply

Mulch/Biochar where tree touches the ground to encourage striking.

Vitality - Condition soil / mulch.

Complete by: 05/2020

Repeat once in every 6 year(s)

Complete by: 05/2020

Complete by: 05/2020

Complete by: 05/2022

Generated By

Tree 40 (Sgl/509744)

Salix sp.

Viability

Willow sp.

Probability of Failure from Collapse: Improbable
Probability of Failure from Decline: Moderate to probable
Vitality: High to moderate

Viability Score

22



Aspect 40-West (2018) .JPG

Individual Management

Management objective. Maintain current ultimate size and form through cyclical pollarding and pole thinning and encourage ground strike.

Vitality - Condition soil / mulch. Apply Mulch/Biochar where tree touches the ground to encourage striking.

Pollard - to previous pollarded points.

Thin crown by - Specified extent. Thin 20% poles, selecting the largest diameter.

Inspect.

Complete by: 05/2020

Complete by: 05/2020

Complete by: 05/2020

Complete by: 05/2020

Repeat once in every 6 year(s)

Repeat once in every 6 year(s)

Generated By

Tree 41 (Sgl/509740)

Salix fragilis

Viability

Crack Willow

Probability of Failure from Collapse: Very Low

Probability of Failure from Decline: Moderate

Vitality: High to moderate

Viability Score

22



Aspect 41-East (2018).JPG

Individual Management

Management objective. Maintain current ultimate size and form through cyclical pollarding and pole thinning and encourage ground strike. Inspect.

Complete by: 05/2020

Pollard - to previously pruned points.

Complete by: 05/2020

Repeat once in every 6 year(s)

Thin crown by - Specified extent. Thin 20% poles, selecting the largest diameter.

Complete by: 05/2020

Repeat once in every 6 year(s)

Vitality - Condition soil / mulch. Apply Mulch/Biochar where tree touches the ground to encourage striking.

Complete by: 05/2020

Generated By

Tree 42 (Sgl/509736)

Salix sp.
Willow sp.

Viability

Probability of Failure from Collapse: Moderate

Probability of Failure from Decline: Moderate

Vitality: moderate

Viability Score

18



Aspect 42-East (2018).JPG

Individual Management

Management objective. Maintain current ultimate size and form through cyclical pollarding and pole thinning, specified following inspections.

Inspect.

Complete by: 05/2020

Thin crown by - Specified extent. Thin 20% poles, selecting the largest diameter.

Complete by: 05/2020

Repeat once in every 6 year(s)

Reduce crown by - Specified extent. Crown reduce by 1.5 metres, setting next operation following inspection.

Complete by: 05/2020

Repeat once in every 6 year(s)

Generated By

Tree 43 (Sgl/509760)

Salix fragilis

Viability

Crack Willow

Probability of Failure from Collapse: Moderate

Probability of Failure from Decline: Moderate

Vitality: moderate

Viability Score

18



Aspect 43-South (2018).JPG

Individual Management

Management objective. Maintain as a low pollard through reduction and thinning operations.

Reduce crown by - Specified extent. Crown reduce by 1.5 metres, setting next operation following inspection.

Complete by: 05/2020

Repeat once in every 6 year(s)

Thin crown by - Specified extent. Thin 20% poles, selecting the largest diameter.

Complete by: 05/2020

Repeat once in every 6 year(s)

Inspect.

Complete by: 05/2020

Tree 44 (Sgl/510052)

Crataegus sp.
Hawthorn sp.

Viability

Probability of Failure from Collapse: Very Low
Probability of Failure from Decline: Moderate to
Vitality: Low to moderate



Viability Score

19

Aspect 44-West (2018).JPG

Individual Management

Management objective. To Maintain current size and form and remove climbing plant competition. Complete by: 11/2018
Climbing plant - Sever and remove carefully once dead.
Inspect. Complete by: 05/2019

Generated By

Tree 45 (Sgl/510788)

Salix sp.
Willow sp.

Viability

Probability of Failure from Collapse: Low
Probability of Failure from Decline: Moderate
Vitality: High to moderate

Viability Score

21



Aspect 45-North West (2018).JPG

Individual Management

Management objective. Maintain current size and form.

Climbing plant - Sever ivy. Remove adjacent Hawthorn Complete by: 05/2019

Thin crown - Adjacent competition. Remove 30% of poles. Complete by: 05/2021

Inspect. Complete by: 05/2022

Repeat once in every 3 year(s)

Generated By

Tree 46 (Sgl/510784)

Salix sp.
Willow sp.

Viability

Probability of Failure from Collapse: Moderate
Probability of Failure from Decline: Moderate
Vitality: High to moderate

Viability Score

19



Aspect 46-South West.JPG

Individual Management

Management objective. Maintain current size and form.

Climbing plant - Sever. Remove adjacent plants. Complete by: 05/2019

Thin crown - Adjacent competition. Remove 30% of poles. Complete by: 05/2021 Repeat once in every 3 year(s)

Inspect. Complete by: 05/2021

Generated By

Tree 47 (Sgl/510840)

Salix fragilis
Crack Willow

Viability

Probability of Failure from Collapse: Moderate
Probability of Failure from Decline: Probable
Vitality: Low to moderate

Viability Score

15



Aspect 47-East (2018).JPG

Individual Management

Management objective. Maintain as a pollard through staged reduction and thinning operations.
Climbing plant - Sever.

Complete by: 05/2020

Reduce crown by - Specified extent. Reduce remaining poles by 1.5 metres.

Complete by: 05/2020

Repeat once in every 6 year(s)

Thin crown by - Specified extent. Remove 20% poles, selecting the largest diameter.

Complete by: 05/2020

Repeat once in every 3 year(s)

Inspect.

Complete by: 05/2020

Generated By

Tree 48 (Sgl/510764)

Salix sp.
Willow sp.

Viability

Probability of Failure from Collapse: Very Low

Probability of Failure from Decline: Moderate

Vitality: moderate

Viability Score

21



Aspect 48-East (2018) .JPG

Individual Management

Management objective. Maintain current size and form.

Climbing plant - Sever.

Complete by: 05/2019

Thin crown - Adjacent competition. Remove 30% of poles.

Complete by: 05/2021

Repeat once in every 3 year(s)

Inspect.

Complete by: 05/2021

Generated By

Tree 49 (Sgl/510744)

Salix sp.
Willow sp.

Viability

Probability of Failure from Collapse: Very Low
Probability of Failure from Decline: Moderate to
Vitality: moderate

Viability Score

20



Aspect 49-West (2018).JPG

Individual Management

Management objective. Maintain current size and form and remove competing plant.

Climbing plant - Sever.

Complete by: 05/2019

Thin crown - Adjacent competition. Remove 30% of poles.

Complete by: 05/2021

Repeat once in every 3 year(s)

Inspect.

Complete by: 05/2021

Generated By

Tree 50 (Sgl/510728)

Salix sp.
Willow sp.

Viability

Probability of Failure from Collapse: Moderate to

Probability of Failure from Decline: Moderate to

Vitality: moderate

Viability Score

16



Aspect 50-South West (2018).JPG

Individual Management

Management objective. Maintain as a low pollard through staged reduction and thinning operations.

Reduce crown by - Specified extent. Reduce remaining poles by 2 metres.

Thin crown by - Specified extent. Remove 30% poles.

Inspect.

Complete by: 05/2019

Repeat once in every 6 year(s)

Complete by: 05/2019

Repeat once in every 3 year(s)

Complete by: 05/2020

Generated By

Tree 51 (Sgl/510724)

Salix sp.
Willow sp.

Viability

Probability of Failure from Collapse: Very Low
Probability of Failure from Decline: High
Vitality: Low to moderate

Viability Score

17



Aspect 51-West (2018).JPG

Individual Management

Management objective. Maintain current ultimate size and form through cyclical pollarding and pole thinning and remove competition by climbing plant.

Thin crown by - Specified extent. Remove 30% poles.

Complete by: 05/2019

Repeat once in every 3 year(s)

Reduce crown by - Specified extent. Reduce remaining poles by 2 metres.

Complete by: 05/2019

Repeat once in every 6 year(s)

Climbing plant - Sever.

Complete by: 05/2019

Inspect.

Complete by: 05/2020

Tree 52 (Sgl/510472)

Salix fragilis
Crack Willow

Viability

Probability of Failure from Collapse: Probable
Probability of Failure from Decline: Moderate
Vitality: moderate

Viability Score

16



52-East (2018).JPG

Individual Management

Management objective. Maintain as a low pollard through staged reduction and thinning operations

Reduce crown by - Specified extent. Reduce remaining poles by 2 metres.

Complete by: 05/2019

Repeat once in every 6 year(s)

Thin crown by - Specified extent. Remove 30% poles.

Complete by: 05/2019

Repeat once in every 3 year(s)

Inspect.

Complete by: 05/2020

Generated By

Tree 53 (Sgl/510460)

Salix fragilis
Crack Willow

Viability

Probability of Failure from Collapse: Moderate

Probability of Failure from Decline: Moderate

Vitality: moderate

Viability Score

18



Aspect 53-North East (2018).JPG

Individual Management

Management objective. Maintain as a pollard through staged reduction and thinning operations.

Reduce crown by - Specified extent. Reduce remaining poles by 2 metres.

Complete by: 05/2019

Repeat once in every 6 year(s)

Thin crown by - Specified extent. Remove 30% poles.

Complete by: 05/2019

Repeat once in every 3 year(s)

Inspect.

Complete by: 05/2020

Generated By

Tree 54 (Sgl/510444)

Salix alba
White Willow

Viability

Probability of Failure from Collapse: Probable

Probability of Failure from Decline: High

Vitality: Low

Viability Score

11



Aspect 54-North East (2018).JPG

Individual Management

Management objective. Maintain as a pollard through staged reduction and thinning operations and removing adjacent competition.

Climbing plant - Sever ivy.

Complete by: 11/2018

Reduce crown by - Specified extent. Reduce remaining poles by 2 metres.

Complete by: 05/2019

Repeat once in every 6 year(s)

Thin crown by - Specified extent. Remove 30% poles.

Complete by: 05/2019

Repeat once in every 3 year(s)

Thin crown - Adjacent competition. Prune back/Remove adjacent competition.

Complete by: 05/2019

Inspect.

Complete by: 05/2020

Thin crown - Adjacent competition. Remove or prune back adjacent Hawthorn.

Complete by: 05/2020

Generated By

Tree 55 (Sgl/509560)

Salix fragilis
Crack Willow

Viability

Probability of Failure from Collapse: Moderate to
Probability of Failure from Decline: Low to Moderate
Vitality: High to moderate

Viability Score

19



Aspect 55-West (2018).JPG

Individual Management

Management objective. Reduce to a lower and more stable form, maintaining a medium height pollard (9 metres) through staged reduction and monitoring of operation results and encourage ground striking growth.

Climbing plant - Sever.

Complete by: 05/2019

Vitality - Condition soil / mulch. Apply Mulch/Biochar where tree touches the ground to encourage striking.

Complete by: 05/2020

Reduce crown by - Specified extent. To 3 metre, to previously pruned points.

Complete by: 05/2021

Inspect.

Complete by: 05/2021

Generated By

Tree 57 (Sgl/509748)

Salix fragilis
Crack Willow

Viability

Probability of Failure from Collapse: Moderate
Probability of Failure from Decline: Low
Vitality: High to moderate

Viability Score

21



Aspect 57-East (2018).JPG

Individual Management

Management objective. Maintain as a pollard through staged reduction and thinning operations. Reduce crown by - Specified extent. By 2 metres initially, setting next operation following an inspection.
Inspect.

Complete by: 05/2020

Complete by: 05/2020

Generated By

Tree 58 (Sgl/509708)

Salix fragilis
Crack Willow

Viability

Probability of Failure from Collapse: Moderate to
Probability of Failure from Decline: Moderate
Vitality: High to moderate

Viability Score

18



Aspect 58-North (2018).JPG

Individual Management

Management objective. Maintain current ultimate size and form on a cyclical pollarding regime and encourage ground strike.

Inspect.

Complete by: 05/2020

Pollard - to previous pollarded points.

Complete by: 05/2020

Repeat once in every 6 year(s)

Thin crown by - Specified extent. Thin 20% poles, selecting the largest diameter.

Complete by: 05/2020

Repeat once in every 6 year(s)

Vitality - Condition soil / mulch. Apply

Complete by: 05/2020

Mulch/Biochar here tree touches the ground to encourage striking.

Generated By

Tree 59 (Sgl/510224)

Salix alba
White Willow

Viability

Probability of Failure from Collapse: Low
Probability of Failure from Decline: Low to Moderate
Vitality: High to moderate

Viability Score

22



Aspect 59-North West (2018).JPG

Individual Management

Management objective. Maintain current size in the medium term (10 years), reducing end weighting of etiolated limbs to reduce limb loss.

End-weight reduction - Specified extent. Reduce limb attached to sub lateral limb at a height of approx. 5 metres, a diameter of 17cm and growing in a north west aspect by 4 metres.

Inspect.

Complete by: 05/2020

Complete by: 05/2020

Generated By

Tree 60 (Sgl/510288)

Populus nigra 'Italica'
Lomardy Poplar

Viability

Probability of Failure from Collapse: Moderate
Probability of Failure from Decline: Low to Moderate
Vitality: High to moderate

Viability Score

20



Aspect 60 -North (2018) .JPG

Individual Management

Management objective. Mantain current size and form for amenity benefit, remove climbing plant to encourage basal and stem epicormic growth.

Climbing plant - Sever.

Inspect.

Complete by: 05/2021

Complete by: 05/2021

Generated By

Tree 61 (Sgl/510216)

Salix alba
White Willow

Viability

Probability of Failure from Collapse: Moderate

Probability of Failure from Decline: Moderate

Vitality: moderate

Viability Score

18



Aspect 61-North West (2018) .JPG

Individual Management

Management objective. Maintain as medium height pollard (9 metres) through staged reduction and monitoring of operation results and reduce an over extended etiolated limb to reduce limb loss.

End-weight reduction - Specified extent. Reduce length of sub lateral limb in a north east aspect, attached to its parent limb at 3 metres, with diameter of 15cm, by 4 metres. Complete by: 05/2019

Remove foreign body. Remove swing. Complete by: 05/2019

Reduce crown by - Specified extent. By 3 metres, to previously reduced points, setting the following operations following an inspections. Complete by: 05/2021

Inspect. Complete by: 05/2022

Generated By

Tree 62 (Sgl/509780)

Crataegus sp.
Hawthorn sp.

Viability

Probability of Failure from Collapse: Low
Probability of Failure from Decline: High
Vitality: Low to moderate

Viability Score

16



Aspect 62-North West (2018).JPG

Individual Management

Management objective. To Maintain current size and form and improve crown vitality by removing climbing plant.

Climbing plant - Sever and remove carefully once dead.

Inspect.

Complete by: 11/2018

Complete by: 05/2019

Generated By

Tree 63 (Sgl/510792)

Salix fragilis
Crack Willow

Viability

Probability of Failure from Collapse: Moderate
Probability of Failure from Decline: Low to Moderate
Vitality: High to moderate

Viability Score

20



Aspect 63-West (2018).jpG

Individual Management

Management objective. Maintain as a low pollard.

Thin crown by - Specified extent. Remove 50% poles.

Complete by: 05/2019

Repeat once in every 3 year(s)

Thin crown by - Specified extent.

Complete by: 05/2020

Repeat once in every 6 year(s)

Climbing plant - Sever.

Complete by: 05/2020

Inspect.

Complete by: 05/2020

Generated By

Tree 64 (Sgl/510796)

Salix sp.
Willow sp.

Viability

Probability of Failure from Collapse: Moderate to
Probability of Failure from Decline: Moderate
Vitality: High to moderate

Viability Score

18



Aspect 64-North East.JPG

Individual Management

Management objective. Maintain as a low pollard.

Climbing plant - Sever.

Complete by: 05/2020

Thin crown by - Specified extent. By 50%.

Complete by: 05/2020

Repeat once in every 3 year(s)

Inspect.

Complete by: 05/2020

Generated By

Tree 65 (Sgl/510664)

Salix sp.
Willow sp.

Viability

Probability of Failure from Collapse: Low
Probability of Failure from Decline: Moderate
Vitality: High to moderate

Viability Score

21



Aspect 65-East (2018).JPG

Individual Management

Management objective. Maintain as a low pollard and consider excluding cattle to eliminate soil poaching.

Vitality - Address soil compaction. Consider cattle exclusion options. Complete by: 05/2019

Climbing plant - Sever. Complete by: 05/2020

Thin crown by - Specified extent. By 50%. Complete by: 05/2020 Repeat once in every 3 year(s)

Generated By

Tree 66 (Sgl/510648)

Salix fragilis
Crack Willow

Viability

Probability of Failure from Collapse: Very Low
Probability of Failure from Decline: Moderate
Vitality: High to moderate

Viability Score

22



Aspect 66-North (2018).JPG

Individual Management

Management objective. Maintain as a low pollard through reduction and thinning and remove competition from climbing plant to encourage epicormic growth.

Climbing plant - Sever.

Inspect.

Complete by: 05/2019

Complete by: 05/2020

Generated By

Tree 67 (Sgl/510660)

Salix fragilis
Crack Willow

Viability

Probability of Failure from Collapse: Low to Moderate

Probability of Failure from Decline: Moderate to

Vitality: moderate

Viability Score

18



Aspect 67-East (2018).JPG

Individual Management

Management objective. Reduce to a more stable form, thereafter, maintaining as a low pollard and remove competition from climbing plant to encourage epicormic growth.

Climbing plant - Sever.

Complete by: 05/2019

Inspect.

Complete by: 05/2020

Thin crown by - Specified extent. Removing 20% of the poles.

Complete by: 05/2020

Repeat once in every 6 year(s)

Reduce crown by - Specified extent. Reduce by 1.5 metres.

Complete by: 05/2020

Generated By

Tree 68 (Sgl/510640)

Salix fragilis
Crack Willow

Viability

Probability of Failure from Collapse: Low to Moderate

Probability of Failure from Decline: Low

Vitality: High to moderate

Viability Score

22



Aspect 68-North (2018).JPG

Individual Management

Management objective. Maintain as a low pollard.

Climbing plant - Sever.

Complete by: 05/2020

Inspect.

Complete by: 05/2020

Thin crown by - Specified extent. Remove 50% poles.

Complete by: 05/2020

Repeat once in every 6 year(s)

Generated By

Tree 69 (Sgl/510652)

Salix sp.
Willow sp.

Viability

Probability of Failure from Collapse: Low to Moderate

Probability of Failure from Decline: Moderate

Vitality: moderate

Viability Score

19



Aspect 69-South East (2018).JPG

Individual Management

Management objective. Maintain as a low pollard and remove competition from climbing plant.

Thin crown by - Specified extent. Remove 30% poles.

Climbing plant - Sever.

Inspect.

Complete by: 05/2019

Complete by: 05/2019

Complete by: 05/2020

Repeat once in every 3 year(s)

Generated By

Tree 70 (Sgl/510448)

Salix fragilis
Crack Willow

Viability

Probability of Failure from Collapse: Moderate to
Probability of Failure from Decline: Low to Moderate
Vitality: High to moderate

Viability Score

19



Aspect 70-North East (2018) .JPG

Individual Management

Management objective. Maintain as a low pollard through staged reduction and thinning operations.
Reduce crown by - Specified extent. Reduce remaining poles by 2 metres.
Thin crown by - Specified extent. Remove 30% poles.
Inspect.

Complete by: 06/2019

Repeat once in every 6 year(s)

Complete by: 06/2019

Repeat once in every 3 year(s)

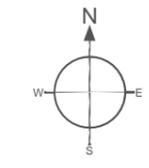
Complete by: 06/2020

Generated By

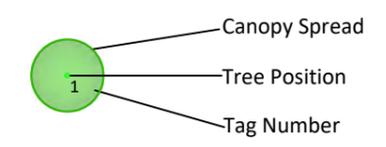
Appendix IV

Maps





Symbol Guide



Project Name:
Sheep's Green and Coe Fen, Cambridge

Drawing Title:
Veteran Tree Plan

Drawing Number: 180608-1.1-SGCFC-VTP-MM	Revised 01
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Client:
-

Agent:
-

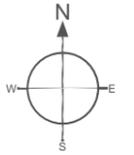
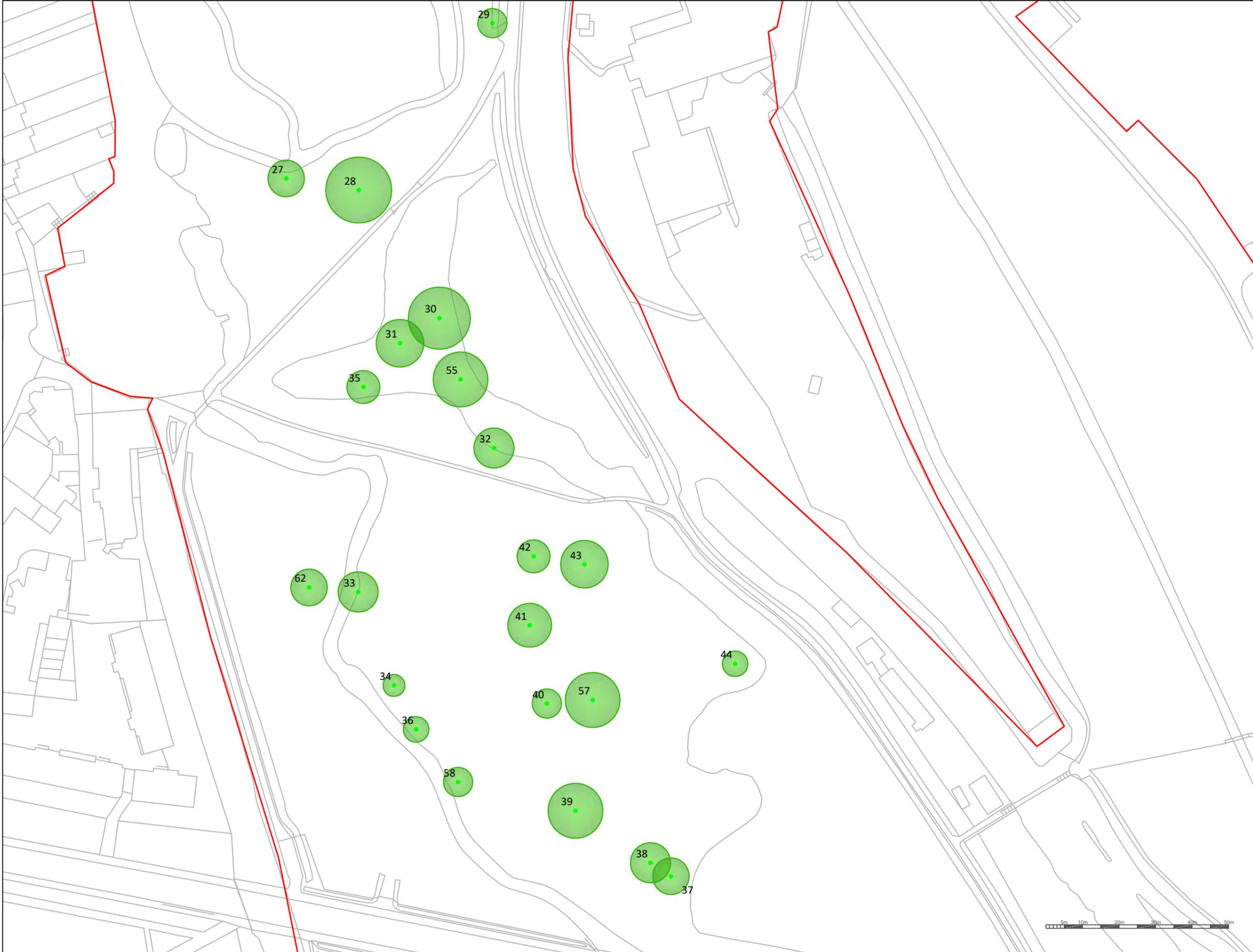
Date:
June 2018

Scale:
1:2500 @ A3



Treework Environmental Practice
Monarch House
1-7 Smyth Road
Bedminster
Bristol
BS3 2BX

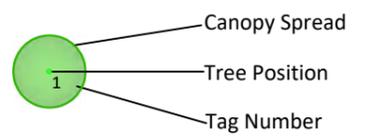
Tel: 0117 244 0012
Web: www.treeworks.co.uk
Email: info@treeworks.co.uk



Drawing Sheet:

01

Symbol Guide



Project Name:
Sheep's Green and Coe Fen, Cambridge

Drawing Title:
Veteran Tree Plan

Drawing Number: 180608-1.1-SGCFC-VTP-MM	Revised 01
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Client:
-

Agent:
-

Date:
June 2018

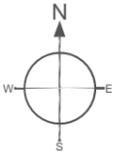
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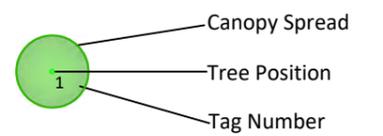




Drawing Sheet:

02

Symbol Guide



Project Name:
Sheep's Green and Coe Fen, Cambridge

Drawing Title:
Veteran Tree Plan

Drawing Number: 180608-1.1-SGCFC-VTP-MM	Revised 01
--	---------------

Client:
-

Agent:
-

Date:
June 2018

Scale:
1:1000 @ A3



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Appendix V

Veteran Tree Survey Limitations



- 1 The report and accompanying documentation are time limited and, unless otherwise stated, this is within a period not exceeding 12 months.
- 2 This is a preliminary assessment from ground level and observations have been made from visual inspection of external features. Where appropriate, binoculars, trowel, mallet and fine manual metal probe have been used to aid the assessment. No invasive decay detection devices have been used in assessing trunk condition. No tree or soil samples have been taken.
- 3 Trees have been assessed within the context of a veteran tree survey using the Specialist Survey Method (SSM) and veteran tree viability assessment methods, only.
- 4 Unless specifically stated, trees have not been assessed and management recommendations have not been specified in relation to risks of harm / damage posed to people or property through structural failure.
- 5 This assessment does not relate to risks associated with subsidence, heave, other forms of disturbance associated with tree root growth or removal.
- 6 Unless otherwise stated measurements of height and crown spread are approximate and recorded in metres. Distances from the tree refer to the approximate distance from the edge of the base of the main trunk assessed on site. Compass orientation, proportions and assessments of age are estimates.
- 7 The conclusions relate to conditions at the time of inspection. Tree growth is continual and the effects of any debilitating factors may be progressive. Due to these factors, further periodic tree assessments may be necessary on an appropriate basis.
- 8 The recommended tree works are not intended to address the potential failure of a tree or parts of a tree during extreme weather events that are capable of causing the structural failure of trees or parts of trees that are not faulted.
- 9 Following an extreme weather event, the report and accompanying documentation will no longer be valid unless confirmed and updated by a reassessment of the trees on the site.
- 10 The tree inspection is limited to the season in which the inspection takes place. When in the dormant period and trees are not in leaf, no observation is possible regarding foliar condition; however twig, bud character and general tree condition are taken into consideration.
- 11 The presence and abundance of flora and fauna that are recorded as tree associates are may be affected by seasonal or other factors.
- 12 Where parts of the tree are obscured, for instance by ivy or debris, it is possible that structural faults may not have been observed by the surveyor. In these cases, where appropriate, works may be recommended to remove the obstruction prior to a subsequent inspection.
- 13 No documented information has been provided regarding the history of root disturbance or severance or changes in local ground conditions (soil levels, drainage patterns etc.) or the location of underground services.



- 14 Management recommendations need to be considered in the light of relevant constraints, including The Town and Country Planning Act 1990 (as amended) and the Wildlife and Countryside Act 1981 (as amended).
- 14.1 The Town and Country Planning Act 1990
- i. Where a Tree Preservation Order (TPO) applies to trees on the site, consent will be required from the Local Planning Authority (LPA) for any proposed work to the trees, apart from any urgent safety works to address immediate risks. This process can take up to eight weeks.
 - ii. Where the site is within a Conservation Area (CA), notice will need to be given to the LPA for any proposed work to the trees, apart from any urgent safety works to address immediate risks. The LPA will have six weeks to respond to the notice after which, if no response is received, the works for which notice has been given can be carried out.
- 14.2 The Wildlife and Countryside Act - 1981, Conservation - Natural Habitats –Regulations 1994 and Countryside Rights of Way Act - 2000, Consideration must be given to the timing and type of tree work operations to avoid causing disturbance to any nesting or breeding birds or bat roosts that may be present within trees and hedgerows.
- 14.3 Where live trees are to be felled, a felling licence may be required from the Forestry Commission. This is subject to a number of exemptions and only applies where the quantity of timber in the trees that are to be felled, is equal to or exceeds 5 cubic metres.
- 15 Any costs for works specified by the survey have been estimated based on an assumption of the likely day cost of a tree surgery team and are intended for budgeting purposes only. These estimated costs do not include VAT.
- 16 If any specified works are to be carried out, Treework Environmental Practice recommends that at least three quotes are sought from sufficiently qualified, experienced and reputable tree surgeons.
- 17 Timing of Works
- 17.1 Currently the optimal time to prune veteran trees is open to debate. Experience has shown that pruning during a drought year or in year that follows a drought should be avoided, since the tree's starch reserves may be insufficient to sustain re-growth. Also drying of tissues may encourage dieback and extensive fungal colonisation, at a time when the tree has depleted resources for effective compartmentalisation.
- 17.2 It is advised that pruning of veteran trees is not carried out in the months of June, July and August as it is during these periods that the trees may be stressed due to low water availability. There is evidence to suggest that pruning during March, April and May is sub-optimal as the trees have low energy reserves due to spring flushing⁴. There is the possibility that trees may still be experiencing stress from low water availability during September and October making them vulnerable to microbial colonisation of wound areas (at a time when fungal spores are most abundant). This leaves a window extending from November to February, during the trees' dormant period, where pruning is likely to have the least deleterious effects on tree vitality.

⁴ Lonsdale, D. (1995). *The Management of Ancient Pollarded Trees*. Arboriculture Research and Information Note 131. Department of the Environment.