



Aran Kimberlee
BSc (Hons) Arboriculture
M Arbor A, PTI.
Little Kerries Bungalow
Kerries Road
South Brent
Devon
TQ10 9DD
Tel: 01364 72804
Mobile: 07594680168
Email: aran@dartforesttrees.co.uk
www.dartforesttrees.co.uk

Tree Condition Assessment Prepared for

Harberton Parish Council Parks and Green Space

Prepared by
A.C. Kimberlee BSc (Hons) Arboriculture, M Arbor A, PTI.

Date: 15th June 2023

Version: 1



Table of Contents

No.	Section	Page
1	Instruction and Purpose of Report	4
2	Report Methodology & Limitations	4
3	Site Details	5
4	Condition of Trees and Groups of Trees on Individual Sites	5-10
5	Tree Risk Assessment	11-12
6	Recommendations	13
7	References / Bibliography	14

Appendices

Appendix 1: Individual Tree Risk Survey

Appendix 2: Site Map showing location of trees

Appendix 3: Stages of Ash Dieback Disease

Client:	Harberton Parish Council – Cat Radford	Ref:	AK/522/150623
Location:	<ul style="list-style-type: none"> • Harberton Playing Fields, Harberton, Totnes, Devon • Harbertonford Playpark, Harbertonford, Totnes, Devon. 		
Date of site Inspections:	15 th June 2023		
Survey Inspector(s):	Aran Kimberlee BSc (Hons) Arboriculture M Arbor A, PTI.		
Report Author:	Aran Kimberlee BSc (Hons) Arboriculture M Arbor A, PTI.		
Signature:		Date:	15 th June 2023

All rights in this report are reserved. No part of it may be reproduced or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording or otherwise, or stored in any retrieval system of any nature, without our written permission. Its content and format are for the exclusive use of the client. It may not be sold, lent, hired out or divulged to any third party not directly involved in this site without the written consent of the author.

The statements made in this report do not take account of extreme climate, vandalism or accident, whether physical, chemical or fire. The author cannot therefore accept any liability in these factors, nor where prescribed work is carried out in an incorrect and/or unprofessional manner in accordance with current good practice. The authority of this report ceases at any stated time limit within it, or if none is stated after two years from the date of the survey or when site conditions change, or pruning or other works unspecified in the report are carried out to, or affecting, the subject tree(s), whichever is sooner.

1.0 Instruction and Purpose of Report

- 1.1 I have been verbally instructed by Cat Radford to carry out a tree safety inspection of the significant trees growing within the boundaries of Harberton Playing fields and playpark and Harbertonford Playpark, near Totnes in Devon.
- 1.2 The purpose of my inspection was to assess the structural integrity of the trees on-site and the level of risk the trees might pose to persons and property and to give appropriate recommendations, if any, for management of the trees. If significant defects are observed in relation to targets then the risk of harm will be assessed using the Quantified Tree Risk Assessment (QTRA) system. The method of which is detailed below in section 4.0 of this report.
- 1.3 In addition, give appropriate recommendations, if any, for management of the trees in report format.

2.0 Report Methodology & Limitations

- 2.1 I carried out the survey on the 15th June 2023. The weather was fine and the visibility good.
- 2.2 The inspection process consisted of a general ground based visual assessment only. Any cavities or areas of decay that are accessible from ground level may have been probed with a thin metal instrument to assess the significance and extent of any decay. A nylon sounding hammer may also have been used to help detect the presence of any internal decay in the main trunk and/ or larger stems. Binoculars may have been used in order to assist inspection of the upper canopy. Where a further more detailed inspection is required this will be indicated within the recommendations.
- 2.3 The assessment consisted of an above ground inspection only and soil type has not been ascertained on site. Therefore, this report makes no reference to the possible effects of tree roots and shrinkable soils, and any possible effects on building foundations or underground services.
- 2.4 Unless otherwise specified in the recommendations, this report is valid for 12 months from the date of site inspection. The condition of trees can change due to the effects of pests and disease or following severe weather conditions or other abiotic factors. The report is valid only for typical weather conditions. Healthy trees or parts of healthy trees may fail in unusually high or unpredictable winds or violent storms and, as the consequences of such weather phenomena are unforeseeable, the author of this report cannot be held liable for any such failures.

- 2.5 The conclusions of this report will remain valid for 12 months from the date of the inspection, but any alteration or deletion from this report will invalidate it as a whole.
- 2.6 The trees on site have not been tagged. A map showing the location of the trees has been included in appendix 2 of this report.
- 2.7 No estimated pedestrian or vehicular usage for any of the sites requiring tree inspection has been provided. This information is used to determine the appropriate target range when assessing the risk of failure of trees. Therefore, an estimated pedestrian and vehicular usage has been calculated whilst carrying out the survey. Should the client feel the site usage for pedestrians and vehicles or property values described at the detailed sites are inaccurate, then Dartforest Ltd. must be made aware of this matter as soon as possible in order for the report to be amended.

3.0 Site Details

- 3.1 The parks, recreational areas and green spaces detailed in section 1.1 of this report are owned/ managed by Harberton Parish Council. The sites contain a varied mix of species of tree, age ranges and tree sizes. The majority of sites contain early mature planted specimens with larger mature boundary ash, oak and sycamore trees.
- 3.2 Soil type on-site has not been ascertained. The site appeared to be moderately sheltered to the prevailing south westerly winds.
- 3.3 No checks have been carried out to ascertain any legal protection such as Tree Preservation Orders or Conservation Areas that might cover the site.

4.0 Condition of trees and groups of trees

4.1 Harberton Playing Fields

- 4.1.1 Harberton Playing field is a large green space which is located in the centre of the village of Harberton, near Totnes in Devon. The site includes the Village Hall, a play park and a car park with planted trees, hedges and shrubs. Within the playing field are a number of planted wooded areas and open grown trees. The western boundary has several large mature oak and ash hedgerow specimens with a wooded area beyond.
- 4.1.2 Compartment 1 is an area of mixed broadleaf trees growing around the parking area main access driveway and children's playpark. There are approximately 2 semi-mature ash trees growing on the bank adjacent to the lane into Harberton village. There are also a number of ash trees in the wooded areas which screen the playing

field from the children's playpark which appeared to have only very minor signs of ADB in the crowns of the trees. The ash trees appear to be unchanged and are considered to be a low risk at present.



Photograph 1 and 2: Ash tree with ADB in the park in 2022 (left) and 2023 (right).

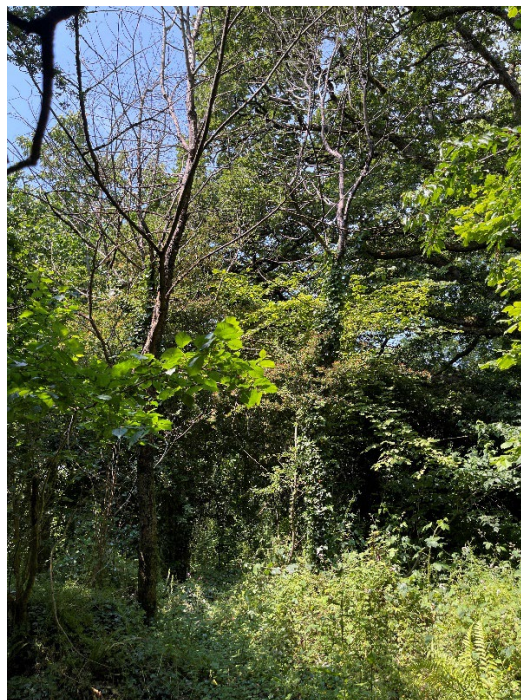
- 4.1.3 Since the previous survey the ash trees at the playing fields are showing no signs of being in a worse condition than when viewed in 2022 and appeared to have improved for some. The ash tree close to the main entrance to the car park has been felled, although I do not believe that this tree was a risk and had all the signs of recovery and good vitality lower in the crown of the tree.
- 4.1.4 Within the central belt of trees is a singular oak tree with a swing attached to the lower branches. The tree has an open grown crown with a good shape and is approximately 15 metres in height. The main trunk bifurcates at approximately 1.5 metres with an included union which appears to be stable at present. Included unions or bark inclusions can form where stems or branches growing in close contact to one another can form inherently weak unions to a main trunk or subsidiary stems. This is where the union of the two stems or branches do not unite with one another and the presence of the stem bark ridge rolls inward and creates bark to bark contact. As the two members grow, load stress (usually from wind and weight) creates pressure between the two stems and the tree produces adaptive growth to compensate for the weak union. This can be observed as an increased

formation of wood on either side of the union and is commonly known as a compression fork. The increasing stimulus of growth around the union, the presence of 'pursed lips', cracking and / or watermarking on the main trunk can indicate that a stem or branch is poorly attached and could be represent a high risk of failure. At present the union appears to be stable but should be regularly monitored for any change in condition.



Photograph 3: Oak in park with stable included union to monitor.

- 4.2.1 Compartment 2 comprises of a banked wooded area of young ash, cherry and hazel trees growing next to the original field boundary to the south-west. Along the original hedgerow and within the wooded area there is a large mature oak and ash tree. A number of the younger ash within the wooded group appear to be in an improved condition than when they were viewed in 2022 and are considered to be a low risk due to the target area.
- 4.2.2 Within the wooded area there are three dead elms trees and a partially fallen blackthorn close to the footpath along the south-western boundary. These trees are small and are currently a low risk (Broadly Acceptable). I have recommended to remove the trees if funds allow.



Photographs 4 and 5: Blackthorn (left) close to footpath and three dead elm trees (right).

- 4.3 Compartment 3 comprises of an area of young, planted specimen trees and the northern hedgerow boundary of the playing field. I did not observe any significant defects with the trees in this compartment.



Photograph 6: Large mature ash in good condition in Compartment 2.

Harbertonford Playpark

- 4.4.1 Harbertonford Playpark is a small park located in the village of Harbertonford near Totnes, Devon. The Park is located and accessed from Riverdale and the park can also be accessed from the grounds of Harbertonford Church of England Primary School. The playpark has climbing apparatus and a small football pitch with a number of small planted specimens, a willow arbor and groups of historic coppice boundary ash and sycamore trees.
- 4.4.2 Compartment 1 consists of planted specimen trees and a willow arbor growing close to the playpark apparatus. I did not observe any significant defects at the time of inspection. The hedge growing adjacent to the footpath from the school to the park is overgrown with low hanging branches over the footpath. There is a very small dead alder tree next to the main entrance of the park which would be best felled.



Photograph 7: Dead alder tree next to the main entrance of the park.

- 4.4.3 Compartment 2 includes several larger boundary trees which appear to be historically coppiced growing on the southern and western boundaries. Growing on the southern boundary is a historically coppiced ash tagged 0242 which has multiple stems arising from ground level. The easternmost stem has a significant bark inclusion where it is attached to another stem. During a previous survey in 2020, I observed movement between the two stems at the point of the included stems, I recommended for the ash trees in this group to be reduced. The works have now been carried out and therefore, no further works are required at present. The trees will need to be continually monitored for ADB. There is no change in condition of these trees since the previous survey in 2022.
- 4.4.4 G0243 is a group of sycamore and ash trees growing on the western boundary of the park and overhang into Harbertonford Primary School. The ash within the group were in very poor condition in 2020 and it was recommended for both ash and sycamore to be pollarded along this boundary. These works have now been completed and the sycamore has responded well to this work with new regrowth. The ash regrowth has started to become diseased from ADB but is still alive and this tree should be monitored. No further works are required at present.
- 4.5 Ash Dieback Disease (*Hymenoscyphus fraxineus*) or ADB is a serious fungal pathogen that attacks ash trees and was first confirmed in Britain in 2012. The disease causes significant leaf loss, stem and branch lesions, crown dieback and is usually fatal. It is reported that older mature trees can sometimes live with the disease but often become weakened or stressed and are therefore more susceptible to secondary fungal infections from honey fungus (*Armillaria* spp.). Once a tree is infected there is no cure or treatment and the crown can die very quickly, modifying the structural condition of the wood. Therefore, dead standing trees in high/ moderate target areas need to be assessed and if necessary action taken promptly. I advise all sites and areas with ash trees present to be continually monitored and inspected by a competent person on an annual basis, particularly during the summer months.
- 4.6 The risk associated with unpredictable limb loss due to factors such as summer branch drop cannot be quantified. Should these trees lose additional, relatively healthy and structurally sound limbs within the period covered by this report, I advise that these trees would then require re-assessment as soon as possible after the event.

5.0 Tree Risk Assessment

- 5.1 The Quantified Tree Risk Assessment (QTRA) system applies established and accepted risk management principles to tree safety management. Firstly, the targets (persons and property) upon which trees could fail are assessed and quantified, thus enabling tree managers to determine whether or not and to what degree of rigour a survey or inspection of the trees is required. Where necessary, the tree or branch is then considered in terms of both impact potential (size) and the probability of failure. Values derived from the assessment of these three components (target, impact potential and probability of failure) are combined to calculate the probability of significant harm occurring.
- 5.2 The system moves the management of tree safety away from labelling trees as either "safe" or "unsafe", thereby requiring definitive statements of tree safety from either tree surveyors or tree managers. Instead, QTRA quantifies the risk of significant harm from tree failure in a way which enables tree managers to balance safety with tree value and operate to a predetermined limit of reasonable or acceptable risk.
- 5.3 The QTRA system also require an allocated target range; mapping of land use by road classification; estimated levels of pedestrian occupation; and estimated structure values. Whilst surveying I only saw a brief glimpse of site usage on the site and therefore, I advise that my target appraisal is considered against the knowledge of site managers or users.
- 5.4 The target ranges can vary from each site. The ones used during the risk assessment are as follows:
- Target 1: Estimated pedestrian usage 720-73 per hour; property repair or replacement cost £2 000 000 – £200 000 and/or 47000 – 4800 vehicles per day at 30 mph.
 - Target 2: Estimated pedestrian usage 72-8 per hour; property repair or replacement cost £200 000 – £20000 and/or 4700 – 480 vehicles per day at 30 mph.
 - Target 3: Estimated pedestrian usage 7-2 per hour; property repair or replacement cost £20 000 – £2000 and/or 470 – 48 vehicles per day at 30 mph.
 - Target 4: Estimated pedestrian usage 1-per hour – 3 per day; property repair or replacement cost £2000 – £200 and/or 47 – 6 vehicles per day at 30 mph.
- 5.5 Should the client consider this estimate to be inaccurate they should report back to Dartforest Limited so that the risk assessment can be refined.

5.6 QTRA Advisory Thresholds

Thresholds	Description	Action
1/1 to 1/1000	Unacceptable Risks will not ordinarily be tolerated	<ul style="list-style-type: none"> Control the risk
1/1000 to 1/10 000	Unacceptable (Where imposed on others) Risks will not ordinarily be tolerated	<ul style="list-style-type: none"> Control the risk Review the risk
	Tolerable (by agreement) Risks may be tolerated if those exposed to the risk accept it, or the tree has exceptional value	<ul style="list-style-type: none"> Control the risk unless there is broad stakeholder agreement to tolerate it, or the tree has exceptional value Review the risk
1/ 10 000 to 1 000 000	Tolerable (Where imposed on others) Risks are tolerable if as low as reasonably possible (ALARP)	<ul style="list-style-type: none"> Assess costs and benefits of risk control Control the risk only where a significant benefit might be achieved at reasonable cost Review the risk
1/ 1 000 000 or less	Broadly Acceptable Risk is already as low as reasonably possible (ALARP)	<ul style="list-style-type: none"> No action currently required Review the risk

Source: Quantified Tree Risk Assessment User Manual V5.1.3

5.7 The risk of harm from both sites has been calculated at 1/ 1 000 000 which is within the Broadly Acceptable threshold (Risk is already ALARP). The recommended tree works should be considered in terms of both risk management and long-term management of the tree.

6.0 Recommendations

Site	Tree No.	Species	Observations	Recommendations	Work Priority
Harberton Playing Fields	C1	Mixed Broadleaf-	<ul style="list-style-type: none"> Screening trees on bank in car park. Mix of ornamental planted specimens. Group of screening trees and scrub between play Park and field. Three Ash trees growing in play park area have varying degrees of ADB. Although considered low risk at present. Oak with included union to monitor. 	<ul style="list-style-type: none"> Monitor Ash trees annually during summer months for Ash Dieback Disease. Monitor included union on oak tree. 	Low – Works to be carried out within 12 months
Harberton Playing Fields	C2	Mixed Broadleaf	<ul style="list-style-type: none"> Trees growing on boundary bank and wooded planted area. Planted young specimens of cherry, hazel and ash. Large mature boundary oak and two ash. Ash trees are in good physiological condition. Group of 3 x dead elms and fallen blackthorn to fell next to footpath. 	<ul style="list-style-type: none"> Fell 3 x dead elms and fallen blackthorn stem along woodland footpath. 	Low – Works to be carried out within 12 months
Harberton Playpark	C1	Mixed Broadleaf	<ul style="list-style-type: none"> Ornamental and self-seeded specimen trees around play park equipment. Small dead alder tree by entrance 	<ul style="list-style-type: none"> Fell small dead alder tree next to entrance. 	Low – Works to be carried out within 12 months

6.1 In the event of any new defects, concerns or the occurrence of seasonal fungal fruiting bodies on any of the trees with high targets, Dartforest Limited should be contacted as soon as possible in order to re-assess the tree/s and update this report.

6.2 All tree works should be undertaken to BS3998:2010 Recommendations for Tree Works. It is strongly recommended that any tree surgery works are undertaken by highly skilled and qualified contractors.

End AK/522/150623

7.0 Bibliography

British Standards Institution (2010) British Standard Recommendations for Tree Work -BS 3998:2010

Fay N, Dowson D, Helliwell R (2005) Tree Surveys: A guide to good practice *Guidance Note No. 7 Arboricultural Association*

Lonsdale D. (1999) Principles of Tree Hazard Assessment and Management TSO

Matheny N. P. and Clark J. R. 1994 A photographic guide to the evaluation of hazard trees in urban areas, Second Ed. *International Society of Arboriculture*

Mattheck C. and Breloer H. 1994 The Body Language of Trees: A handbook for failure analysis TSO

Matteck C and Bethge K 1998 The Structural Optimization of Trees *Springer-Verlag, Naturwissenschaften*


Mitchell A (1974) Collins field Guide Trees of Britain and Northern Europe *Harper Collins Publishers*

QTRA Tree Safety Management (2014) Quantified Tree Risk Assessment User Manual Version 5

The Tree Council (2019) Ash Dieback Disease: A Guide for Tree Owners

Appendix 1: Individual Tree Risk Survey

APPENDIX 2: INDIVIDUAL TREE RISK SURVEY

Site: Harberton Playing Field, Harberton, Totnes, Devon.						Surveyor: Aran Kimberlee						
Client: Cat Radford						Assessment Date: 15 th June 2023						
Brief: VTA Assessment of significant trees growing within the boundaries of the site listed above						Viewing Conditions: Good						
						Job Reference: AK/522/150623						
Tree no.	Species	Age Range	Height (m)	Stem dia. (mm)	Vitality	Targets and Comments	Management	Target Range	Size Range	Prob Range	Risk Index	Inspection Frequency
C1	Mixed Broadleaf-	Y	Up to 12	Up to 450	G	<ul style="list-style-type: none">Screening trees on bank in car park.Mix of ornamental planted specimens.Group of screening trees and scrub between play Park and field.Three Ash trees growing in play park area have varying degrees of ADB. Although considered low risk at present.Oak with included union to monitor.	<ul style="list-style-type: none">Monitor Ash trees annually during summer months for Ash Dieback Disease.Monitor included union on oak tree.	2	2	6	<1M	1
C2	Mixed Broadleaf	M-EM	Up to 20	Up to 1050	G	<ul style="list-style-type: none">Trees growing on boundary bank and wooded planted area.Planted young specimens of cherry, hazel and ash.Large mature boundary oak and two ash. Ash trees are in good physiological condition.Group of 3 x dead elms and fallen blackthorn to fell next to footpath.	<ul style="list-style-type: none">Fell 3 x dead elms and fallen blackthorn stem along woodland footpath.	3	1	5	<1M	1

KEY-

HEADINGS & ABBREVIATIONS

REF: TREE REFERENCE NO.

AGE RANGE: Y= YOUNG, SM= SEMI MATURE, EM= EARLY MATURE, M = MATURE, PM = POST MATURE

STEM DIA: STEM DIAMETER MEASURED AT A HEIGHT OF APPROXIMATELY 1.3 METRES

VITALITY: A MEASURE OF PHYSIOLOGICAL CONDITION.

G= GOOD, M= MODERATE, P= POOR, MD = MORIBUND, D= DEAD,

QTRA RISK RATING: RISK OF SIGNIFICANT HARM , 1,000 = RISK INDEX (E.G. RISK INDEX 20 = RISK OF SIGNIFICANT HARM 1 IN 20,000)


INSPECTION FREQUENCY: PERIOD (IN YEARS) TO NEXT INSPECTION BY COMPETENT PERSON

AK/522/150623

Dartforest Tree Works is the trading name of Dartforest Ltd
Registered Office: 2 Bridge Farm Offices, Harberton, Totnes, Devon, TQ9 7PP. Registered Company Number: 9378748

Appendix 1: Individual Tree Risk Survey

APPENDIX 2: INDIVIDUAL TREE RISK SURVEY

Site: Harberton Playing Field, Harberton, Totnes, Devon.							Surveyor: Aran Kimberlee						
Client: Cat Radford							Assessment Date: 15 th June 2023						
Brief: VTA Assessment of significant trees growing within the boundaries of the site listed above							Viewing Conditions: Good						
							Job Reference: AK/522/150623						
Tree no.	Species	Age Range	Height (m)	Stem dia. (mm)	Vitality	Targets and Comments	Management	Target Range	Size Range	Prob Range	Risk Index	Inspection Frequency	
C3	Copper Beech, Oak, Cherry, Hazel	EM	Up to 15	Up to 560	G	• Small copse with fire pit. Boundary trees.	• No works required.	3	1	6	<1M	1	

KEY-

HEADINGS & ABBREVIATIONS

REF: TREE REFERENCE NO.

AGE RANGE: Y= YOUNG, SM= SEMI MATURE, EM= EARLY MATURE, M = MATURE, PM = POST MATURE

STEM DIA: STEM DIAMETER MEASURED AT A HEIGHT OF APPROXIMATELY 1.3 METRES

VITALITY: A MEASURE OF PHYSIOLOGICAL CONDITION.


G= GOOD, M= MODERATE, P= POOR, MD = MORIBUND, D= DEAD,

QTRA RISK RATING: RISK OF SIGNIFICANT HARM , 1,000 = RISK INDEX (E.G. RISK INDEX 20 = RISK OF SIGNIFICANT HARM 1 IN 20,000)

INSPECTION FREQUENCY: PERIOD (IN YEARS) TO NEXT INSPECTION BY COMPETENT PERSON

Appendix 1: Individual Tree Risk Survey

APPENDIX 2: INDIVIDUAL TREE RISK SURVEY

Site: Harbertonford Play Park, Harbertonford, Totnes, Devon.							Surveyor: Aran Kimberlee						
Client: Cat Radford							Assessment Date: 15 th June 2023						
Brief: VTA Assessment of significant trees growing within the boundaries of the site listed above							Viewing Conditions: Good						
							Job Reference: AK/522/150623						
Tree no.	Species	Age Range	Height (m)	Stem dia. (mm)	Vitality	Targets and Comments	Management	Target Range	Size Range	Prob Range	Risk Index	Inspection Frequency	
C1	Mixed Broadleaf	EM	Up to 10	Up to 250	G	<ul style="list-style-type: none">Ornamental and self-seeded specimen trees around play park equipment.Small dead alder tree by entrance	<ul style="list-style-type: none">Fell small dead alder tree next to entrance.	2	2	6	<1M	1	
C2	Mixed broadleaf-Sycamore, Ash, Hazel, Willow	M	Up to 24	Up to 450	M	<ul style="list-style-type: none">Area of historic coppiced ash and sycamore growing on southern and western boundary. Ash recently reduced.No change in condition of trees	<ul style="list-style-type: none">No works required.	3	2	6	<1M	1	
G0243	Ash and Sycamore	SM	Up to 18	Up to 460	M	<ul style="list-style-type: none">Group of two twin stemmed ash and one sycamore. Recently pollardedAsh trees showing signs of ADB on regrowth.	<ul style="list-style-type: none">No works required	3	1	6	<1M	1	

KEY-

HEADINGS & ABBREVIATIONS

REF: TREE REFERENCE NO.

AGE RANGE: Y= YOUNG, SM= SEMI MATURE, EM= EARLY MATURE, M = MATURE, PM = POST MATURE

STEM DIA: STEM DIAMETER MEASURED AT A HEIGHT OF APPROXIMATELY 1.3 METRES

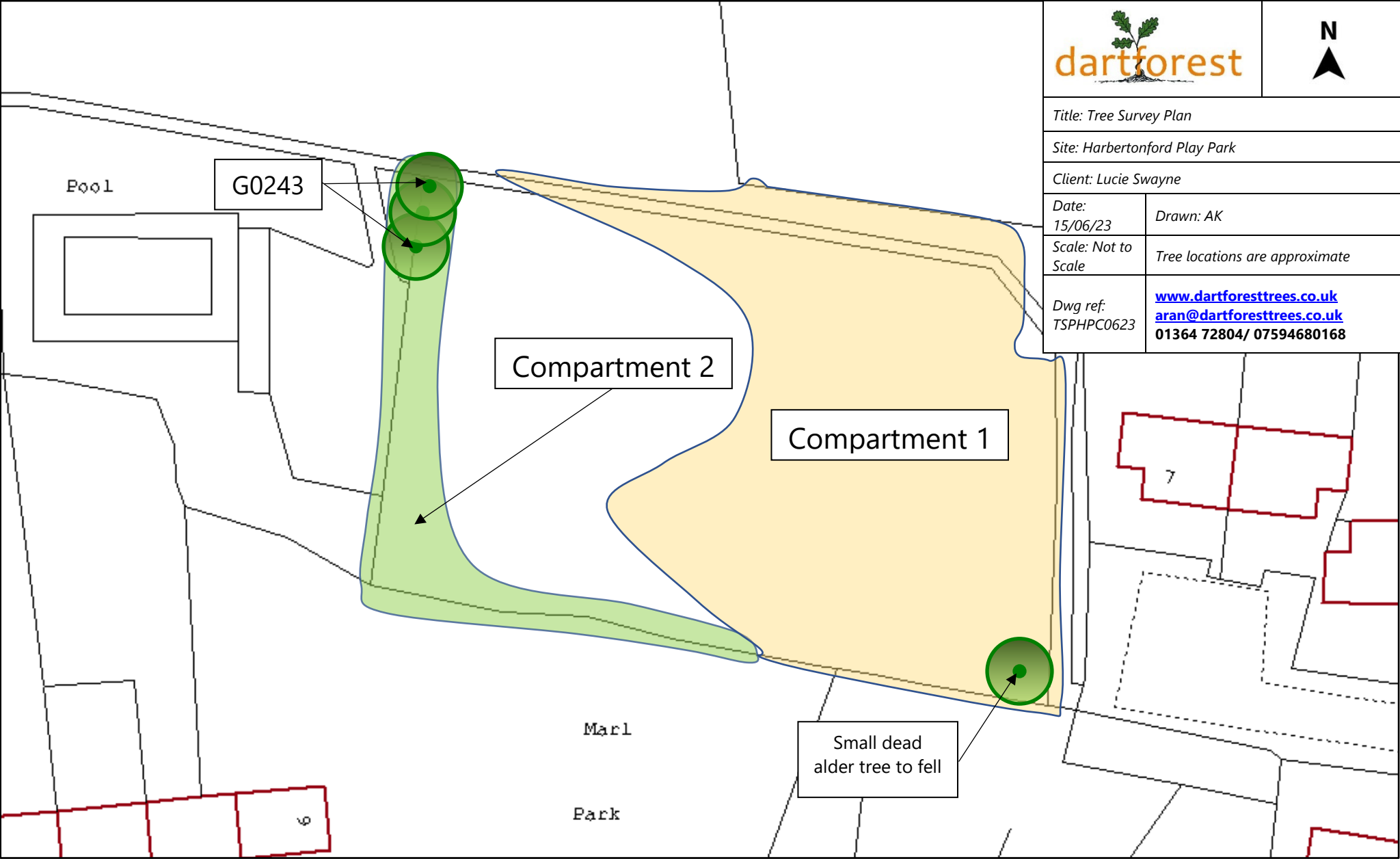
VITALITY: A MEASURE OF PHYSIOLOGICAL CONDITION.

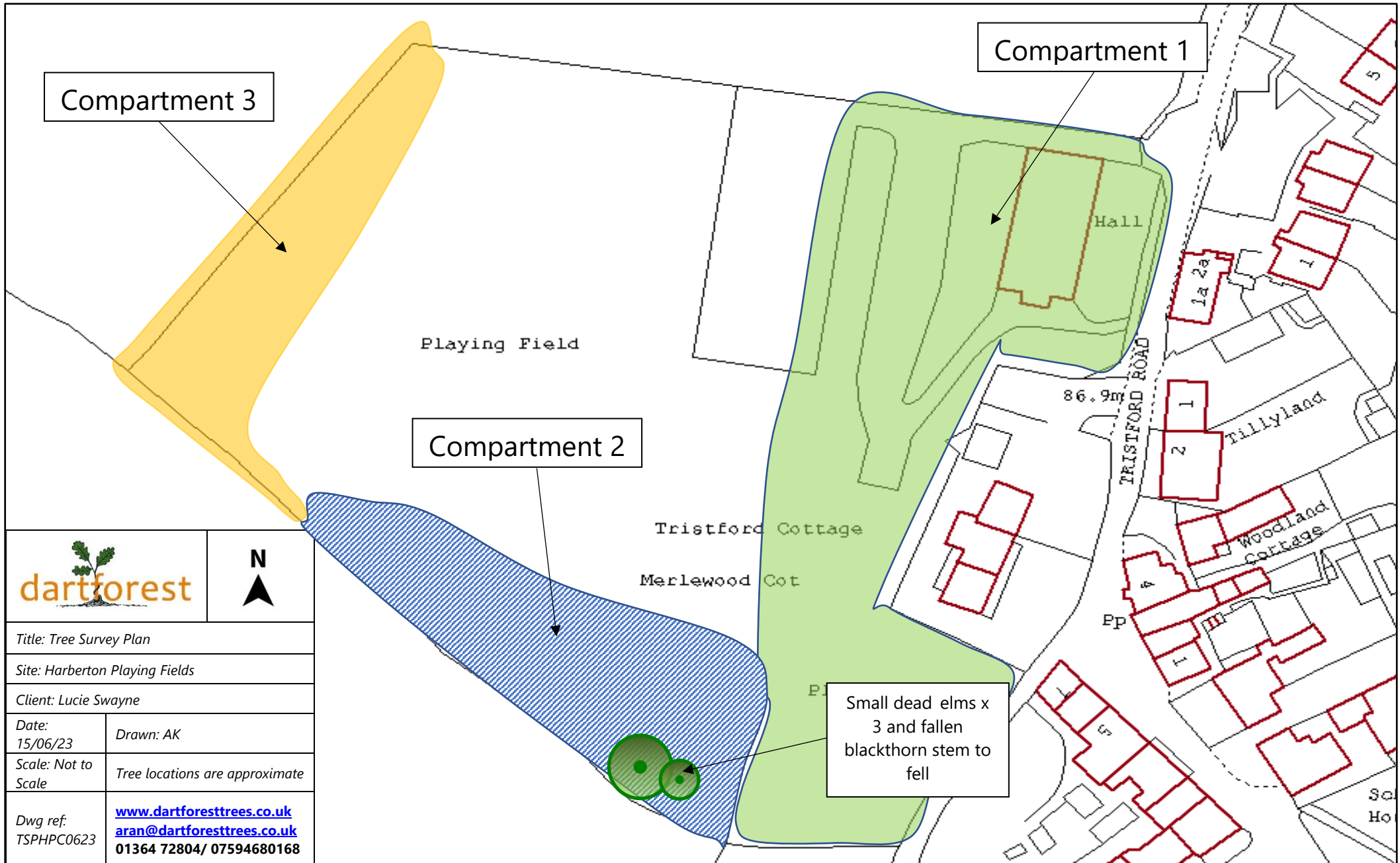
G= GOOD, M= MODERATE, P= POOR, MD = MORIBUND, D= DEAD,

QTRA RISK RATING: RISK OF SIGNIFICANT HARM , 1,000 = RISK INDEX (E.G. RISK INDEX 20 = RISK OF SIGNIFICANT HARM 1 IN 20,000)




INSPECTION FREQUENCY: PERIOD (IN YEARS) TO NEXT INSPECTION BY COMPETENT PERSON

Appendix 2: Site Map and Tree Location





Appendix 3: Stages of Ash Dieback Disease taken from
The Tree Council (2019) Ash Dieback Disease: A Guide for Tree Owners

Class 1 – 100% - 76% Crown present	
Class 2 – 75% - 51% Crown remains	
Class 3 – 50% - 26% Crown remains	
Class 4 – 25% - 0% Crown remains	