Tree Condition Survey

Final Report

January 2024

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Natural England

www.jbaconsulting.com

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Contract

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JBA Project Code	2024s0035

This report describes work commissioned by Janet Canning, on behalf of Natural England, by an instruction dated (insert date in full). Stephen Tester of JBA Consulting carried out this work.

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Unless otherwise stated in this Report, the assessments made assume that the sites and facilities will continue to be used for their current purpose without significant changes.

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Abbreviations

AOD	Above Ordnance Datum.
BS	British Standards, such as BS3998 & BS5837.
CA	Conservation Area.
GLTA	Ground Level Tree Assessment
JBA	JBA Consulting Ltd.
RPA	Root Protection Area.
LPA	Local Planning Authority.
NNR	National Nature Reserve
OSGR	Ordnance Survey Grid Reference
PRA	Preliminary Roost Assessment
PRF	Potential Roost Feature
RLSB	Red Line Site Boundary
SSSI	Site of Special Scientific Interest
TCP	Tree Constraints Plan.
TPO	Tree Preservation Order, a legal order issued by the LPA to protect trees.
TPP	Tree Protection Plan.
VTA	Visual Tree Assessment.

Definitions

Crown Break: The point at which the trunk splits and the crown forms.

Compensation Growth: The growth a tree makes to strengthen specific areas that may have been damaged or require strengthening in reaction to environmental stress, such as internal rot in the stem or prevailing wind, etc.

Coppiced/ Pollard: Trees are typically cut just above ground level, or above animal grazing height and allowed to regrow from the cut stump.

Crown: The branches and canopy of the tree.

Deadwood: Any branching in the crown that has died. It can be attached to the tree or hanging within branches.

Epicormic Growth: The type of growth can be produced because of a tree experiencing stress, either physical or environmental.

Apical Leader: The central stem of the tree that is the most dominant in the crown.

Open Grown: A tree that grows in an open area where develops without any competition for light or space leading to a tree with a broad spreading crown.

Pollard: A pollarded tree. Pollarding is the cutting of a tree at a certain height above ground level, removing all of the crown but sometimes leaving some truncated framework branches, in species suitable to this treatment.

Potential Roost Features: Potential features or defects which could afford roosting opportunities for Bats including features such as cracks/splits, crevices, knot holes and rot cavities, fluting, loose bark, woodpecker holes and areas of the plate forming Ivy Hedera helix.

Root Protection Area: The minimum area of ground that provides sufficient soil rooting volume to ensure the survival of the tree in healthy condition. To avoid a significant impact on a tree's health, it is necessary to maintain the RPA without damaging operations. Where construction is unavoidable within the RPA, it should be planned and detailed to avoid significant damage to the tree or soil.

Rot Pocket: An area usually at a branch junction where a hollow has formed and begun to rot into the tree.

Target: Person or object whether mobile or fixed, within the potential zone of impact of a tree or its branches, which might be harmed because of partial or total failure of the tree.

Executive Summary

JBA Consulting was commissioned by Natural England to undertake a formal inspection of trees adjacent to a Hatfield Moor Drain access track, at Hatfield Moors National Nature Reserve. The trees were subject to a previous arboricultural assessment in 2021 (JBA) following branch failures resulting from weather and tree condition; this was inform a precautionary approach to the site management and visitor safety.

The trees to be surveyed are located on the neighbouring landowner's property and outside of the National Nature Reserve boundary. However, many of the current and foreseeable failures have the potential to fall within the proximity of an access track owned by NNR and onto a publicly accessible track. Due to these safety concerns the track is currently cordoned-off,. However, previously it was well used and forms part of the local cycle network.

Proposals on site are for tree safety works for those trees within the fall distance of paths and other public areas within the NNR. Works will range from re-pollarding of lapsed pollarded willow trees and crown reduction to removal, dependent on the condition of the trees.

A total of 49 individual trees, were surveyed. With a total of 25 trees being given recommendations for works, which are summarised as:

- 11x Repollard (T007 - 012, 014, 016, 021, 034, 036)
- 1x Reduce crown (T035)
- 8x Fell or reduce and retain as a habitat pole (T017, 019, 020, 025, 028, 029, 031, 033, 035)
- 1x Fell (T006)
- 1x Remove fallen stem from ditch (if desired) (T030)
- 2x Remove the faulted branch (T022, 026)
- 1x Continue to monitor condition (T004)
- T004 - Removal of a faulted branch over the access path.

The removal of reduction to retain the main stems as effective habitat poles of 8x trees was deemed appropriate, either due to the extent of branch failure in crown, or due to the condition and vigour of the trees.

Elven (11x) trees were recommended for pollarding, and this would afford the retention of the trees on an on-going cyclical works regime. It is however recognised that this type of works does come with an inherent cost, , but without active management further branch failures of the willows (adjacent to the NNR track) will foreseeably occur.

Whilst on-site, the potential removal (i.e. fell to ground level) of the lapsed willow pollards was discussed with the client. It is considered that the removal of the trees would have a limited impact on the amenity of the locale due to the relative tree cover retained. The

removal of the noted high risk trees instead of the prescribed works would reduce the requirement for ongoing management of retained pollard forms.

1 The Proposal

1.1.1 Following recent branch failures oftrees adjacent to an access track on the Humberhead Peatlands NNR, JBA Consulting have been commissioned by Natural England to undertake a formal inspection of trees that bound this access track which is adjacent Hatfield Moor Drain and runs to the east of Canberra Cottage Farm.

2 Introduction

2.1 Project Background

2.1.1 JBA Consulting has been commissioned by Natural England to undertake a formal inspection of the condition of trees adjacent to a Hatfield Moor Drain access track. This includes both an updated arboricultural assessment and an ecological (bat roosting) assessment of the trees[1].

2.1.2 The trees surveyed are located on the neighbouring landowner's property and outside of the National Nature Reserve boundary. However, any failures have the likely potential to fall within the NNR and onto a publicly accessible track. The track is currently cordoned-off due to safety concerns. However, previously it was well used and forms part of the local cycle network.

2.1.3 Branch failures have occurred previously, in 2020 and the trees were assessed in 2021 (JBA);recommendations were subsequently given to inform a precautionary approach to site management and visitor safety.

2.1.4 To date, no works have been undertaken to abate the potential for further failure,;the only works noted is the clearance of faulted and fallen branching over the National Nature Reserves (NNR) access track.

2.2 Scope & Brief

2.2.1 The trees identified within this survey include those which are considered large enough and in proximity to the access track, to pose a threat, should they fall on or shed materials that would potentially impact on to the track and thereby users of the track. This access track is currently cordoned-off, without the cordon this track is typically used consistently throughout the day by both visitors to the nature reserve, and the staff based on site.

2.2.2 The condition survey of the trees was undertaken to ascertain the age, previous management, and current condition of roots, trunks, branches and to identify any physical issues, and recommend works to reasonably abate or remove the risks

1 JBA Project Code 2023s1423 [Report: LRO-JBA-00-00-RP-BD-0001-S3-P01-Bat_GLTA_Report]

presented by notable defects presented by the trees or parts thereof.

2.2.3 Any work recommendations outlined within the survey accord with modern arboricultural practices.

2.2.4 The ecological (bat roosting) ground level assessment of the trees was undertaken by JBA Ecologists Tim Bailey and Martyna Grochulska, and a report has been produced [LRO-JBA-00-00-RP-BD-0001-S3-P01-Bat_GLTA_Report] produced based on their findings.

2.3 Site Location

2.3.1 The survey area is located immediately adjacent to the boundary of Hatfield Moors National Nature Reserve (NNR), DN9 3DZ located between Hatfield and Blaxton in South Yorkshire. [The nearest Postcode to trees is DN7 6DL],

2.3.2 The survey area is linear area running along the NNR boundary (Hatfield Moor Drain) and Tyram Hall Fisheries between Ordnance Survey Grid References (OSGR): SE 68339 04974 (south-west) and SE 68586 05344 (north-east) (see Figure 2-1).

2.3.3 The Centre of the group on What 3 Words is: rents.shipwreck.emotional.

2.3.4 The survey site consists of planted trees along the edge of the Hatfield Moor Drain and consists of 50 identified trees, with undergrowth and scrub.

2.4 Site Description

2.4.1 The majority of the trees surveyed in this area are mature white willow Salix *alba,* with a smaller number of semi-mature number of Birch *Betula ssp.*, pendunculate oak *Quercus robur*, lombardy poplar *Populus nigra italica* and a number of scots pine *Pinus sylvestris*. Much of the understorey canopy is made up of grey willow *Salix cinerea* with some hawthorn *Crataegus monogyna*, bramble *Rubus fruticosus* and nettle *Urtica diocea* are the main components of the understorey.

2.4.2 The trees within this are mostly rooted along the edge of the Hatfield Moor Drain. This drainage ditch varies from 4-8 m wide at its narrowest point along the southwestern extent end but widens out towards the middle of the area where it is intersected by a grassed track used by the fishery to access the fishing pegs. The southeastern side is bounded by a stoned-topped vehicular track approximately 3m wide.

2.4.3 The main car park and site services for the reserve are outside the southwestern corner of the survey area. This track leads to and from the car park and is frequently used by pedestrians and cyclists.

2.5 Report Limitations

2.5.1 The trees identified in the survey were assessed visually from ground level. No aerial/ climbing inspections, removal of ivy, nor detailed investigation of the condition/ decay of the trees was undertaken.

2.5.2 Only trees within the influence of the Hatfield Moor Drain and the NNR Access Track were surveyed. This was considered a proportionate approach to ensure the survey focussed on the trees the client was concerned by.

2.5.3 Soil assessments were not undertaken, as part of the assessment of the trees.

2.5.4 A topographical survey of the trees was not provided by the client, therefore the use of Ordnance Survey plans were used.

2.5.5 Full limitations of this report and disclaimers are provided in Appendix A.

Figure 2-1: Survey Site Location Map

3 Statutory Protection

3.1 Tree Preservation Orders and Conservation Areas

3.1.1 Tree Preservation Orders (TPOs) and locations within a Conservation Area (CA) place various restrictions on the felling, pruning or damage to trees, subject to various exemptions. If a site is within a CA and/or does have TPOs then there would likely be an exemption from the requirement to seek consent to fell or carry out works to trees where it is deemed that these works are strictly necessary to implement a scheme approved by Local Planning Authority.

3.1.2 A desk study was undertaken to try and determine whether any trees within or adjacent to the site are protected. The location of the trees is outside of the nearest Conservation Area.

3.1.3 Using Doncaster Council's Online TPO Map[2], it is indicated that no trees within the location are subject of protection.

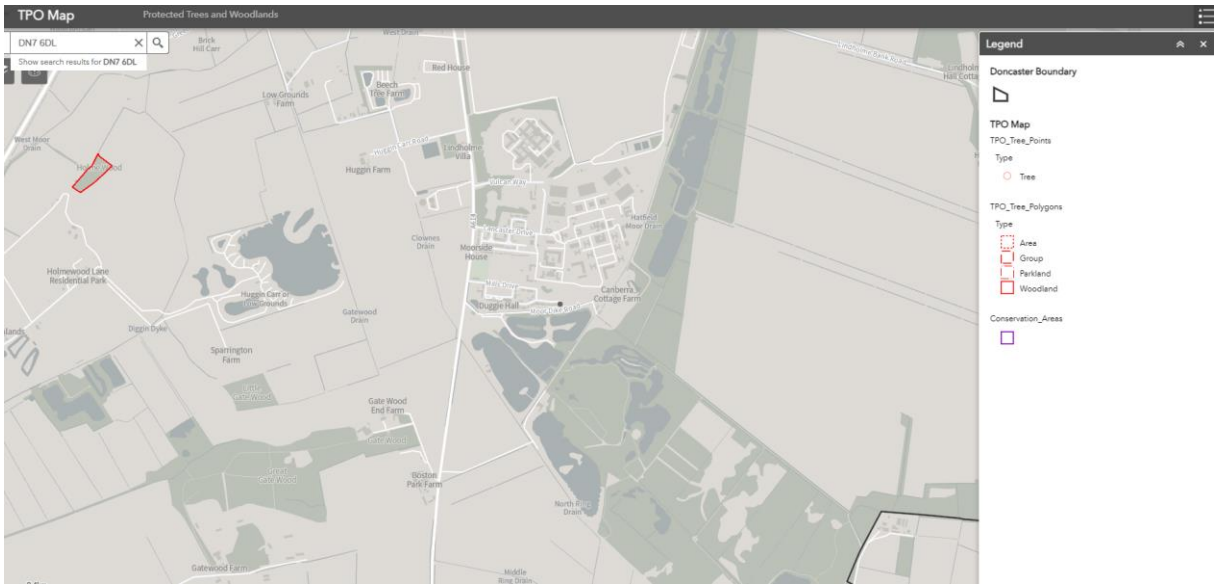


Figure 3-1 Screenshot taken of location from Doncaster TPO Map website

3.1.4 It is however recommended that prior to works being undertaken that further inquiries are made with the Local Planning Authority to confirm the status of the affected trees.

3.2 Felling Licences

3.2.1 Tree felling on non-residential land is also controlled by the need to obtain a Tree Felling Licence from the Forestry Commission before felling more than 5 cubic metres in any calendar quarter (e.g., Jan to Mar, Apr to Jun, Jul to Sep and Oct to

2 https://maps.doncaster.gov.uk/portal/apps/webappviewer/index.html?id=97c201c8cb9a4f719e88d6164400c1a3

Dec). Five cubic metres is roughly equivalent to one large Oak tree or 50 thin Chestnut coppice trees felling, subject to various exemptions and variations.

3.2.2 It is considered that the site is likely to be under the requirements of a Felling Licence if removal of trees was undertaken.

3.3 Protected Species

3.3.1 Trees and scrub provide habitat for a wide range of species, some of which are protected. Most nesting birds and their nests are protected by the Wildlife and Countryside Act 1981 (as amended).

3.3.2 All bats and their roosts are protected by the Wildlife and Countryside Act 1981 (as amended) and gain additional protection under the Conservation of Habitats and Species Regulations 2010 (as amended).

3.3.3 Prior to any works (pruning, removal of trees) or development works near trees is undertaken it is recommended that the trees are inspected by a suitably competent and experienced person (e.g., ecologist) to confirm the absence of protected species, nesting birds or bats.

3.4 Hedgerow Regulations

3.4.1 Hedgerows on agricultural land are protected under the Hedgerow Regulations 1997.

3.4.2 Hedgerows should not be removed without serving appropriate notice on the LPA, who can require the retention of hedgerows deemed ‘important’ under the Regulations. There is an exemption from the requirement to serve notice where hedge removal is necessary to implement a scheme that has received full planning approval.

3.5 Non-Statutory Tree Designations

3.5.1 A search of the Woodland Trust's Ancient Tree Inventory (ATI) indicates that no trees within the site are recorded as being Notable, Veteran or Ancient.

Figure 3-2 Screenshot taken from Ancient Tree Inventory Search

4 Methodology

4.1 Methodology

4.1.1 The site was visited on the 11th of January 2023 and an inspection of the trees on site and survey data was collected and recorded in accordance good practice guidance. All surveying was carried out at ground level and no aerial inspections were undertaken.

4.1.2 A Topographical Survey was not provided for the access track therefore the tree positions have been plotted using a GIS enable device and OS mapping and aerial imaging of the site. This information forms the basis of the Tree Plans (Appendix E).

4.1.3 Individual trees that were surveyed and with a stem diameter of over 150mm diameter at 1.5m from ground level were included in the survey. But the wooded understorey even with a stem diameter of over 150mm was not included as it was considered that due to the height or proximity that this was likely to have a limited implications to users of the access track.

4.1.4 Where deemed appropriate hedgerows, woodlands or groupings of trees were surveyed as such, for example: due to the stems being <150mm in diameter and/or due to their density, which would indicate that a combined denomination was more appropriate, such as due densely wooded locations with close canopies.

4.1.5 The following information was collected for each tree surveyed: species, age class, height, radial crown spread and height of the crown above the ground (excluding basal sprouts and epicormic branches). Limitations for the survey can be found in Appendix A. Stem diameter was estimated as in most instances due to extensive undergrowth or terrain, the use of a DBH tape to accurately measure the stems was hindered, it is not considered to be of significance the overall survey and does not affect the recommendations or outcomes of this survey.

4.1.6 A visual assessment was made of the trees' physiological and structural condition, noting any notable disorders or biomechanical features that present an obvious hazard to present or future users of the site or affect the trees' life expectancy. Preliminary management works were deemed appropriate and proposed to either remove/reduce hazards or promote good future growth of the tree.

4.2 Bat Ground Level Tree Assessment (GLTA)

4.2.1 In addition to the methodology outlined, the summarised results of the Ground Level Assessment Report[3] for Potential Roost Features (PRF) in trees, were included in the Tree Survey Schedule (See Appendix C) along with the identified features.

4.2.2 The PRFs identified have been included within the Work recommendations (See D) for ease of interpretation by potential tree contractors and to make them aware of the PRFs before undertaking any work on trees.

4.2.3 Below (Table 4-1) is a list of the classifications and definitions used by the Ecologists.

Table 4-1: Definitions used in the GLTA for assessment of suitability of trees for use by roosting bats.

Classification	Description
NONE	Either no PRFs in the tree or highly unlikely to be any
FAR	Further Assessment Required (FAR) to establish if PRFs are present in the tree.
PRF-I	A tree with at least one Potential Roost Feature (PRF) present, but that is only suitable for use by individual bats or very small numbers of bats either due to size or lack of suitable surrounding habitats.
PRF-M	A tree with at least one Potential Roost Feature (PRF) present, and that is suitable for multiple bats and may therefore be used by a maternity colony or potentially for hibernation.

3 LRO-JBA-00-00-RP-BD-0001-S3-P01-Bat_GLTA_Report

5 Survey Results and Recommendations

5.1.1 The tree survey schedule for the site can be found in Appendix C.

5.1.2 A total of 49 individual trees, were surveyed.

5.2 General Work Recommendations

5.2.1 General work recommendations have been recorded for the following trees, these recommendations are considered in accordance with good arboricultural management practices.

5.2.2 Where deemed appropriate, the recommendations have been specified to indicate if they are in the direct interests of the client (NNR) or the landowner of the fisheries (third-party), or both. An example of this would be the removal of a faulted branch from T022, which would be in the interest of the landowner of the fisheries in making safe a tree which could affect the safety of visitors to the lakes, but in contrast, the removal or retention of the branch would have no foreseeable impact or benefit to the client.

5.2.3 A total of 25 trees have been given recommendations, which are summarised as:

- 11x Repollard (T007 - 012, 014, 016, 021, 034, 036)
- 1x Reduce crown (T035)
- 8x Fell or reduce and retain as a habitat pole (T017, 019, 020, 025, 028, 029, 031, 033, 035)
- 1x Fell (T006)
- 1x Remove fallen stem from ditch (if desired) (T030)
- 2x Remove the faulted branch (T022, 026)
- 1x Continue to monitor condition (T004)
- T004 - Removal of a faulted branch over the access path.

5.2.4 The recommendations afforded should be discussed and explicit agreement sort with the Fisheries Landowner, as the trees are their property and any works beyond the boundary of the NNR site or requiring access to their land should be undertaken with their permission.

5.2.5 No other recommendations for the reasons of good arboricultural management practices, have been provided at this time.

5.3 Future or Alternative Management Recommendations

5.3.1 The reduction to retain main stems of 8x trees as habitat poles was deemed appropriate, either due to the extent of branch failure in crown, or due to the condition and vigour of the trees.

5.3.2 Eleven (11x) trees were recommended for pollarding, and this would afford the retention of the trees on an on-going cyclical works regime. It is however recognised that this type of work does come with an inherent cost, and that without active management further branch failures of the willows (adjacent to the NNR track) will foreseeably occur.

5.3.3 Whilst on-site the potential removal (i.e. fell to ground level) of the lapsed willow pollards was discussed with the client. It is considered that the removal of the trees would have a limited impact on the amenity of the locale due to the relative tree cover retained. This could be undertaken instead of the prescribed recommendations. The removal of the noted high-risk trees would reduce the requirement for ongoing management of retained pollard trees.

A Limitations of report & disclaimers

1. No technical survey equipment was used to carry out the assessments except a diameter tape, hypsometer, mallet, and probe. The same methodology was applied to all the trees (i.e. an assessment was made starting at the base of each tree and moving up the stem into the crown, an assessment of the canopy was made by viewing the tree at distance & from underneath the canopy).

2. All assessments were carried out from ground level. A detailed inspection and/or decay detection tests have not been undertaken as this fell outside the scope of the survey. All dimensions are given in meters (m) and millimetres (mm) are approximate, unless stated otherwise.

3. This survey is unless otherwise specified is not a complete survey of all trees within the locale. Further, assessment beyond what is undertaken in a Visual Tree Assessment (VTA) inspection of each survey tree was not undertaken and excludes any potentially invasive inspections or the use of testing equipment, unless specified.

4. Sketches, diagrams, graphs and photographs in this report, being intended as visual aids, are not necessarily to scale (unless stated) and should not be construed as engineering or architectural reports or surveys.

5. Unless expressed otherwise;
   1) information contained in this report covers only those items that were examined and reflects the condition of those items at the time of inspection;
   2) The inspection is limited to visual examination of accessible items. There is no warranty or guarantee, expressed or implied, that problems or deficiencies of the plant or property in question may not arise in the future.

6. Trees are living organisms whose health and condition can change rapidly, the health, condition, and safety of trees should be checked on a regular basis. This period of validity of a report may be reduced in the case of any change in conditions to or in proximity to the tree.

7. This survey was undertaken by walking around the site and assessing all trees of significance (in respect to diameter of stem, height of tree and relative proximity to access track) on/or adjacent to the site for development. Unless otherwise expressed, only visual assessments were made of these trees.

8. Care has been taken to obtain all information from reliable sources. All data has been verified insofar as possible; however, the consultant can neither guarantee nor be responsible for the accuracy of information provided by others. Any legal

description provided to the consultant is assumed to be correct. Any titles and ownership to any property are assumed to be good and marketable. No responsibility is assumed in character.

9. This report is for the sole use of the named client and refers to only those trees identified within the identified boundaries; alteration or use by other(s) in attempting to apply its contents for any other purpose renders the report invalid for that purpose.

10. Possession of this report or a copy thereof does not imply right of publication or use for any purpose by any other person to whom it is addressed, without prior expressed written or verbal consent (witnessed) of the consultant.

B Explanation of Tree Condition and Definitions

Tree Conditions			
Physiological Condition		Structural Condition	
Poor	Several instances of disease, pest or pathogen, specific infections, scale of infections, large scale or large size deadwood present. Epicormic Growth.	Poor	Defects in growth, broken/ splits in major branches, congested stems, tight forks, major leaning, hazard beams, advanced decay at critical points. Significant Deadwood present.
Fair	Frequent instance of disease or pest, damage, epicormic growth, multiple symptoms of stress.	Fair	Several minor or occasional major defects, non-critical decay, some dead wood present throughout crown.
Good	Minor disease or pest infestation, not exhibiting symptoms of stress, small instances of dead wood.	Good	Well grown balanced tree, open branch structure, open forks etc.

Defining Age Class/ Maturity	Definition
Dead	Dead
Newly planted	Planted since last annual survey
Young	<20% of life expectancy for species
Semi-mature	>20-50% of life expectancy for species
Early Mature	>50-70% of life expectancy for species
Mature	>70%-99% of life expectancy for species
Ancient	A tree that has resided in exceptional antiquity and is >100% beyond the estimated life expectancy for species.
Veteran	A veteran tree has features associated with advanced age (for its species), having the connotation of a ‘battle-scarred survivor’.

Priority for works	Definition
Urgent	Requires immediate attention
1 Month	Within 1 month from report being issued
3 Months	Within 3 months from report being issued
6 Months	Within 6 months from report being issued
1 Year	Within 1 Year from report being issued
2 Year	Within 2 Years from report being issued
3 Year	Within 3 Years from report being issued
4 Year	Within 4 Years from report being issued
5 Year	Within 5 Years from report being issued
By next survey	Before the next tree survey is carried out
No action	Recommended works but not necessary on basis of safety reasons.

C Tree Survey Schedule

Tree Condition Survey

JBA Project Code: 2024s0035
Contract Name: Hatfield Moors Arboricultural Survey
Date of Inspection: 11/01/2024
Author: Stephen Tester - BSc (hons) Arb, MArborM, MICFor

Tree ID Ref	Species	Full Structure	Height	DBH (cm)	Crown Radius	Life Stage	Life Expectancy	Spread	Photo	Photo	Survey Notes	Description of Target and Identified Tree Part	Risk Assessment	Hazard Category	Public Value, Bat Category and Feature, Inspection Limitations	Recommendations
T001	Lombardy poplar *(Populus nigra italica)*	Tree	20	65	3.00	Early Mature	30+ Years	N:3 E:3 S:3 W:3				Target # - footpath.	Failure Potential: Size of Part: Target Rating: Hazard Rating: Hazard Category:	N/A	Public Amenity Value: Moderate Bat Category / Feature: N/A Inspection Limitations: None	
T002	Scots pine *(Pinus sylvestris)*	Tree	12	30	2.50	Semi Mature	40+ Years	N:2.5 E:2.5 S:2.5 W:2.5			Asymmetrical crown due to competition for light on West Side of crown. Old bark wound on West Side at 1m but well sealed.	Target # - footpath.	Failure Potential: Size of Part: Target Rating: Hazard Rating: Hazard Category:	N/A	Public Amenity Value: Low Bat Category / Feature: N/A Inspection Limitations: None	
T002a	Common birch *(Betula alba)*	Tree 2 stems	8	30	2.00	Semi Mature	30+ Years	N:2 E:2 S:2 W:2				Target # - footpath.	Failure Potential: Size of Part: Target Rating: Hazard Rating: Hazard Category:	N/A	Public Amenity Value: Low Bat Category / Feature: N/A Inspection Limitations: None	
T003	White willow *(Salix alba)*	Tree	14	80	2.50	Mature	20+ Years	N:2.5 E:2.5 S:2.5 W:2.5			Pollarded at main forks circa 3m from base. Tree has failed and fallen over stem. No action needed unless removal is desired.	Fallen across ditch. No notable targets	Failure Potential: Size of Part: Target Rating: Hazard Rating: Hazard Category:	N/A	Public Amenity Value: Low Bat Category / Feature: N/A Inspection Limitations: Access	
T003a	Common birch *(Betula alba)*	Tree	12	30	3.00	Semi Mature	30+ Years	N:3 E:3 S:3 W:3			Cankers/Galls/Burls on trunk.	Target # - footpath.	Failure Potential: Size of Part: Target Rating: Hazard Rating: Hazard Category:	N/A	Public Amenity Value: Low Bat Category / Feature: N/A Inspection Limitations: None	

Tree Condition Survey

JBA Project Code: 2024s0035
Contract Name: Hatfield Moors Arboricultural Survey
Date of Inspection: 11/01/2024
Author: Stephen Tester - BSc (hons) Arb, MArborM, MICFor

Tree ID Ref	Species	Full Structure	Height	DBH (cm)	Crown Radius	Life Stage	Life Expectancy	Spread	Photo	Photo	Survey Notes	Description of Target and Identified Tree Part	Risk Assessment	Hazard Category	Public Value, Bat Category and Feature, Inspection Limitations	Recommendations
T003b	Common birch *(Betula alba)*	Tree	15	30	3.00	Semi Mature	30+ Years	N:3 E:3 S:3 W:3				Target # - footpath.	Failure Potential: Size of Part: Target Rating: Hazard Rating: Hazard Category:	N/A	Public Amenity Value: Low Bat Category / Feature: N/A Inspection Limitations: None	
T004	Common birch *(Betula alba)*	Tree 2 stems	10	35	3.00	Semi Mature	20+ Years	N:3 E:3 S:3 W:3			Secondary stem 18cm diameter * Branches - previously reduced/ topped at	Part# - Primary Branching Target # - footpath.	Failure Potential: Low(1) Size of Part: 150-450mm(2) Target Rating: Occasional use(1) Hazard Rating: 4 Hazard Category: Low	Low	Public Amenity Value: Low Bat Category / Feature: N/A Inspection Limitations: None	No pruning works needed, continue to monitor. Work recommendations for third party Timescale: 11-Jan-2027 (3 Years)
T004a	Common birch *(Betula alba)*	Tree	16	37	3.00	Semi Mature	30+ Years	N:3 E:3 S:3 W:3				Target # - footpath.	Failure Potential: Size of Part: Target Rating: Hazard Rating: Hazard Category:	N/A	Public Amenity Value: Moderate Bat Category / Feature: N/A Inspection Limitations: None	
T005	Pedunculate oak *(Quercus robur)*	Tree 2 stems	13	40	5.00	Early Mature	50+ Years	N:5 E:5 S:5 W:5			Stems 40, 26cm Diameters * Branches previously topped at 9m fused limb at 2m from ground level bracing between stems.	Adjacent to ditch edge Owned by neighbour.2 Target # - footpath.	Failure Potential: Size of Part: Target Rating: Hazard Rating: Hazard Category:	N/A	Public Amenity Value: Good Bat Category / Feature: N/A Inspection Limitations: Water Course	
T006	Common ash *(Fraxinus excelsior)*	Tree 2 stems	14	28	2.00	Semi Mature	40+ Years	N:2 E:2 S:2 W:2			Tight union on secondary stem, Both Stems subject of cracking and splitting and stems likely to fail.	Target # - footpath. Part# - Stem/s	Failure Potential: High(3) Size of Part: 150-450mm(2) Target Rating: Intermittent use(2) Hazard Rating: 7 Hazard Category: Medium	Medium	Public Amenity Value: Moderate Bat Category / Feature: PRF-I / Subsistence Crack Inspection Limitations: Water Course	Work recommendations for third-party Fell tree. Timescale: 11-Jan-2025 (1 Year)

Tree Condition Survey

JBA Project Code: 2024s0035
Contract Name: Hatfield Moors Arboricultural Survey
Date of Inspection: 11/01/2024
Author: Stephen Tester - BSc (hons) Arb, MArborM, MICFor

Tree ID Ref	Species	Full Structure	Height	DBH (cm)	Crown Radius	Life Stage	Life Expectancy	Spread	Photo	Photo	Survey Notes	Description of Target and Identified Tree Part	Risk Assessment	Hazard Category	Public Value, Bat Category and Feature, Inspection Limitations	Recommendations
T007	White willow *(Salix alba)*	Tree	16	80	4.00	Mature	30+ Years	N:4 E:4 S:4 W:4			Previously pollarded at approximately 8m from ground level. Branching has split out and failed on old pollard points. Old wound/ Cavity on North side of tree running from 1m to 2m from ground level.	Target # - footpath. Part# - Primary Branching Lakeside tree.	Failure Potential: Medium(2) Size of Part: 150-450mm(2) Target Rating: Occasional use(1) Hazard Rating: 5 Hazard Category: Medium	Medium	Public Amenity Value: Low Bat Category / Feature: PRF-M / Tear out Inspection Limitations: None	Repollard and repeat on a five-year cycle Work recommendations for third-party Timescale: 11-Jul-2024 (6 Months)
T008	White willow *(Salix alba)*	Tree	18	80	4.00	Mature	30+ Years	N:4 E:4 S:4 W:4			Previously pollards at approximately 8m from ground level.	Lakeside tree. Target # - footpath. Part# - Primary Branching	Failure Potential: Medium(2) Size of Part: 150-450mm(2) Target Rating: Occasional use(1) Hazard Rating: 5 Hazard Category: Medium	Medium	Public Amenity Value: Low Bat Category / Feature: N/A Inspection Limitations: Water Course	Repollard and repeat on a five-year cycle Work recommendations for third-party Timescale: 11-Jul-2024 (6 Months)
T009	White willow *(Salix alba)*	Tree	19	80	4.00	Mature	20+ Years	N:4 E:4 S:4 W:4			Previously pollards at approximately 9m from ground level. Branching has split out and is hjng up, failed on old pollard points. Bifurcated at 4.5m from ground level.	Target # - footpath. Part# - Primary Branching	Failure Potential: High(3) Size of Part: 150-450mm(2) Target Rating: Intermittent use(2) Hazard Rating: 7 Hazard Category: Medium	Medium	Public Amenity Value: Moderate Bat Category / Feature: N/A Inspection Limitations: None	Repollard and repeat on a five-year cycle. Work recommendations for Client Work recommendations for third-party Timescale: 11-Jul-2024 (6 Months)
T010	White willow *(Salix alba)*	Tree	19	90	4.00	Mature	30+ Years	N:4 E:4 S:4 W:4			Previously pollards at approximately 8m from ground level. Split and failed branching at Old pollard points. Multi-spired form.	Target # - footpath. Part# - Primary Branching	Failure Potential: Medium(2) Size of Part: 150-450mm(2) Target Rating: Intermittent use(2) Hazard Rating: 6 Hazard Category: Medium	Medium	Public Amenity Value: Moderate Bat Category / Feature: N/A Inspection Limitations: None	Repollard and repeat on a five-year cycle Work recommendations for Client Work recommendations for third-party Timescale: 11-Jul-2024 (6 Months)
T011	White willow *(Salix alba)*	Tree	18	70	4.00	Mature	30+ Years	N:4 E:4 S:4 W:4			Previously pollards at approximately 9m from ground level. Branching has split out and failed on old pollard points. Maise Gill on old cut stump on southeastern side, 0.5m from ground level. Multi-spired form.	Target # - footpath. Part# - Primary Branching	Failure Potential: High(3) Size of Part: 150-450mm(2) Target Rating: Intermittent use(2) Hazard Rating: 7 Hazard Category: Medium	Medium	Public Amenity Value: Moderate Bat Category / Feature: N/A Inspection Limitations: None	Repollard and repeat on a five-year cycle Work recommendations for Client Work recommendations for third-party Timescale: 11-Jul-2024 (6 Months)

Tree Condition Survey

Tree ID Ref	Species	Full Structure	Height	DBH (cm)	Crown Radius	Life Stage	Life Expectancy	Spread	Photo	Photo	Survey Notes	Description of Target and Identified Tree Part	Risk Assessment	Hazard Category	Public Value, Bat Category and Feature, Inspection Limitations	Recommendations
T012	White willow *(Salix alba)*	Tree	19	70	4.00	Mature	30+ Years	N:4 E:4 S:4 W:4			Previously pollards at approximately 8m from ground level. Multi-spired form	Target # - footpath. Part# - Primary Branching	Failure Potential: Medium(2) Size of Part: 150-450mm(2) Target Rating: Intermittent use(2) Hazard Rating: 6 Hazard Category: Medium	Medium	Public Amenity Value: Moderate Bat Category / Feature: N/A Inspection Limitations: Dense Vegetation	Repollard and repeat on a five-year cycle. Work recommendations for Client Timescale: 11-Jul-2024 (6 Months)
T013	White willow *(Salix alba)*	Tree 3 stems	25	45	6.00	Mature	30+ Years	N:6 E:6 S:6 W:6			3x stems averaged.Bark wound on most easterly stem due to an adjacent tree failing into tree stem. Extensive dieback in upper crown on 1x stem over footpath, but relatively small diameter branching.	Lakeside tree. Target # - footpath. Part# - Primary Branching	Failure Potential: Low(1) Size of Part: 150-450mm(2) Target Rating: Intermittent use(2) Hazard Rating: 5 Hazard Category: Medium	Medium	Public Amenity Value: Low Bat Category / Feature: N/A Inspection Limitations: Water Course	
T014	White willow *(Salix alba)*	Tree	15	70	4.00	Mature	30+ Years	N:4 E:4 S:4 W:4			Previously pollards at approximately 6m from ground level. Multi-spired form	Target # - footpath. Part# - Primary Branching	Failure Potential: Medium(2) Size of Part: 150-450mm(2) Target Rating: Intermittent use(2) Hazard Rating: 6 Hazard Category: Medium	Medium	Public Amenity Value: Moderate Bat Category / Feature: N/A Inspection Limitations: None	Repollard and repeat on a five-year cycle. Work recommendations for Client Work recommendations for third-party Timescale: 11-Jan-2025 (1 Year)
T015	White willow *(Salix alba)*	Tree	23	80	5.00	Mature	30+ Years	N:5 E:5 S:5 W:5			Ivy on stem inhibits further inspection. Multi-spired form, but not pollarded.	Target # - footpath.	Failure Potential: Size of Part: Target Rating: Hazard Rating: Hazard Category:	N/A	Public Amenity Value: Low Bat Category / Feature: N/A Inspection Limitations: None	
T016	White willow *(Salix alba)*	Tree	17	70	4.00	Mature	30+ Years	N:4 E:4 S:4 W:4			Previously pollards at approximately 7m from ground level. Multi-spired form. Woodpecker hole on western stem.	Target # - footpath. Part# - Primary Branching	Failure Potential: Medium(2) Size of Part: 150-450mm(2) Target Rating: Intermittent use(2) Hazard Rating: 6 Hazard Category: Medium	Medium	Public Amenity Value: Moderate Bat Category / Feature: N/A Inspection Limitations: None	Repollard and repeat on a five-year cycle. Work recommendations for Client Work recommendations for third-party Timescale: 11-Jul-2024 (6 Months)

Tree Condition Survey

JBA Project Code: 2024s0035
Contract Name: Hatfield Moors Arboricultural Survey
Date of Inspection: 11/01/2024
Author: Stephen Tester - BSc (hons) Arb, MArborM, MICFor

Tree ID Ref	Species	Full Structure	Height	DBH (cm)	Crown Radius	Life Stage	Life Expectancy	Spread	Photo	Photo	Survey Notes	Description of Target and Identified Tree Part	Risk Assessment	Hazard Category	Public Value, Bat Category and Feature, Inspection Limitations	Recommendations
T017	White willow *(Salix alba)*	Tree	16	70	4.00	Mature	20+ Years	N:4 E:4 S:4 W:4			Previously pollards at approximately 7m from ground level. Further branching split outs and hung up in crown.	Target # - footpath. Part# - Primary Branching	Failure Potential: Medium(2) Size of Part: 150-450mm(2) Target Rating: Intermittent use(2) Hazard Rating: 6 Hazard Category: Medium	Medium	Public Amenity Value: Moderate Bat Category / Feature: N/A Inspection Limitations: None	Reduce to approximately 5-6m in height to retain as a habitat pole, or fell. Work recommendations for Client Work recommendations for third-party Timescale: 11-Jul-2024 (6 Months)
T018	White willow *(Salix alba)*	Tree	18	37	2.50	Semi Mature	40+ Years	N:2.5 E:2.5 S:2.5 W:2.5				Lakeside tree. Target # - footpath. Part# - Primary Branching	Failure Potential: Low(1) Size of Part: less than 150mm(1) Target Rating: Intermittent use(2) Hazard Rating: 4 Hazard Category: Low	Low	Public Amenity Value: Low Bat Category / Feature: N/A Inspection Limitations: Water Course	
T019	White willow *(Salix alba)*	Tree	13	70	4.00	Mature	30+ Years	N:4 E:4 S:4 W:4			Previously pollards at approximately 7m from ground level. Multiple branching split out and hung up in crowns of adjacent trees over footpath of lakes.	Target # - footpath. Part# - Primary Branching	Failure Potential: High(3) Size of Part: 150-450mm(2) Target Rating: Intermittent use(2) Hazard Rating: 7 Hazard Category: Medium	Medium	Public Amenity Value: Moderate Bat Category / Feature: N/A Inspection Limitations: None	Fell or reduce and retain as a habitat pole of approximately 4m in height. Work recommendations for third-party Work recommendations for Client Timescale: 11-Apr-2024 (3 Months)
T020	White willow *(Salix alba)*	Tree	16	70	4.00	Mature	30+ Years	N:4 E:4 S:4 W:4			Previously pollards at approximately 7m from ground level. Branching split out and hung up in crown and over footpath for lakes.	Target # - footpath. Part# - Primary Branching	Failure Potential: High(3) Size of Part: 150-450mm(2) Target Rating: Intermittent use(2) Hazard Rating: 7 Hazard Category: Medium	Medium	Public Amenity Value: Moderate Bat Category / Feature: N/A Inspection Limitations: None	Fell or reduce and retain as a habitat pole of approximately 4m in height. Work recommendations for Client Work recommendations for third-party Timescale: 11-Jul-2024 (6 Months)
T021	White willow *(Salix alba)*	Tree	19	70	4.00	Mature	30+ Years	N:4 E:4 S:4 W:4			Previously pollards at approximately 7m from ground level. Crown condition indicates limited vigour. Ivy on stem hindering inspection.	Target # - footpath. Part# - Primary Branching	Failure Potential: Low(1) Size of Part: 150-450mm(2) Target Rating: Intermittent use(2) Hazard Rating: 5 Hazard Category: Medium	Medium	Public Amenity Value: Moderate Bat Category / Feature: N/A Inspection Limitations: Ivy	Repollard and repeat on a five year cycle Work recommendations for third-party Timescale: 11-Jan-2025 (1 Year)

Tree Condition Survey

Tree ID Ref	Species	Full Structure	Height	DBH (cm)	Crown Radius	Life Stage	Life Expectancy	Spread	Photo	Photo	Survey Notes	Description of Target and Identified Tree Part	Risk Assessment	Hazard Category	Public Value, Bat Category and Feature, Inspection Limitations	Recommendations
T022	White willow *(Salix alba)*	Tree	25	100	5.00	Mature	30+ Years	N:5 E:5 S:5 W:5			1x branch hung up over footpath for lakes. Previously failed branch gone. Stub is still in situ.	Lakeside tree. Target # - footpath.	Failure Potential: Low(1) Size of Part: 150-450mm(2) Target Rating: Intermittent use(2) Hazard Rating: 5 Hazard Category: Medium	N/A	Public Amenity Value: Low Bat Category / Feature: PRF-M / Hazard beam, knot hole, Woodpecker hole. Inspection Limitations: Watercourse	Localise pruning of failed branching over footpath Work recommendations for third-party Timescale: Urgent
T024	Scots pine *(Pinus sylvestris)*	Tree	15	30	2.50	Semi Mature	50+ Years	N:2.5 E:2.5 S:2.5 W:2.5			Asymmetrical crown due to competition for light from willow on west side of crown.	Target # - footpath.	Failure Potential: Improbable(0) Size of Part: less than 150mm(1) Target Rating: Intermittent use(2) Hazard Rating: 3 Hazard Category: Low	Low	Public Amenity Value: Low Bat Category / Feature: N/A Inspection Limitations: Watercourse	
T025	White willow *(Salix alba)*	Tree	16	70	4.00	Mature	10+ Years	N:4 E:4 S:4 W:4			Previously pollards at approximately 7m. Recent failed and snapped out branching hung up in crown of T028. Limited vigour throughout crown.	Target # - footpath. Part# - Primary Branching	Failure Potential: High(3) Size of Part: 150-450mm(2) Target Rating: Intermittent use(2) Hazard Rating: 7 Hazard Category: Medium	Medium	Public Amenity Value: Moderate Bat Category / Feature: PRF-I / Knot holes Inspection Limitations: None	Fell or reduce and retain as a habitat pole of approximately 4m in height. Work recommendations for Client Timescale: 11-Jul-2024 (6 Months)
T026	White willow *(Salix alba)*	Tree	25	100	5.00	Mature	30+ Years	N:5 E:5 S:5 W:5			Branching split out and hung up, but over pond side (west)	Target # - footpath. Part# - Primary Branching	Failure Potential: Low(1) Size of Part: 150-450mm(2) Target Rating: Intermittent use(2) Hazard Rating: 5 Hazard Category: Medium	Medium	Public Amenity Value: Low Bat Category / Feature: N/A Inspection Limitations: Water Course	Remove faulted limb. Work recommendations for third-party Timescale: 11-Jul-2024 (6 Months)
T027	White willow *(Salix alba)*	Tree	25	100	5.00	Mature	30+ Years	N:5 E:5 S:5 W:5			Trifucated.	Target # - footpath.	Failure Potential: Size of Part: Target Rating: Hazard Rating: Hazard Category:	N/A	Public Amenity Value: Moderate Bat Category / Feature: N/A Inspection Limitations: None	

Tree Condition Survey

Tree ID Ref	Species	Full Structure	Height	DBH (cm)	Crown Radius	Life Stage	Life Expectancy	Spread	Photo	Photo	Survey Notes	Description of Target and Identified Tree Part	Risk Assessment	Hazard Category	Public Value, Bat Category and Feature, Inspection Limitations	Recommendations
T028	White willow *(Salix alba)*	Tree	18	80	4.00	Mature	30+ Years	N:4 E:4 S:4 W:4			Previously pollards at approximately 7m. Failed snapped out branching at decayed pollard points, including recent bough failures and bough split/ fracture. Limited vigour throughout crown.	Target # - footpath. Part# - Primary Branching	Failure Potential: High(3) Size of Part: 150-450mm(2) Target Rating: Intermittent use(2) Hazard Rating: 7 Hazard Category: Medium	Medium	Public Amenity Value: Moderate Bat Category / Feature: PRF-M / Woodpecker hole, Shearing split. Inspection Limitations: None	Fell or reduce and retain as a habitat pole of approximately 4m in height. Work recommendations for Client Work recommendations for third-party Timescale: 11-Jul-2024 (6 Months)
T029	White willow *(Salix alba)*	Tree	16	70	4.00	Mature	10+ Years	N:4 E:4 S:4 W:4			Previously pollards at approximately 7m. Failed snapped out branching at Old pollard points. Laetiporus on south side of stem at 1.5m from ground level. Fungus: Laetiporus sulphureus (Chicken of the Woods)	Target # - footpath. Part# - Stem Part# - Primary Branching	Failure Potential: High(3) Size of Part: 150-450mm(2) Target Rating: Intermittent use(2) Hazard Rating: 7 Hazard Category: Medium	Medium	Public Amenity Value: Moderate Bat Category / Feature: PRF-M / Woodpecker hole, lifting bark, knot hole. Inspection Limitations: None	Fell or reduce and retain as a habitat pole of approximately 4m in height. Work recommendations for Client Timescale: 11-Jul-2024 (6 Months)
T030	White willow *(Salix alba)*	Tree	0	80	4.00	Over Mature	Dead	N:4 E:4 S:4 W:4			Tree has failed at base and fallen East across ditch.	N/A	Failure Potential: Size of Part: Target Rating: Hazard Rating: Hazard Category:	N/A	Public Amenity Value: Low Bat Category / Feature: N/A Inspection Limitations: Water Course	Either leave as feature or could be pulled out of the ditch to side. Work recommendations for Client Work recommendations for third-party Timescale: No Action
T031	White willow *(Salix alba)*	Tree	19	80	4.00	Over Mature	10+ Years	N:4 E:4 S:4 W:4			Previously pollarded at approximately 5m. Failed snapped out branching. Limited vigour throughout crown. Decay on main stem, with flaking bark.	Target # - footpath. Part# - Primary Branching	Failure Potential: Medium(2) Size of Part: 450-900mm(3) Target Rating: Intermittent use(2) Hazard Rating: 7 Hazard Category: Medium	Medium	Public Amenity Value: Moderate Bat Category / Feature: PRF-M / Woodpecker hole, lifting bark, knot hole. Inspection Limitations: None	Reduce to approximately 4m in height as habitat pole, or fell. Work recommendations for Client Timescale: 11-Jul-2024 (6 Months)
T032	Silver birch *(Betula pendula)*	Tree	16	32	3.00	Early Mature	30+ Years	N:3 E:3 S:3 W:3				Target # - footpath.	Failure Potential: Size of Part: Target Rating: Hazard Rating: Hazard Category:	N/A	Public Amenity Value: Moderate Bat Category / Feature: N/A Inspection Limitations: None	
T033	White willow *(Salix alba)*	Tree	18	80	4.00	Over Mature	10+ Years	N:4 E:4 S:4 W:4			Previously pollarded at approximately 6m. Failed snapped out branching, hung up in the crown. Habitat and woodpecker holes are evident. Maise Gill (Daedalea ssp.) on stem.	Target # - footpath. Part# - Stem Part# - Primary Branching	Failure Potential: Medium(2) Size of Part: 150-450mm(2) Target Rating: Intermittent use(2) Hazard Rating: 6 Hazard Category: Medium	Medium	Public Amenity Value: Low Bat Category / Feature: PRF-M / Tear out. Inspection Limitations: None	Fell or reduce and retain as a habitat pole of approximately 3m in height. Work recommendations for Client Timescale: 11-Jul-2024 (6 Months)

Tree Condition Survey

JBA Project Code: 2024s0035
Contract Name: Hatfield Moors Arboricultural Survey
Date of Inspection: 11/01/2024
Author: Stephen Tester - BSc (hons) Arb, MArborM, MICFor

Tree ID Ref	Species	Full Structure	Height	DBH (cm)	Crown Radius	Life Stage	Life Expectancy	Spread	Photo	Photo	Survey Notes	Description of Target and Identified Tree Part	Risk Assessment	Hazard Category	Public Value, Bat Category and Feature, Inspection Limitations	Recommendations
T034	White willow *(Salix alba)*	Tree	20	80	4.00	Over Mature	10+ Years	N:4 E:4 S:4 W:4			Previously pollarded at approximately 6m. Old bird nest at pollard point on East Side of crown.	Target # - footpath. Part# - Primary Branching	Failure Potential: Medium(2) Size of Part: 150-450mm(2) Target Rating: Intermittent use(2) Hazard Rating: 6 Hazard Category: Medium	Medium	Public Amenity Value: Moderate Bat Category / Feature: N/A Inspection Limitations: None	Repollard and repeat on a five year cycle. Work recommendations for Client Work recommendations for third-party Timescale: 11-Jul-2024 (6 Months)
T035	White willow *(Salix alba)*	Tree	16	80	4.00	Over Mature	10+ Years	N:4 E:4 S:4 W:4			Previously pollarded at approximately 6m. Failed snapped out branching, hung up in crown.	Target # - footpath. Part# - Primary Branching	Failure Potential: High(3) Size of Part: 150-450mm(2) Target Rating: Intermittent use(2) Hazard Rating: 7 Hazard Category: Medium	Medium	Public Amenity Value: Moderate Bat Category / Feature: PRF-M / Knot hole, Woodpecker hole. Inspection Limitations: None	Reduce remaining crown to approx 1m above bifurcation point, retaining crown/ stem at approximately 5m height. Work recommendations for Client Work recommendations for third-party Timescale: 11-Jan-2025 (1 Year)
T036	White willow *(Salix alba)*	Tree	20	80	4.00	Over Mature	10+ Years	N:4 E:4 S:4 W:4			Previously pollarded at approximately 6m. Failed snapped out branching, hung up in crown.	Target # - footpath. Part# - Primary Branching	Failure Potential: Medium(2) Size of Part: 150-450mm(2) Target Rating: Intermittent use(2) Hazard Rating: 6 Hazard Category: Medium	Medium	Public Amenity Value: Moderate Bat Category / Feature: N/A Inspection Limitations: None	Repollard and repeat on a five year cycle Work recommendations for third-party Work recommendations for Client Timescale: 11-Jan-2025 (1 Year)
T037	Scots pine *(Pinus sylvestris)*	Tree	11	30	2.50	Semi Mature	50+ Years	N:2.5 E:2.5 S:2.5 W:2.5				Target # - footpath.	Failure Potential: Size of Part: Target Rating: Hazard Rating: Hazard Category:	N/A	Public Amenity Value: Low Bat Category / Feature: N/A Inspection Limitations: None	
T038	Larch *(Larix sp.)*	Tree	15	30	2.00	Semi Mature	50+ Years	N:2 E:2 S:2 W:2			Semi mature willow at base.	Target # - footpath.	Failure Potential: Size of Part: Target Rating: Hazard Rating: Hazard Category:	N/A	Public Amenity Value: Low Bat Category / Feature: N/A Inspection Limitations: None	

Tree Condition Survey

Tree ID Ref	Species	Full Structure	Height	DBH (cm)	Crown Radius	Life Stage	Life Expectancy	Spread	Photo	Photo	Survey Notes	Description of Target and Identified Tree Part	Risk Assessment	Hazard Category	Public Value, Bat Category and Feature, Inspection Limitations	Recommendations
T039	Silver birch *(Betula pendula)*	Tree	12	20	2.00	Semi Mature	50+ Years	N:2 E:2 S:2 W:2				Target # - footpath.	Failure Potential: Size of Part: Target Rating: Hazard Rating: Hazard Category:	N/A	Public Amenity Value: Low Bat Category / Feature: N/A Inspection Limitations: Water Course	
T040	Scots pine *(Pinus sylvestris)*	Tree	12	30	2.00	Semi Mature	50+ Years	N:2 E:2 S:2 W:2				Target # - footpath.	Failure Potential: Size of Part: Target Rating: Hazard Rating: Hazard Category:	N/A	Public Amenity Value: Low Bat Category / Feature: N/A Inspection Limitations: None	
T041	Silver birch *(Betula pendula)*	Tree	12	25	2.00	Semi Mature	30+ Years	N:2 E:2 S:2 W:2				Target # - footpath.	Failure Potential: Size of Part: Target Rating: Hazard Rating: Hazard Category:	N/A	Public Amenity Value: Low Bat Category / Feature: N/A Inspection Limitations: Access	
T042	Scots pine *(Pinus sylvestris)*	Tree	10	30	2.00	Semi Mature	50+ Years	N:2 E:2 S:2 W:2				Target # - footpath.	Failure Potential: Size of Part: Target Rating: Hazard Rating: Hazard Category:	N/A	Public Amenity Value: Low Bat Category / Feature: N/A Inspection Limitations: None	
T043	Scots pine *(Pinus sylvestris)*	Tree	10	30	2.00	Semi Mature	50+ Years	N:2 E:2 S:2 W:2				Target # - footpath.	Failure Potential: Size of Part: Target Rating: Hazard Rating: Hazard Category:	N/A	Public Amenity Value: Low Bat Category / Feature: N/A Inspection Limitations: Water Course	
T044	Silver birch *(Betula pendula)*	Tree 2 stems	12	20	1.00	Semi Mature	30+ Years	N:1 E:1 S:1 W:1	No Photo		Tight unions.	Target # - footpath.	Failure Potential: Size of Part: Target Rating: Hazard Rating: Hazard Category:	N/A	Public Amenity Value: Low Bat Category / Feature: N/A Inspection Limitations: None	

Tree Condition Survey

JBA Project Code: 2024s0035
Contract Name: Hatfield Moors Arboricultural Survey
Date of Inspection: 11/01/2024
Author: Stephen Tester - BSc (hons) Arb, MArborM, MICFor

Tree ID Ref	Species	Full Structure	Height	DBH (cm)	Crown Radius	Life Stage	Life Expectancy	Spread	Photo	Photo	Survey Notes	Description of Target and Identified Tree Part	Risk Assessment	Hazard Category	Public Value, Bat Category and Feature, Inspection Limitations	Recommendations
T045	Silver birch *(Betula pendula)*	Tree 3 stems	12	20	2.00	Semi Mature	30+ Years	N:2 E:2 S:2 W:2			Oak growing at base.	Target # - footpath.	Failure Potential: Size of Part: Target Rating: Hazard Rating: Hazard Category:	N/A	Public Amenity Value: Low Bat Category / Feature: N/A Inspection Limitations: None	
T144	Scots pine *(Pinus sylvestris)*	Tree	10	46	2.50	Semi Mature	40+ Years	N:2.5 E:2.5 S:2.5 W:2.5			Bifurcated. Old bark wound at 1m on West Side of stem.	Target # - footpath.	Failure Potential: Size of Part: Target Rating: Hazard Rating: Hazard Category:	N/A	Public Amenity Value: Low Bat Category / Feature: N/A Inspection Limitations: None	

D Tree Works Recommendations Schedule

Tree Work Recommendations

JBA Project Code: 2024s0035
Contract Name: Hatfield Moors Arboricultural Survey
Date of Inspection: 11/01/2024
Author: Stephen Tester - BSc (hons) Arb, MArborM, MICFor

Tree ID Ref.	Species	Measurements	Survey Notes	Recommendation	Work Timescale	Hazard Category	Photo
T006	Common ash *(Fraxinus excelsior)*	Height (m): 14 Crown Radius (m): 2 DBH (cm): 28 Stems: 2 Life Stage: Semi Mature Life Exp.: 40+ Years	Tight union on secondary stem, Both Stems subject of cracking and splitting and stems likely to fail. **Bat Potential - Subsistence crack**	Work recommendations for third-party Fell tree.	11-Jan-2025 (1 Year)	Medium	
T007	White willow *(Salix alba)*	Height (m): 16 Crown Radius (m): 4 DBH (cm): 80 Life Stage: Mature Life Exp.: 30+ Years	Previously pollards at approximately 8m from ground level. Branching has split out and failed on old pollard points. Old wound/ Cavity on North side of tree running from 1m to 2m from ground level. **Bat Potential - Tear out**	Repollard and repeat on a five-year cycle Work recommendations for third-party	11-Jul-2024 (6 Months)	Medium	
T008	White willow *(Salix alba)*	Height (m): 18 Crown Radius (m): 4 DBH (cm): 80 Life Stage: Mature Life Exp.: 30+ Years	Previously pollards at approximately 8m from ground level.	Repollard and repeat on a five-year cycle Work recommendations for third-party	11-Jul-2024 (6 Months)	Medium	
T009	White willow *(Salix alba)*	Height (m): 19 Crown Radius (m): 4 DBH (cm): 80 Life Stage: Mature Life Exp.: 20+ Years	Previously pollards at approximately 9m from ground level. Branching has split out and is hjng up, failed on old pollard points. Bifurcated at 4.5m from ground level.	Repollard and repeat on a five-year cycle. Work recommendations for Client Work recommendations for third-party	11-Jul-2024 (6 Months)	Medium	

Tree Work Recommendations

JBA Project Code: 2024s0035
Contract Name: Hatfield Moors Arboricultural Survey
Date of Inspection: 11/01/2024
Author: Stephen Tester - BSc (hons) Arb, MArborM, MICFor

Tree ID Ref.	Species	Measurements	Survey Notes	Recommendation	Work Timescale	Hazard Category	Photo
T010	White willow *(Salix alba)*	Height (m): 19 Crown Radius (m): 4 DBH (cm): 90 Life Stage: Mature Life Exp.: 30+ Years	Previously pollards at approximately 8m from ground level. Split and failed branching at Old pollard points. Multi-spired form.	Repollard and repeat on a five-year cycle Work recommendations for Client Work recommendations for third-party	11-Jul-2024 (6 Months)	Medium	
T011	White willow *(Salix alba)*	Height (m): 18 Crown Radius (m): 4 DBH (cm): 70 Life Stage: Mature Life Exp.: 30+ Years	Previously pollards at approximately 9m from ground level. Branching has split out and failed on old pollard points. Maise Gill on old cut stump on southeastern side, 0.5m from ground level. Multi-spired form.	Repollard and repeat on a five-year cycle Work recommendations for Client Work recommendations for third-party	11-Jul-2024 (6 Months)	Medium	
T012	White willow *(Salix alba)*	Height (m): 19 Crown Radius (m): 4 DBH (cm): 70 Life Stage: Mature Life Exp.: 30+ Years	Previously pollards at approximately 8m from ground level. Multi-spired form	Repollard and repeat on a five-year cycle. Work recommendations for Client	11-Jul-2024 (6 Months)	Medium	
T014	White willow *(Salix alba)*	Height (m): 15 Crown Radius (m): 4 DBH (cm): 70 Life Stage: Mature Life Exp.: 30+ Years	Previously pollards at approximately 6m from ground level. Multi-spired form	Repollard and repeat on a five-year cycle. Work recommendations for Client Work recommendations for third-party	11-Jan-2025 (1 Year)	Medium	

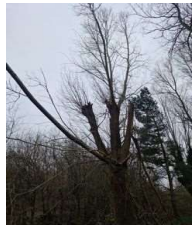
Tree Work Recommendations

JBA Project Code: 2024s0035
Contract Name: Hatfield Moors Arboricultural Survey
Date of Inspection: 11/01/2024
Author: Stephen Tester - BSc (hons) Arb, MArborM, MICFor

Tree ID Ref.	Species	Measurements	Survey Notes	Recommendation	Work Timescale	Hazard Category	Photo
T016	White willow *(Salix alba)*	Height (m): 17 Crown Radius (m): 4 DBH (cm): 70 Life Stage: Mature Life Exp.: 30+ Years	Previously pollards at approximately 7m from ground level. Multi-spired form. Woodpecker hole on western stem.	Repollard and repeat on a five-year cycle. Work recommendations for Client Work recommendations for third-party	11-Jul-2024 (6 Months)	Medium	
T017	White willow *(Salix alba)*	Height (m): 16 Crown Radius (m): 4 DBH (cm): 70 Life Stage: Mature Life Exp.: 20+ Years	Previously pollards at approximately 7m from ground level. Further branching split outs and hung up in crown.	Reduce to approximately 5-6m in height to retain as a habitat pole, or fell. Work recommendations for Client Work recommendations for third-party	11-Jul-2024 (6 Months)	Medium	
T019	White willow *(Salix alba)*	Height (m): 13 Crown Radius (m): 4 DBH (cm): 70 Life Stage: Mature Life Exp.: 30+ Years	Previously pollards at approximately 7m from ground level. Multiple branching split out and hung up in crowns of adjacent trees over footpath of lakes.	Fell or reduce and retain as a habitat pole of approximately 4m in height. Work recommendations for third-party Work recommendations for Client	11-Apr-2024 (3 Months)	Medium	
T020	White willow *(Salix alba)*	Height (m): 16 Crown Radius (m): 4 DBH (cm): 70 Life Stage: Mature Life Exp.: 30+ Years	Previously pollards at approximately 7m from ground level. Branching split out and hung up in crown and over footpath for lakes.	Fell or reduce and retain as a habitat pole of approximately 4m in height. Work recommendations for Client Work recommendations for third-party	11-Jul-2024 (6 Months)	Medium	

Tree Work Recommendations

JBA Project Code: 2024s0035
Contract Name: Hatfield Moors Arboricultural Survey
Date of Inspection: 11/01/2024
Author: Stephen Tester - BSc (hons) Arb, MArborM, MICFor

Tree ID Ref.	Species	Measurements	Survey Notes	Recommendation	Work Timescale	Hazard Category	Photo
T021	White willow *(Salix alba)*	Height (m): 19 Crown Radius (m): 4 DBH (cm): 70 Life Stage: Mature Life Exp.: 30+ Years	Previously pollards at approximately 7m from ground level. Crown condition indicates limited vigour. Ivy on stem hindering inspection.	Repollard and repeat on a five year cycle Work recommendations for third-party	11-Jan-2025 (1 Year)	Medium	
T022	White willow *(Salix alba)*	Height (m): 25 Crown Radius (m): 5 DBH (cm): 100 Life Stage: Mature Life Exp.: 30+ Years	1x branch hung up over footpath for lakes. **Bat potential - Hazard beam, knot hole, Woodpecker hole**	Localise pruning of failed branching over footpath Work recommendations for third-party	**Urgent**	Medium	
T025	White willow *(Salix alba)*	Height (m): 16 Crown Radius (m): 4 DBH (cm): 70 Life Stage: Mature Life Exp.: 10+ Years	Previously pollards at approximately 7m. Recent failed and snapped out branching hung up in crown of T028. Limited vigour throughout crown. **Bat Potential - Knot holes**	Fell or reduce and retain as a habitat pole of approximately 4m in height. Work recommendations for Client	11-Jul-2024 (6 Months)	Medium	
T026	White willow *(Salix alba)*	Height (m): 25 Crown Radius (m): 5 DBH (cm): 100 Life Stage: Mature Life Exp.: 30+ Years	Branching split out and hung up, but over pond side (west)	Remove faulted limb. Work recommendations for third-party	11-Jul-2024 (6 Months)	Medium	

Tree Work Recommendations

JBA Project Code: 2024s0035
Contract Name: Hatfield Moors Arboricultural Survey
Date of Inspection: 11/01/2024
Author: Stephen Tester - BSc (hons) Arb, MArborM, MICFor

Tree ID Ref.	Species	Measurements	Survey Notes	Recommendation	Work Timescale	Hazard Category	Photo
T028	White willow *(Salix alba)*	Height (m): 18 Crown Radius (m): 4 DBH (cm): 80 Life Stage: Mature Life Exp.: 30+ Years	Previously pollards at approximately 7m. Failed snapped out branching at decayed pollard points, including recent bough failures and bough split/ fracture. Limited vigour throughout crown. **Bat potential - Woodpecker hole, Shearing Split**	Fell or reduce and retain as a habitat pole of approximately 4m in height. Work recommendations for Client Work recommendations for third-party	11-Jul-2024 (6 Months)	Medium	
T029	White willow *(Salix alba)*	Height (m): 16 Crown Radius (m): 4 DBH (cm): 70 Life Stage: Mature Life Exp.: 10+ Years	Previously pollards at approximately 7m. Failed snapped out branching at Old poĺlard points. Laetiporus on south side of stem at 1.5m from ground level. **Bat potential - Woodpecker hole, lifting bark, knot hole.**	Fell or reduce and retain as a habitat pole of approximately 4m in height. Work recommendations for Client	11-Jul-2024 (6 Months)	Medium	
T030	White willow *(Salix alba)*	Height (m): 0 Crown Radius (m): 4 DBH (cm): 80 Life Stage: Over Mature	Tree has failed at base and fallen East across ditch.	Either leave as feature or could be pulled out of the ditch to side. Work recommendations for Client Work recommendations for third-party	No Timeframe proposed		
T031	White willow *(Salix alba)*	Height (m): 19 Crown Radius (m): 4 DBH (cm): 80 Life Stage: Over Mature Life Exp.: 10+ Years	Previously pollarded at approximately 5m. Failed snapped out branching. Limited vigour throughout crown. Decay on main stem, with flaking bark. **Bat potential - Woodpecker hole, lifting bark, knot hole**	Reduce to approximately 4m in height as habitat pole, or fell. Work recommendations for Client	11-Jul-2024 (6 Months)	Medium	

Tree Work Recommendations

JBA Project Code: 2024s0035
Contract Name: Hatfield Moors Arboricultural Survey
Date of Inspection: 11/01/2024
Author: Stephen Tester - BSc (hons) Arb, MArborM, MICFor

Tree ID Ref.	Species	Measurements	Survey Notes	Recommendation	Work Timescale	Hazard Category	Photo
T033	White willow *(Salix alba)*	Height (m): 18 Crown Radius (m): 4 DBH (cm): 80 Life Stage: Over Mature Life Exp.: 10+ Years	Previously pollarded at approximately 6m. Failed snapped out branching, hung up in the crown. Habitat and woodpecker holes are evident. Maise Gill (Daedalea ssp.) on stem. **Bat potential - Tear out**	Fell or reduce and retain as a habitat pole of approximately 3m in height. Work recommendations for Client	11-Jul-2024 (6 Months)	Medium	
T034	White willow *(Salix alba)*	Height (m): 20 Crown Radius (m): 4 DBH (cm): 80 Life Stage: Over Mature Life Exp.: 10+ Years	Previously pollarded at approximately 6m. Old bird nest at pollard point on East Side of crown.	Repollard and repeat on a five year cycle. Work recommendations for Client Work recommendations for third-party	11-Jul-2024 (6 Months)	Medium	
T035	White willow *(Salix alba)*	Height (m): 16 Crown Radius (m): 4 DBH (cm): 80 Life Stage: Over Mature Life Exp.: 10+ Years	Previously pollarded at approximately 6m. Failed snapped out branching, hung up in crown. **Bat potential - Knot hole, Woodpecker hole.**	Reduce remaining crown to approx 1m above bifurcation point, retaining crown/ stem at approximately 5m height. Work recommendations for Client Work recommendations for third-party	11-Jan-2025 (1 Year)	Medium	
T036	White willow *(Salix alba)*	Height (m): 20 Crown Radius (m): 4 DBH (cm): 80 Life Stage: Over Mature Life Exp.: 10+ Years	Previously pollarded at approximately 6m. Failed snapped out branching, hung up in crown.	Repollard and repeat on a five year cycle Work recommendations for third-party Work recommendations for Client	11-Jan-2025 (1 Year)	Medium	

E Tree Id Plans

2024s0035 Hatfield Moors - Tree Survey 2024

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F Tree Hazard Evaluation

F.1.1 Tree Survey and Assessment Glossary

The study of tree hazard evaluation and assessment is not an exact science, and there is still much advancement required with, research and constantly developing technology leading this science. Most limitations of tree hazard evaluation arise from uncertainties with trees and the loads the trees are subjected to.

There are three levels of tree evaluation and assessment defined in the International Society of Arboriculture's (ISA) Best Management Practices for Tree Risk Assessment and ANSI A300 Tree Risk Assessment Standard.

For the purposes of this report a Level 1 Visual Assessment was undertaken and in this instance the use of Matheny and Clark 1994 Tree Risk Assessment methodology was undertaken to provide quantifiable results of the perceived tree risks.

F.1.2 Visual Assessment

A Level 1 Limited Visual Assessment, also known as a Hazard Survey or Negative Tree Survey, is a type of visual evaluation that focuses on individual trees or groups of trees located near specific targets. The purpose of these assessments is to identify any noticeable defects or tree conditions (such as dead trees) that have been agreed upon with the client and tree owner/manager.

Typically, a Level 1 Limited Visual Assessment is performed from a predetermined perspective (such as from a sidewalk, street, parking lot, woodland edge, etc.) and normally on one side of the tree. The assessment is designed to identify any tree features, defects, or specific conditions that could pose a hazard and result in a likelihood of failure that could impact the specified target(s).

These assessments are usually carried out to evaluate large populations of trees and identify those with the highest likelihood of failure ratings, or trees that require a more in-depth assessment.

However, it's important to note that there are some limitations to Level 1 Limited Visual Assessments. Since the inspection is done from a specific viewpoint, not all tree features and observations may be visible or apparent at different times of the year. Also, climbers, undergrowth, basal growth, etc. will not be removed to facilitate the inspection. As a result, the inspection may not be adequate enough to make a risk mitigation recommendation, and residual risk designations for trees are not included.

F.1.3 Brief Explanation of Matheny and Clark's (1994) Tree Risk Assessment scoring

The risk assessment fields were inputted into where a notable defect was observed, if a notable defect was not noted then the fields were left blank.

The three fields recorded for a notable defect were:

- Failure Potential (Severe (4), High (3), Medium (2), Low (1))
- Size of Part, (Greater than 900mm (4), 450-900mm (30< 150-450mm (2), <150mm (1)).
- Target Rating (Constant use (4), Frequent use (3), Intermittent use (2), Occasional use (1)).

From this, the Hazard Rating field is automatically calculated by adding the three numbers together to give a value between 3-12, and the corresponding Hazard Category is prescribed.

e.g. Failure Potential + Size of Part + Target Rating = Hazard Rating

The Hazard Category can be prescribed as:

- 3-5 Low
- 5-7 Medium
- 8-10 High
- 11-12 Severe

After assessing the tree, the assessor may determine if remedial action is necessary to address any risks posed by the tree or its parts or recommend alternative actions to reduce the risk presented.

References

Arboricultural Association (2016) Guidance Note 7: Tree Surveys – A Guide to Good Practice

British Standards Institution (2010) British Standards (BS) 3998:2010 Tree Work – Recommendations.

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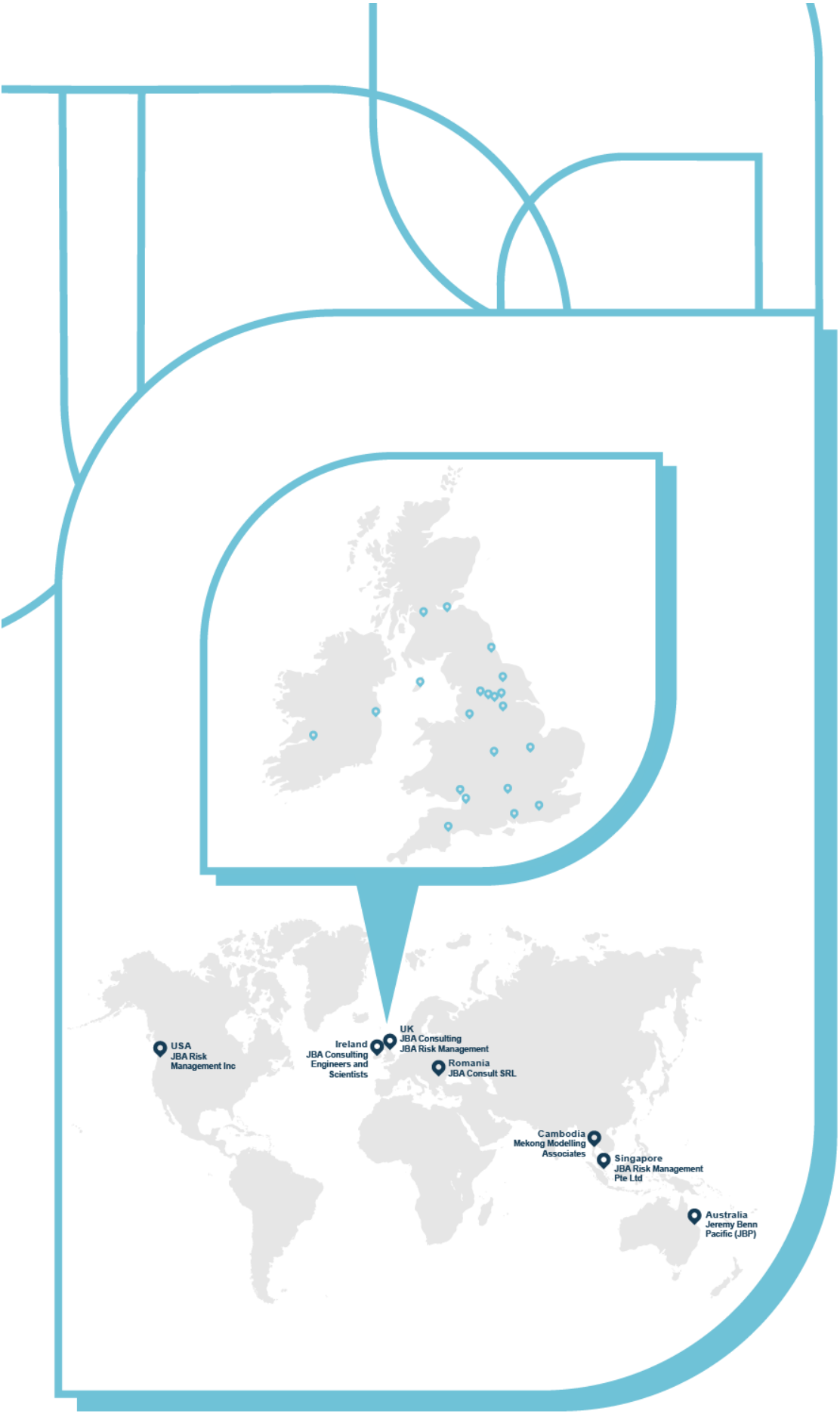

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