

RESIDE DEVELOPMENTS LTD.



ECOLOGYSOLUTIONS

Part of the ES Group

LAND SOUTH OF
FUNTLEY ROAD,
FUNTLEY

**Great Beamond Coppice SINC
/ Ancient Woodland
Management and Monitoring Plan**

April 2021
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1. INTRODUCTION

1.1. Background

- 1.1.1. Ecology Solutions was originally instructed by Reside Developments Ltd. to undertake a Phase 1 walkover survey of Land South of Funtley Road, Funtley (the “application site”) in May 2016 in order to determine potential ecological constraints associated with the site. Subsequent to this, a series of detailed surveys were undertaken in order to inform an outline planning application for 55 dwellings (planning reference P/18/0067/OA). Planning permission was subsequently granted for that scheme by Fareham Borough Council in September 2020.
- 1.1.2. Ecology Solutions was then commissioned to undertake additional survey and assessment work in 2020 pursuant to a new outline planning application for up to 125 dwellings (planning reference P/20/1168/OA).
- 1.1.3. Following the submission of the revised outline planning application, Fareham Borough Council (FBC) / Hampshire County Council (HCC) requested additional information regarding potential impacts of the development proposals on Great Beamond Coppice Site of Interest to Nature Conservation (SINC) / ancient woodland.
- 1.1.4. An ancient woodland Impact Assessment was produced in line with the assessment scope (dated January 2021) agreed between Ecology Solutions and FBC / HCC. The findings of this assessment are referenced where appropriate in this plan, and a copy of that assessment report is included at Appendix 1.
- 1.1.5. Subsequent to that assessment, in following precautionary approach a Draft Woodland Management and Monitoring Plan was requested by Natural England. It was confirmed by Natural England in correspondence dated 26th March 2021 that subject to the agreement of such a plan with the Council ecologist (e.g. HCC as a service provided in this instance) secured by way of planning condition, its concerns regarding impacts on Ancient woodland would be addressed.
- 1.1.6. It should be noted that as part of the broader mitigation / enhancement package proposed, all areas of public open space and green infrastructure associated with the Community Park and residential development will be subject to ongoing management and monitoring to ensure that their biodiversity value is maximised. The mechanisms are discussed below where relevant. The focus however, of this report, is on the retained Great Beamond Coppice SINC / Ancient Woodland.

1.2. Purpose of this Document

- 1.2.1. This document provides a summary of the current baseline situation of the Great Beamond Coppice SINC / Ancient woodland and outlines the long-term objectives associated with proposed woodland management, in addition to detailing a broad management and monitoring strategy for the woodlands, in order to ensure that the biodiversity and ecological value of these habitats are maximised over time.

- 1.2.2. This document relates to woodland parcels **W1**, **W3** and **W4** as shown on Plan ECO1. All woodland parcels within the application site are described below. Whilst this particular document has a narrow focus, it should be noted that as part of the broader proposed mitigation / enhancement package, all areas of public open space and green infrastructure associated with the Community Park and residential development would be subject to ongoing management and monitoring to ensure that their biodiversity value is maximised.

2. BASELINE SITUATION

- 2.1.1. All four woodland blocks on-site have been subject to habitat surveys in 2016, 2020 and 2021. For completeness, the descriptions of their botanical interest are presented below. The location of the woodlands are shown on Plan ECO1.
- 2.1.2. **W1** is classified as ancient woodland and forms the larger block of woodland associated with the Great Beamond Coppice SINC. Species present include Common Sallow *Salix cinerea*, Hazel *Corylus avellana*, Blackthorn *Prunus spinosa*, Field Maple *Acer campestre*, Hawthorn *Crataegus monogyna*, English Oak *Quercus robur*, Holly *Ilex aquifolium*, Ash *Fraxinus excelsior*, Silver Birch *Betula pendula*, Alder *Alnus glutinosa*, Butcher's Broom *Ruscus aculeatus*, Bramble *Rubus fruticosus* agg. and Ivy *Hedera helix*.
- 2.1.3. Species present in the ground flora include Bracken *Pteridium aquilinum*, Nipplewort *Lapsana communis*, Dove's-foot Crane's-bill *Geranium molle*, Common Figwort *Scrophularia nodosa*, Wood Sorrel *Oxalis acetosella*, Bluebell *Hyacinthoides non-scripta*, Herb Robert *Geranium robertianum*, Sedge *Carex* sp., Petty Spurge *Euphorbia peplus*, Wood Sage *Teucrium scorodonia*, Lords-and-ladies *Arum maculatum*, False Brome *Brachypodium sylvaticum*, Wood Melick *Melica uniflora*, Wood-sedge *Carex sylvatica* and Wavy Hair-grass *Deschampsia flexuosa*. Scaly Male Fern *Dryopteris affinis*, Primrose *Primula vulgaris* and Wood Speedwell *Veronica montana*.
- 2.1.4. It should be noted that **W1** currently contains a footpath / cycleway that runs north to south through the woodland and has an asphalt surface.
- 2.1.5. **W2** is a tree block located in the north of the application site, while **W3** and **W4** are tree blocks located in the south.
- 2.1.6. A similar species composition is found across **W2** and **W3** as in **W1**. The canopy of **W4** however consists solely of English Oak that are well spaced and positioned in a uniform manner. The understorey of **W4** comprises semi-improved grassland dominated by perennial ryegrass.

Woodland Survey

- 2.1.7. A woodland survey undertaken in January 2021 covered all areas of woodland within the application site, with attention paid towards evidence of recreational pressure. The results of this survey are summarised below (see section 4.2 of Appendix 1 for full details).
- 2.1.8. The woodland present within the application site showed limited signs of recreational disturbance. All woodland areas are fenced at the boundaries with no permissive pathways or woodland floor disturbance recorded. The topography of **W1**, **W2** and **W3** is highly variable with steep banks, wet low-lying land and dense vegetation hampering / preventing access.
- 2.1.9. **W1** is known to have been subject to historic quarrying as part of a brickworks, this explains the highly variable topography within this woodland.

- 2.1.10. The only established footpath / cycleway through woodland is situated within **W1** and has an asphalt surface which showed evidence of horse riding (horse droppings). Again, no permissive pathways were recorded within this woodland, although a number of mammal paths, some leading to badger setts were noted.
- 2.1.11. Small amounts of litter were recorded within all woodland areas, usually at the woodland edge. This can be attributed to the current uses (e.g. equestrian and dog kennels). Also recorded was a large pile of burned material within **W4** that is attributed to current land use.
- 2.1.12. The woodland survey recorded little sign of recent management within any of the woodland areas, resulting in a dense canopy and understorey.

3. WOODLAND MANAGEMENT BACKGROUND

- 3.1. Woodland ecosystems have been heavily influenced for generations by past management systems, most notably coppicing and thinning, and it is likely that maintaining or reintroducing these management practices, the greatest opportunities are provided to retain and enhance the range of species present and increase overall the biodiversity value of the woodland itself. This in turn helps retain the character and qualities for future and present enjoyment, visual and educational experiences.
- 3.2. Many species have over time adapted to the cycle of light and shade that pervades most woodland types. In the 'wildwood' (that which occurred before man's intervention), light became available through wind blow, damage by grazing animals or trees reaching the natural end of life. Management by coppicing mimics this cycle, albeit on a shorter timescale. This cycle is particularly necessary in small woodlands in order to retain and renew the populations of a range of species.
- 3.3. In most deciduous woodland there are three distinct layers. Firstly the canopy layer (large standard trees, Oak, Ash, Cherry, Lime etc.) which may be well spaced but, nonetheless, in high summer provide a cover of branches shading the layers below. They form the backbone of the woodland structure.
- 3.4. The second is the shrub layer, (Hazel, Blackthorn, Hawthorn, etc.). These species tend to grow rapidly though, even at maturity, seldom if ever form high canopy structures. They come into leaf significantly weeks in advance of the canopy, and provide the 'meat' of the woodland structure, providing cover, a warm micro-climate, shelter from wind and nesting sites and food for birds and invertebrates in particular.
- 3.5. The third is the field or ground layer, which consists of species which are adapted to woodland conditions. These species tend to grow rapidly, flower and set seed very early in the year, taking advantage of light availability before the shrub and canopy layers limit light reaching the woodland floor. Species in this layer often have survival strategies to see them through difficult periods when light availability may be limited. For example, Bluebell and Wild Garlic store food and water in modified stem structures which are commonly referred to as bulbs, while other species such as Foxglove set down so much seed that these remain viable till suitable conditions return.
- 3.6. Management should seek to replicate this cycle with the ultimate aim of strengthening all of the three layers. Coppicing, for example, is the practice of cutting the shrub layer just above ground level. These species regenerate rapidly from the cut stump, since there is an extensive root system which remains undisturbed by the coppicing process. For three/four years after coppicing light availability is at its highest since only the canopy exists above, providing ideal growing conditions for the woodland field layer, strengthening existing populations and allowing new seed to germinate and survive long enough to form the storage structures necessary to withstand less favourable conditions. By years 5 to 15 the coppiced shrub layer has formed a dense stand of woody vegetation important to breeding birds and some woodland invertebrates. The closing of the shrub layer limits light availability killing off non-woodland species through lack of light.

- 3.7. Change within woodlands is relatively slow, so a decade of appropriate management may only result in the start of long-term gains, though short term advantages to mobile species, birds and butterflies can be seen after limited time periods. Management strategies should be planned to last centuries, even though, the detailed plan may be written on ten/twenty-year management cycle. Importantly, short term tactics should be based on long term vision.
- 3.8. The woodland habitats present within the application site/s while supporting limited areas of relatively better-quality habitat, have largely suffered ecologically from a historic lack of management. The overall vision for Great Beamond Coppice SINC / Ancient Woodland should be to stem its vulnerability to change and increase the biodiversity value, ensuring that its improved condition increases its ability to adapt to changing conditions.

4. MANAGEMENT OBJECTIVES

- 4.1. The broad Management Strategy objective is to initiate appropriate management to ensure the woodlands position within the ecological network is secured. The overall vision seeks:
- I. To enhance the site's ancient woodland character;
 - II. To enhance the nature of deciduous woodland and the variety of management types represented including coppice with standards;
 - III. To enhance the interest in the flora of the site including the more uncommon or ancient woodland indicator species;
 - IV. To ensure the successful establishment of areas of proposed new woodland planting and to maximise their ecological condition;
 - V. To seek eradication of non-native species such as Japanese Knotweed (known from the wider site).
 - VI. To provide enhanced opportunities for protected species within the woodland, including bats and birds;
- 4.2. The major limiting factor to the ongoing ecological condition of the woodland is considered to be the level of detrimental shading to the ground floral diversity due to the relatively continuous canopy cover and, in places, the dense shrub layer.
- 4.3. It is considered that in the absence of appropriate ongoing management, the ground floral communities will deteriorate in future. In order to ensure that the woodland achieves its optimal ecological condition it is considered that a limited range of management measures will be required.
- 4.4. It is also noted that where non-native or other species with a tendency to be invasive are present, their presence would represent a further limiting factor to the overall supported ecological value. In areas where Bracken is dominant and is outcompeting other woodland flora such as Bluebell, it is proposed that species would be managed to ensure that fragmented carpets of Bluebell and other woodland ground flora are connected in the future. Measures will be taken to restrict and subsequently reduce Bracken cover although care will be taken to ensure other species of ferns are not impacted, which will be detailed in the full management plans.
- 4.5. While the current woodland composition and structure may have some advantages for certain faunal species or groups, it is considered that the current condition of the woodland for invertebrates, bats and birds can be significantly enhanced through appropriate management.
- 4.6. Areas of proposed woodland will be subject to a range of management prescriptions to ensure that these areas achieve their maximum ecological value and that this is maintained in future.
- 4.7. The current footpath / cycleway which runs through **W1** will be physically closed off.

- 4.8. The following sections of this Management Strategy provide broad management actions/prescriptions to be implemented in order to achieve the management objectives.

5. MANAGEMENT PRESCRIPTIONS

- 5.1. While the majority of the woodland areas to be subject to management are to some degree, of varying species composition and structure it is considered that similar broad management prescriptions, which can apply to all areas of woodland to be brought into management, will simplify management and will be appropriate to the achievement of the objectives outlined above.

Canopy Management

- 5.2. The entirety of each woodland block is to be managed as mixed canopy woodland with mixed coppice. This will accomplish the management objectives by increasing the biodiversity of the woodland in addition to complementing and enhancing the existing woodland character, making it more resilient to change.
- 5.3. Canopy trees should be developed to encourage diversity. Examples of all canopy species including Oak, Ash, Beech and Birch should be selected as younger stock to come forward.
- 5.4. Where areas are currently dominated by particular species at the canopy level, such as Oak, these will retain their character over the long term with mature trees retained and managed for their continued survival. Where possible younger more diverse stock will be encouraged to fill any gaps at the canopy level where these become available over time through natural losses.
- 5.5. All more mature native mature trees should be retained but where young stock is overcrowded these should be removed/thinned.

Coppicing Measures and Understorey Management

- 5.6. Plan ECO2 shows proposed management compartments. For W1, within these compartments Ash, Sallow (or other willow) and Hazel (not selected as canopy or future canopy trees), will be coppiced on a medium rotation (10 years). Where appropriate, Field Maple, Holly, and other shrubs species will also be thinned within the relevant year's management compartment such that any dense understorey stands are no more than circa 5x5m².
- 5.7. Canopy trees, such as Oak or Ash will be thinned once every 15-20 years, where appropriate, to allow light through to the understorey and ground layer maintaining a diverse woodland structure.
- 5.8. Given the smaller size of **W3**, but noting it's existing structure and diversity of tree species, it will be managed as a single compartment, with a sensitive low impact management regime adopted. A group of four trees (of Hazel, Ash or Willow sp.) will be selected for coppicing each year subject to a ten year rotation (i.e. each coppiced again in year ten).
- 5.9. **W4** is a more mature tree group with no understorey. Year 1 management will comprise bolster / understorey planting of Oak, Hazel, Holly, Field Maple, Hawthorn and Blackthorn. From year ten a sensitive low impact management regime will be adopted. The developing understorey will be

thinned to increase light penetration. In subsequent years four Hazel understorey trees will be selected for coppicing each year subject to a ten year rotation (i.e. each coppiced again in year ten).

- 5.10. For all three woodlands, Hawthorn and Blackthorn located within the woodlands and away from the woodland edge zone should be thinned to provide small groups of three to five individuals. This approach will ensure that a range of foraging resources are available for small mammals and birds while also allowing for sufficient light dispersion to the supported ground flora.
- 5.11. Some areas of relatively dense Blackthorn, Hawthorn and Bramble should be encouraged and selectively cut to form low (1.25m high) dense stands no more than 4 x 4m². These dense 4 x 4m thick stands provide overwintering sites for invertebrates and ideal nesting sites for summer warblers. Young tree species should be encouraged at the centre of the 4 x 4m stand where possible to act as song posts for woodland bird species.
- 5.12. The understorey of **W1** (and **W4**) will be subject to bolster planting with dense and thorny species such as Blackthorn, Hawthorn and Holly.

Ground Layer Management Measures

- 5.13. Stands of Japanese Knotweed *Fallopia japonica* present at the woodland edge of **W1** and **W3** will, as with all other stands present at the application site, be subject to appropriate management by specialist contractors who will develop a detailed strategy. This would likely to take the form of herbicide and / or removal from site.
- 5.14. A large proportion of the woodland ground flora is dominated by low level Bramble which effectively shades out many other ground flora species. It is proposed that the management regimes outlined above in respect of the canopy and coppicing measures will result in a more diverse ground flora due to varied light levels however where Bramble is persistently dominant in the long-term further control measures such as regular cutting and removal of root clumps may be necessary.

Provision of Bat, Bird and Dormouse Boxes

- 5.15. Often the number of nesting sites for hole nesting birds is limited unless there are significant proportions of dead, damaged or diseased mature specimen trees. Similarly, without extensive cavities, potential roost site availability for bats is also limited in extent. Enhanced nesting opportunities for Dormouse can also be delivered through the use of bespoke nesting boxes.
- 5.16. A range of bird and Dormouse nesting boxes and bat roosting boxes will be provided. The potential of the site could be markedly increased in this respect. Boxes should be of a variety of sizes and designs to suit a wide range of different species. All boxes will be made from robust material known to be of value to the target species.

Creation of New Woodland / Scrub

- 5.17. Woodland / scrub will be planted in buffer zones associated with Great Beamond Coppice SINC and also in several locations within the community park. The planting strategy (to be the subject of a planning condition) will deliver enhanced connectivity through the site. These new planting areas will be subject to the appropriate ground preparation before planting, which will include spraying off Bracken. Protective fencing will be established around the woodland planting to mitigate against damage by grazing / browsing animals and any damage by the public.
- 5.18. Management of newly planted woodland, trees and dense scrub will initially aim to ensure the successful establishment of these habitats and the provision of an appropriate structure. Woodland will be managed in such a way as to encourage a very dense arboreal layer to form, which will be of particular benefit for a range of species including nesting birds. This will ensure that its inherent ecological value and opportunities for faunal species are maximised.
- 5.19. Management in the first 5 years will comprise periodic control of ruderal vegetation / long grassland present in close vicinity to newly planted trees and scrub. Whilst some minor trimming may be undertaken at the boundaries of woodland / dense scrub blocks, it is not envisaged that any specific management would be required within these areas for the first 5 years, beyond monitoring of new planting and replacement where necessary.
- 5.20. In the long term, all trees will be subject to appropriate arboriculture, where necessary, to help prolong their life. The condition of both existing and newly planted trees within the site will be monitored to ensure that favourable condition is maintained.
- 5.21. From Year 10, groups of trees within newly planted woodlands will be thinned using a small-scale group-felling strategy to open up the canopy and allow more light into the ground layer. From this period onwards, thinning works will be undertaken, where necessary, once every 15-20 years to provide a suitable and biodiverse woodland structure.
- 5.22. Following a period of approximately 25 years it is considered that woodland management prescriptions as set out above in respect of areas of existing mature woodland, will be adopted for all areas of proposed new woodland planting with the aim of creating continuous areas of high quality habitat which will also provide optimal conditions for the spread of woodland ground flora and other wildlife into these areas.

Buffering of Woodland

- 5.23. A buffer zone between the ancient woodland and the proposed development is a primary method for avoiding impacts. The woodlands to south of the application about the Community Park and as such buffer zones are only relevant to the north. In particular, the northern and western boundaries of **W1** will be buffered from back garden by up to 37m in some areas, this will prevent damage from fly tipping and other recreational impacts.

- 5.24. This buffer zone will be utilised to provide both tree planting and dense scrub

Restriction of Access / Prevention of Damage

- 5.25. All woodland within the application site will remain adequately fenced at the boundaries. New fencing will be erected to fully enclose the ancient woodland (**W1**) given the closing of the footpath / cycleway which runs through it. The ancient woodland will also be separated from back garden by buffer zones to reduce the possibilities of fly tipping. Access will be further restricted through the planting of dense and thorny species such as Blackthorn, Holly, Butcher' Broom and Bramble within all woodland parcels.
- 5.26. Dead hedging and new shrub / tree planting will be provided within the woodland to deter activities such as mountain biking. This would be subject to reactive management where signs of use are first identified during monitoring before measures are implemented.
- 5.27. Waste bins will be provided throughout the open space areas to promote anti-littering behaviours and signage will be erected to inform the public of the sensitivity of the ancient woodland.
- 5.28. The small amounts of litter currently present within the woodlands will be removed in year 1, prior to the commencement of any enhancement works.

Monitoring and Remedial Measures

- 5.29. Planted trees / shrubs will be monitored, with specific attention required during the first 5 years (establishment period) any failed specimens will be replaced as required.
- 5.30. Regular monitoring will be required to detect any damage within the woodlands. This will include the detection of any permissive paths which will be closed though the use of dead hedging and new thorny planting to avoid or minimise potential impacts.
- 5.31. It is proposed that monitoring checks will be undertaken twice annually, in May / early June, and December. The summer check will be timed to coincide with the period when the majority of woodland herbaceous plants are visible (gauge on the success of management in terms of species diversity) and also, an increase in outdoor recreation by local residents. The winter check will be undertaken when leaf fall will facilitate easier observation of any footpath creation or other physical 'damage'.
- 5.32. Activities such as mountain biking and evidence of damage caused by such activities within the woodland would be monitored. In the event that recreational activities do occur within the woodland, strategic placement of dead hedging and planting of new shrub / trees will be instated as soon as is practicable.
- 5.33. Fencing around all areas of woodland will be monitored and repaired / replaced as necessary throughout the duration of the management scheme.

- 5.34. All bird and bat boxes will be monitored for signs of decay and those that are damaged will be replaced.

Funding for the strategy














- 5.35. Funding will be secured through a section 106 agreement with all woodland areas (including Great Beamond Coppice) and the wider community park to be transferred to Fareham Borough Council with a financial contribution for future management.
- 5.36. The section 106 agreement for the previous consented outline scheme at the application site presents a figure of £802,000 to be paid towards the maintenance of the community park. 50% of the total sum would be paid upon reaching 25% occupation of the development with the remaining 50% paid upon reaching 50% occupation. It is understood that a similar approach would be relevant in this instance.

PLANS

PLAN ECO1

Woodland Areas



-  APPLICATION SITE BOUNDARY
-  SEMI-IMPROVED GRASSLAND
-  WOODLAND
-  RUDERAL VEGETATION
-  SCRUB
-  TRACK / MADE GROUND
-  HARDSTANDING
-  BUILDING
-  FENCING
-  HEDGEROW
-  TREE
-  JAPANESE KNOTWEED
-  POND



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
PLAN ECO1: WOODLAND AREAS

Rev: A
 Mar 2021

PLAN ECO2

Proposed Management Compartments



-  APPLICATION SITE BOUNDARY
-  WOODLAND SUBJECT TO MANAGEMENT MEASURES (INCLUDING COPPING AND THINNING AS APPROPRIATE)
-  WOODLAND NOT INCLUDED WITHIN MANAGEMENT AND MONITORING PLAN
-  INDIVIDUAL MANAGEMENT COMPARTMENTS WITH PROVISIONAL MANAGEMENT YEAR (BASED ON 10 YEAR ROTATION)

Woodland edge zone kept dense to restrict access



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7601: LAND SOUTH OF FUNTLEY ROAD, FUNTLEY

PLAN ECO2: WOODLAND MANAGEMENT COMPARTMENTS	Rev: A Apr 2021
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APPENDICES

APPENDIX 1

Ancient Woodland Impact Assessment

RESIDE DEVELOPMENTS LTD.



ECOLOGYSOLUTIONS

Part of the ES Group

LAND SOUTH OF
FUNTLEY ROAD
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**Ancient Woodland
Impact Assessment**

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PLAN ECO1 Woodland Survey Results

APPENDICES

APPENDIX 1 Information obtained from MAGIC

APPENDIX 2 Photographs

1. INTRODUCTION

1.1. Background

- 1.1.1. Ecology Solutions was originally instructed by Reside Developments Ltd. to undertake a Phase 1 walkover survey of Land South of Funtley Road, Funtley (the “application site”) in May 2016 in order to determine potential ecological constraints associated with the site. Subsequent to this, a series of detailed surveys were undertaken in order to inform an outline planning application for 55 dwellings (planning reference P/18/0067/OA). Planning permission was subsequently granted for that scheme by Fareham Borough Council in September 2020.
- 1.1.2. It should be noted that as part of the outline planning application for 55 dwellings, it was accepted by Fareham Borough Council that development could come forward with the provision of 15m buffer from the ancient woodland boundary.
- 1.1.3. Ecology Solutions was then commissioned to undertake additional survey and assessment work in 2020 pursuant to a new outline planning application for up to 125 dwellings (planning reference P/20/1168/OA).
- 1.1.4. Following the submission of the revised outline planning application, Fareham Borough Council (FBC) / Hampshire County Council (HCC) requested additional information regarding potential impacts of the development proposals on Great Beamond Coppice Site of Interest to Nature Conservation (SINC) / ancient woodland.
- 1.1.5. This ancient Woodland Impact Assessment has been produced in line with the assessment scope (dated January 2021) agreed between Ecology Solutions and FBC / HCC.

1.2. Purpose

- 1.2.1. This document assesses the current ecological condition and interest of the woodland as a whole and in the context of the wider area. The importance of the habitats present is evaluated with regard to current guidance published by the Chartered Institute of Ecology and Environmental Management (CIEEM)¹.
- 1.2.2. Where necessary, mitigation measures are recommended so as to safeguard any significant existing ecological interest within the Survey Area and, where appropriate, potential enhancement measures are put forward.

1.3. Proposals

- 1.3.1. Outline permission is sought to provide up to 125 one, two, three and four-bedroom dwellings including 6 Self/Custom build plots, Community Building or Local Shop (Use Class E & F.2) with associated infrastructure, new community park, landscaping and access.

¹CIEEM (2018) Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine version 1.1. Chartered Institute of Ecology and Environmental Management, Winchester

1.4. **Summary of Survey Work**

- 1.4.1. Habitat surveys were initially carried out in May 2016 and the period between September 2017 to October 2017 with further update surveys undertaken between July 2020 and September 2020. The aim of the surveys was to ascertain the general ecological value of the land contained within the boundaries of the application site as a whole and to identify the main habitats and associated plant species, with notes on fauna utilising the application site.
- 1.4.2. A further specific survey was undertaken on 25th January 2021 to further inform the baseline relevant to an assessment of potential impacts on the Great Beamond Coppice Site of Interest to Nature Conservation (SINC) / ancient woodland. A particular focus was to establish evidence relating to the current (baseline) recreational pressures affecting the site, which could be exacerbated by an increase in the number of local residents.

2. PLANNING POLICY AND RELEVANT GUIDANCE

- 2.1. The relevant planning policy framework that relates to ancient woodland (at each of the relevant administrative levels) is detailed below.

National Policy

National Planning Policy Framework

- 2.2. Guidance on national policy for biodiversity and geological conservation is provided by the National Planning Policy Framework (NPPF) published in February 2019. Section 15 of the NPPF is of direct relevance to this assessment and this is considered in detail below.

- 2.3. Section 15 of the NPPF, 'Conserving and enhancing the natural environment', includes the following:

"170. Planning policies and decisions should contribute to and enhance the natural and local environment by:

- a) protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils (in a manner commensurate with their statutory status or identified quality in the development plan);*
- b) ...*
- c) ...*
- d) minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures;*

..."

"174. To protect and enhance biodiversity and geodiversity, plans should:

- a) Identify, map and safeguard components of local wildlife-rich habitats and wider ecological networks, including the hierarchy of international, national and locally designated sites of importance for biodiversity; wildlife corridors and stepping stones that connect them; and areas identified by national and local partnerships for habitat management, enhancement, restoration or creation; and*
- b) promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species; and identify and pursue opportunities for securing measurable net gains for biodiversity."*

- 2.4. The hierarchy of designated sites is explicitly recognised by the NPPF, as is the importance of wildlife corridors and ecological networks.

- 2.5. National planning policy guidance for ancient woodland is provided by paragraph 175 of the NPPF, which also includes general guidance on determining of planning applications:

"175. When determining planning applications, local planning authorities should apply the following principles:

- a) if significant harm to biodiversity resulting from a development cannot be*

avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;

b) ...

c) development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons and a suitable compensation strategy exists; and

d) development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to incorporate biodiversity improvements in and around developments should be encouraged, especially where this can secure measurable net gains for biodiversity.”

2.6. The NPPF therefore explicitly recognises that the policy protection afforded to ancient woodland is not absolute, and that where the need for and benefits of a given development outweigh the loss then planning permission should be granted. Implicit in this statement is a value judgment on the respective merits of the ancient woodland site and the proposal at hand.

2.7. The NPPF also provides a definition of ancient woodland as:

“An area that has been wooded continuously since at least 1600 AD. It includes ancient semi-natural woodland and plantations on ancient woodland sites (PAWS).”

2.8. Furthermore, the NPPF defines irreplaceable habitat as:

“Habitats which would be technically very difficult (or take a very significant time) to restore, recreate or replace once destroyed, taking into account their age, uniqueness, species diversity or rarity. They include ancient woodland, ancient and veteran trees, blanket bog, limestone pavement, sand dunes, salt marsh and lowland fen.”

2.9. Though PPS9 has been superseded by the NPPF, the new planning guidance nevertheless makes reference to further guidance in respect of statutory obligations for biodiversity and geological conservation and their impact within the planning system provided by Circular 06/05. Paragraph 91 of the Circular states:

“Veteran and other substantial trees and many types of woodland, especially ancient semi-natural woodland, can be of importance for biodiversity conservation. When considering whether particular trees or woodlands merit a TPO in the interests of amenity, local planning authorities should, where appropriate, include consideration of their nature conservation value.”

Natural Environment White Paper (June 2011)

2.10. “The Natural Choice: securing the value of nature”, the Government White Paper on the environment, was published in June 2011. It contains general commitments in terms of biodiversity, and also refers specifically to woodlands, including ancient woodland and plantations on ancient woodland sites.

2.11. Paragraphs 2.53 to 2.56 are sub-titled Protecting and improving our woodland and forests. Paragraph 2.53 states:

“Our ambition is for a major increase in the area of woodland in England, better management of existing woodlands and a renewed commitment to conserving and restoring ancient woodlands.”

- 2.12. Paragraph 2.54 includes the following:

“We want to create more opportunities for planting productive and native woodlands...and a much larger proportion of existing woodlands brought into active management. ...this will enhance the wide range of benefits that woodlands provide, including...new wildlife habitats and green space for people to use and enjoy, helping us to mitigate and adapt to the future changing climate. It will also increase resilience to climate change, pests and diseases, and help to halt the loss of biodiversity.

- 2.13. The White Paper therefore actively encourages new native woodland planting, extending woodland management programmes and promoting their use by people, principles that the applicant has embraced as part of the strategy for the proposed development.

Natural England Standing Advice (Ancient woodland, ancient trees and veteran trees: protecting them from development)

- 2.14. Natural England has produced Standing Advice in relation to ancient woodland, which provides guidance to planning authorities in particular in assessing impacts of projects / developments on this habitat and the appropriateness of scheme design. Standing Advice in relation to ancient woodland is published online², with the latest update to the advice undertaken on 5 November 2018.

- 2.15. Natural England’s Standing Advice on ancient woodland is intended to inform Local Planning Authorities of Natural England’s position on developments that could affect ancient woodlands without the need for a formal consultation on each occasion.

- 2.16. Section G of the Circular 06/2005 accompanying PPS9 directs that when determining an application for development that is covered by Standing Advice, decision makers must take into account that Standing Advice. Paragraph 2.2 of the Standing Advice also makes clear that it is a material consideration in the determination of planning applications.

- 2.17. Natural England’s definition of ancient woodland, as follows:

“It’s any area that’s been wooded continuously since at least 1600 AD. It includes:

ancient semi-natural woodland mainly made up of trees and shrubs native to the site, usually arising from natural regeneration plantations on ancient woodland sites - replanted with conifer or broadleaved trees that retain ancient woodland features, such as undisturbed soil, ground flora and fungi...

...Other distinct forms of ancient woodland are:

² Natural England and Forestry Commission, 2015. *Ancient woodland, ancient trees and veteran trees: protecting them from development*. [online] Available at: <<https://www.gov.uk/guidance/ancient-woodland-and-veteran-trees-protection-surveys-licences>> [Accessed 12 February 2021].

- *wood pastures identified as ancient*
- *historic parkland, which is protected as a heritage asset in the NPPF*

...‘Wooded continuously’ does not mean there’s been a continuous tree cover across the whole site. Not all trees in the woodland have to be old. Open space, both temporary and permanent, is an important component of ancient woodlands.”

- 2.18. The Standing Advice considers the policy protection afforded to ancient woodland by the NPPF at paragraph 175C, where it states that development should be refused unless a suitable strategy exists. The weight given to ancient woodland in planning decisions should be assessment on a case-by-case basis with a strategy agreed that is aimed at avoiding impacts, mitigate impacts and/or compensating impacts (as a last resort).
- 2.19. The Standing Advice sets out the following potential mitigation measures:
- “ ...
- *improving the condition of the woodland*
 - *putting up screening barriers to protect woodland or ancient and veteran trees from dust and pollution*
 - *noise or light reduction measures*
 - *protecting ancient and veteran trees by designing open space around them*
 - *identifying and protecting trees that could become ancient and veteran trees in the future*
 - *rerouting footpaths*
 - *removing invasive species*
 - *buffer zones”*
- 2.20. Further detail is provided with regard to the use of buffer zones. The purpose of the buffer zone is to protect the ancient woodland and the size and type of buffer zone can vary subject to the development proposed.
- 2.21. In relation to ancient woodland a buffer of 15m is set out in order to avoid root damage, where an assessment demonstrates other impacts are likely to extend beyond this distance, the buffer zone may need to be increased.
- 2.22. Buffer zones should contribute to the wider ecological network, form part of the green infrastructure of the area and consist of woodland, scrub grassland, heathland and/or wetland planting of native origin.
- 2.23. Buffer zones should avoid the inclusion of gardens and sustainable drainage features unless root protection can be respects and no other adverse effects to the ancient woodland arise.

3. SURVEY METHODOLOGY

3.1. The methodology utilised for the survey work can be split into two areas, namely desk study and detailed field survey. These are discussed in more detail below.

3.2. Desk Study

3.2.1. As part of this assessment, Ecology Solutions has reviewed relevant background information. This includes a suite of habitat, species and designated site information received from the Hampshire Biodiversity Information Centre (HBIC).

3.2.2. Further information on designated sites (and ancient woodland) was obtained from the online Multi-Agency Geographic Information for the Countryside (MAGIC)³ database, which utilises data provided by Natural England (Appendix 1).

3.3. Woodland Survey Methodology

3.3.1. The application site contains four woodland blocks, as shown on Plan ECO1, referred to as woodlands **W1**, **W2**, **W3** and **W4**. Of these woodlands, only woodland **W1** is on the ancient woodland inventory.

3.3.2. A survey was carried out on 25th January 2021 to ascertain the current condition of the all the woodlands onsite and their general ecological value. Specific regard was had to any evidence of recreational pressures within or at the boundaries of the woodlands.

3.3.3. The Survey Area was surveyed based around woodland survey methodology⁴, as recommended by Joint Nature Conservation Council that allows for a preliminary assessment of the ecological value of the habitat based primarily on the vascular plants recorded. The handbook sets out a number of methodologies that can be employed for the survey of woodland, however often the best method for obtaining an overall impression of a site involves a walked transect survey. Given the characteristics of the woodlands subject to survey and the aims of the survey, this method was considered the most appropriate.

3.3.4. The woodland was surveyed for any features that may be indicative of age, use or management of the site.

3.3.5. All the species that occur in each habitat would not necessarily be detectable during survey work carried out at any given time of the year, since different species are apparent at different seasons. However, existing up to date survey information on the botanical interest of the woodlands is available. Furthermore, the purpose of the update visit was to record evidence of current recreational pressures, for which no significant seasonal constraints are considered to exist.

³ <http://magic.defra.gov.uk>

⁴ Kirby, K.J., (1988), A woodland survey handbook, JNCC, Peterborough.

4. BASELINE CONDITIONS

- 4.1. All four woodlands on-site have been subject to habitat surveys in 2016 and 2020. During the survey undertaken in 2021, additional notes were also made on the floral species present. The descriptions of the woodlands botanical interest are presented below.
- 4.1.1. The application site contains the majority of the Great Beamond Coppice SINC, including the area of ancient woodland. Three additional tree blocks are also located within the application site.
- 4.1.2. **W1** is classified as ancient woodland. Species present include Common Sallow *Salix cinerea*, Hazel *Corylus avellana*, Blackthorn *Prunus spinosa*, Field Maple *Acer campestre*, Hawthorn *Crataegus monogyna*, English Oak *Quercus robur*, Holly *Ilex aquifolium*, Ash *Fraxinus excelsior*, Silver Birch *Betula pendula*, Alder *Alnus glutinosa*, Butcher's Broom *Ruscus aculeatus*, Bramble *Rubus fruticosus* agg. and Ivy *Hedera helix*.
- 4.1.3. Species present in the ground flora include Bracken *Pteridium aquilinum*, Nipplewort *Lapsana communis*, Dove's-foot Crane's-bill *Geranium molle*, Common Figwort *Scrophularia nodosa*, Wood Sorrel *Oxalis acetosella*, Bluebell *Hyacinthoides non-scripta*, Herb Robert *Geranium robertianum*, Sedge *Carex* sp., Petty Spurge *Euphorbia peplus*, Wood Sage *Teucrium scorodonia*, Lords-and-ladies *Arum maculatum*, False Brome *Brachypodium sylvaticum*, Wood Melick *Melica uniflora*, Wood-sedge *Carex sylvatica* and Wavy Hair-grass *Deschampsia flexuosa*. Scaly Male Fern *Dryopteris affinis*, Primrose *Primula vulgaris* and Wood Speedwell *Veronica montana*.
- 4.1.4. **W2** is a tree block located in the north of the application site, while **W3** and **W4** are tree blocks located in the south.
- 4.1.5. A similar species composition is found across **W2** and **W4** as in **W1**. The canopy of **W3** however consists solely of English Oak that are well spaced and positioned in a uniform manner. The understorey of **W3** comprises semi-improved grassland dominated by perennial ryegrass.

4.2. Woodland Survey Transect

- 4.2.1. The woodland survey undertaken on 25th January 2021 covered all the woodlands within the application site, with specific attention paid to any evidence of recreational pressure. The findings of the survey are described below.

Woodland W1

- 4.2.2. The boundary of woodland **W1** is fenced on all sides. The vast majority of the woodland boundaries are fenced with stock proof fencing (see Photograph 1 at Appendix 2) where adjacent fields are currently used for horse grazing. Only a short section (c.30m) of the woodlands north western corner is not fenced as it is sited next to an access track to the horse paddocks to the west.
- 4.2.3. Along the eastern boundary the woodland is again fenced at the top of a steep bank that runs down to a railway line. This steep bank is also

wooded, although it does not form part of the ancient woodland onsite and is not included on the ancient woodland inventory. This woodland extends further south towards the M27 motorway. The railway line separates the woodland from existing residential development to the east and the M27 separates the woodlands from residential development to the south (although a footbridge is present over the M27 to the south west of the applications site).

- 4.2.4. The northern boundary is also fenced (chain link fencing) along the roadside, behind which is a steep bank that was wet at its base at the time of the survey (see Photograph 2 at Appendix 2). As such, the only readily accessible points into the woodland are present along the existing footpath / cycle track.
- 4.2.5. The existing footpath / cycle track runs north to south through woodland **W1** and has an asphalt surface (see Photograph 3 at Appendix 2). Evidence of horse riding was noted on the existing footpath / cycle track (horse droppings), although no evidence of horse riding within the woodland was noted.
- 4.2.6. No established permissive paths were recorded within the woodland, although some mammal paths are present in association with Badger *Meles meles* setts present within the woodland (see Photograph 4 at Appendix 2). Evidence of Fox *Vulpes vulpes* and Deer *Cervidae* spp. was also recorded. The woodland floor lacked any signs of significant disturbance outside of the obvious mammal paths and Badger setts.
- 4.2.7. It should also be noted that the topography of the woodland is highly variable across the area. This is due to the change in elevation from the lowest to highest point being approximately 25m. Furthermore, the western extent of the woodland is understood to have been subject to historic quarrying as part of a brickworks that has left small tiers of relatively level ground surrounded by very steep banks. Many of the banksides are too steep to safely walk down, thereby preventing access into the woodland and also limiting access within it (see Photograph 5 at Appendix 2). The topography is more even within the eastern section of woodland with a generally steady incline uphill from north to south (see Photograph 6 at Appendix 2).
- 4.2.8. The extensive presence of woody and thorny / prickly understorey vegetation such as Bramble, Holly, Butchers Broom and Hawthorn limits the accessibility of the woodland, often forming areas of dense vegetation (see Photograph 7 at Appendix 2).
- 4.2.9. Other areas of lower lying land were notably wet during the survey. This would again limit access within the wood to some extent, at least during the winter months, or periods of high rainfall.
- 4.2.10. A small amount of litter was recorded in several areas. However, this was generally limited to the woodland edges and was considered to be most likely to be attributed to current land uses (e.g. equestrian and dog kennels).

- 4.2.11. One area adjacent to the existing footpath / cycle track contained a stockpile of green waste, and incidental piles of horse manure were also observed at the woodland edge.

Woodland W2

- 4.2.12. The boundary of woodland W2 is fenced on the western and eastern sides and backs onto stable blocks to the south. A ditch runs along the northern boundary.
- 4.2.13. Along the eastern boundary the woodland is fenced as part of the existing road access and is covered in dense scrub. The woodland edge is fenced along the western edge where it is adjacent to a horse paddock and horse menage. Other boundaries back onto stable buildings. Access into the woodland is currently restricted.
- 4.2.14. No direct connectivity to other woodlands is present.
- 4.2.15. No established permissive paths were recorded within the woodland. The woodland floor lacked any signs of significant disturbance.
- 4.2.16. The woodland shows little sign of recent management, resulting a dense canopy and understorey.
- 4.2.17. The topography of the woodland is highly variable across the area. The land on which the stable block is built is has been raised to create a level platform. This has resulted in steep banks being created along these boundaries. Areas of the woodland floor are known to become wet, at least during parts of the year.

Woodland W3

- 4.2.18. The boundary of woodland **W3** is fenced on all sides. The majority of the woodland boundaries are fenced with stock proof fencing where adjacent fields are currently used for horse grazing.
- 4.2.19. The southern boundary is also fenced along the trackside, although the fence is in a poor state of repair with several gaps present.
- 4.2.20. No direct connectivity to other woodlands is present, although woodland **W4** is nearby.
- 4.2.21. The south eastern part of the woodland is the highest point. Steep banks have been created, and it seems that quarrying may have also extended to this woodland. This has created a steep bank on the southern and eastern boundaries.
- 4.2.22. No established paths were recorded within the woodland, although some mammal paths are present in association with Badger setts present within the woodland. Evidence of Fox and Deer was again recorded. The woodland floor lacked any signs of significant disturbance outside of the relatively contained mammal paths and burrows.
- 4.2.23. As noted above, the topography of the woodland is highly variable across the area. This is due to the change in elevation from the lowest to highest

point being approximately 12m. Many of the banksides are too steep to safely walk down, thereby preventing access into the woodland and also limiting access within it.

- 4.2.24. The extensive presence of woody and thorny / prickly understorey vegetation such as Bramble is present at the boundaries of the woodland limited accessibility (see Photograph 8 at Appendix 2).
- 4.2.25. Other areas of lower lying land were notably wet during the survey (see Photograph 9 at Appendix 2). This would again limit access within the wood to some extent, at least during winter months.
- 4.2.26. A small amount of litter was recorded in several areas within the woodland. Again, this is attributed to current land uses (e.g. equestrian and dog kennels).

Woodland W4

- 4.2.27. The boundary of woodland **W4** is fenced on all sides. The majority of the woodland boundaries are fenced with stock proof fencing where adjacent fields are currently used for horse grazing.
- 4.2.28. Whilst woodland / scrub also exists along the M27 corridor, this is not accessible from woodland **W4** and is not accessible to the public due to the proximity to the carriageway.
- 4.2.29. The area of the woodland is relatively small, and the trees are well spaced, with a clear understorey and ground layer (see Photograph 11 at Appendix 2). No established permissive paths were recorded within the woodland. The topography of the woodland is relatively level.
- 4.2.30. Litter was fairly limited, but a large pile of burned materials was present within the woodland.

5. ECOLOGICAL EVALUATION

- 5.1. The latest guidelines for ecological evaluation produced by CIEEM propose an approach that involves professional judgement, but makes use of available guidance and information, such as the distribution and status of the species or features within the locality of the project.
- 5.2. The methods and standards for site evaluation within the British Isles have remained those defined by Ratcliffe⁵. These are broadly used across the United Kingdom to rank sites, so priorities for nature conservation can be attained. For example, current Site of Special Scientific Interest (SSSI) designation maintains a system of data analysis that is roughly tested against Ratcliffe's criteria.
- 5.3. In general terms, these criteria are size, diversity, naturalness, rarity and fragility, while additional secondary criteria of typicalness, potential value, intrinsic appeal, recorded history and the position within the ecological / geographical units are also incorporated into the ranking procedure.
- 5.4. Any assessment should not judge sites in isolation from others, since several habitats may combine to make it worthy of importance to nature conservation.
- 5.5. Further, relying on the national criteria would undoubtedly distort the local variation in assessment and therefore additional factors need to be taken into account, e.g. a woodland type with comparatively poor species diversity, common in the south of England may be of importance at its northern limits, say in the border country.
- 5.6. Levels of importance can be determined within a defined geographical context from the immediate site or locality through to the International level.
- 5.7. The legislative and planning policy context are also important considerations and have been given due regard throughout this assessment.

Woodland Evaluation

- 5.8. The wider landscape contains a number of woodlands of varying size, shape, type and ancient/recent status. These are shown at Appendix 1. Whilst connectivity exists between some woodlands, in general the wooded landscape is fragmented by existing development. Although this fragmentation may limit the potential ecological value of woodlands present, it may also serve to prevent deleterious effects for spreading (such as invasive species).
- 5.9. Woodland habitats are not considered to be especially fragile, relative to other habitats types, although the proposed residential development may increase their sensitivity to change / impacts.
- 5.10. Land use changes within or in proximity to woodland has the potential to affect it either directly, or indirectly.
- 5.11. The following pathways for effects are considered relevant to this assessment:

⁵ Ratcliffe, D A (1977). *A Nature Conservation Review: the Selection of sites of Biological National Importance to Nature Conservation in Britain*. Two Volumes. Cambridge University Press, Cambridge.

- Direct loss or damage;
- Habitat severance;
- Noise;
- lighting;
- Recreational pressure:
 - Trampling;
 - Litter;
 - Fire Setting;
 - Fly-tipping / garden waste;
 - Eutrophication (i.e. dog fouling).
- Increased predation / disturbance from pets; and
- Cumulative effects.

5.12. Such effects are discussed further below.

Direct loss or damage.

- 5.13. In line with relevant planning policy and guidance, direct loss of ancient woodland is to be avoided wherever possible. It is widely recognised that ancient woodland is a habitat which by definition is established over a significant timeframe and in planning policy terms it is defined as being an “irreplaceable habitat”.
- 5.14. Losses to trees in general, as part of the proposals will be avoided wherever possible. Notably, in relation to the ancient woodland onsite, all associated trees are to be retained with appropriate buffers delivered.
- 5.15. Wooded block **W2** (not ancient woodland) will be lost the proposals. All other woodlands will be retained in full.
- 5.16. It should be recognised that the ancient woodland boundary shown on the inventory is not consistent with the situation on the ground (existing woodland boundary of **W1**). The north eastern ancient woodland boundary overlaps Funtley Road, whereas the existing woodland clearly does not extend into the carriageway. The north western ancient woodland boundary extends to include areas of existing grassland, tracks and buildings, where no woodland features are present. Indeed, a retaining wall, constructed of tyres defines the woodland boundary at this point (see Photograph 11 at Appendix 2), with any tree cover being absent for at least 20 years. This is clearly visible from aerial photography⁶. To the south west the ancient woodland boundary falls within the woodland, with the existing woodland edge extending further south.
- 5.17. Ecology Solutions considers that the true boundary of the ancient woodland for assessment purposes is that associated with the perimeter tree line.
- 5.18. Notwithstanding the discrepancies between mapped woodland habitat and the extent of the existing woodland, as referenced above, for mitigation purposes, the proposed buffer associated with the northern part of the woodland has been applied to the ancient woodland boundary as shown on the Inventory. This therefore, results in a larger buffer the ancient woodland than would otherwise be delivered. This is a matter discussed in greater detail further below in relation to the proposed mitigation package.

⁶ Using the Google Earth timeline tool.

Habitat Severance

- 5.19. The removal of connectivity may result in impacts on faunal species foraging / commuting through the area and diminish the overall ecological value of a woodland. The woodlands onsite are already somewhat fragmented both in a site context and in view of the wider landscape, although some connectivity remains in the form of hedgerows, treelines and scrub.
- 5.20. No further habitat severance arises on any retained woodland as part of the proposals.

Noise Pollution

- 5.21. Noise can affect the species that may utilise the woodland habitat and thereby reduce its overall ecological value should such species be disturbed and dissuaded from using the habitat. The woodlands currently experience noise pollution due to the proximity to Funtley Road, the M27, the railway to the east and the noise associated with current land use. Any change in land use as part of the development is considered to result in no significant increase compared to the existing baseline.

Light Pollution

- 5.22. Similarly, with noise pollution, light pollution can disturb faunal species likely to be using the woodland habitat. The only artificial lighting present within or in close proximity to the woodlands is limited to the bollard lights present along the existing footpath / cycle track within woodland **W1** (see Photograph 3 at Appendix 2). Given that the ancient woodland will be buffered from development and other woodland falls far outside the proposed development footprint, it is considered that lighting associated within the proposals will not have a significant adverse effect on the retained woodlands.

Recreational Pressure

- 5.23. Recreational use of woodlands by people can result in adverse impacts to arise on the habitat. These impacts can take many forms. These are discussed below.

Trampling / compaction / erosion

- 5.24. The floral communities of natural and semi-natural habitats such as woodland are sensitive to disturbance and damage by trampling by dogs, cycles and walkers.
- 5.25. Trampling along paths can affect the understorey vegetation of woodlands. The Woodland Trust produced a report on impacts of nearby development on ancient woodland that cites evidence indicating that the frequency of path usage relates to level damage and disturbance to vegetation. Furthermore, trampling may also effect non-trampled vegetation through changes to micro-climate in the vicinity of the path and increased soil fertility due to disturbance of the soil along the path. Many woodland species respond poorly to damage caused by trampling with the proportion of such plants being markedly reduced in areas subject to disturbance compared with undisturbed areas.

- 5.26. The trampling effects of cyclists⁷ has been shown to cause incisions, soil compaction, erosion and reduced vegetation cover. However, these impacts tend to be concentrated to a narrow zone no greater than 30 cm from the track centreline, suggesting that cyclists tend to steer a similar course along established paths.
- 5.27. A Woodland Trust report⁸ recommends that the public's movements through sensitive woodland environments should be contained to a well-maintained path network to ensure the undisturbed areas are protected.
- 5.28. No evidence has been recorded of such activities taking place within the woodlands currently. The increase in residents as part of the proposals will increase the use of the woodlands and potentially increase the levels of trampling throughout. However, given the lack of accessibility across much of the woodlands due to the topography, hydrology and the fenced boundaries as well as the lack of established permissive paths it is considered that trampling effects would be limited overall.
- 5.29. The western extent of woodland **W1** is mostly unsuitable for walking due to the extremes in topography. The eastern extent has a more even gradient, although the change in height is likely to deter some people from climbing the hill on a regular basis (see Photograph 6 at Appendix 2). The woodland levels out to a more even topography towards its north eastern corner. However, whilst this area is more accessible, it is relatively small in comparison to the wider woodland and is situated in close proximity to Funtley Road to the north (which is raised above the woodland floor) and the railway line to the east. Such factors reduce its amenity appeal for recreational use such as dog walking.

Litter

- 5.30. Litter was noted to be limited during surveys. The litter recorded, consisted of food and drink packaging, notably near Funtley Road. Other litter includes discarded items related to existing land use such as pallets, buckets, ropes, discarded tea-bags and dog toys at woodland boundary habitat.
- 5.31. With a change in land use, it can be expected that the incidents of littering will change. Whilst littering from passing road traffic and pedestrians associated with Funtley Road will remain, the cessation of equestrian and dog boarding onsite will remove an existing source of litter.
- 5.32. The delivery of new dwellings onsite will introduce a new pathway for littering to arise. However, any increase in littering within woodlands would be directly related to how readily accessible the woodland is to them. The woodlands onsite are not considered to be easily accessible, due to the variable topography of the site and lack of existing pathways. Whilst incidents of littering along the existing track may increase, it is considered unlikely that littering within the wider woodlands would increase.

⁷ Natural England Report. 2009. NECR013. Scientific research into the effects of access on nature conservation: Part 2: access on bicycle and horseback. Footprint Ecology.

⁸ Ryan, L., Impacts of nearby development on ancient woodland – addendum. The Woodland Trust. December 2012.

- 5.33. This is a matter which can be effectively managed through waste bin provision / collection, signage and direct management through checks and collection as part of a wider suite of site management initiatives.

Fire Setting

- 5.34. As noted within woodland **W4** fire-setting has been recorded onsite (see Photograph 10 at Appendix 2). This is considered to be related to the existing land use and will be expected to cease once the land use changes.
- 5.35. With an increase in dwellings, fire setting and vandalism may potentially increase, although these incidents would likely be sporadic and limited in scale.
- 5.36. As with other potential pressures, deterring public access into the woodland will significantly reduce the potential for fire setting to affect the woodland.

Fly-tipping / garden waste;

- 5.37. Nearby residential development can increase the risk of fly tipping of waste in woodland habitats. Indeed, evidence of this was noted during the survey with green waste evident along the existing track within **W1**. Horse manure was also present at the woodland edges. Both of these are symptomatic of the existing land uses.
- 5.38. Fly tipping, particularly of garden waste can introduce alien and invasive species into the habitat and impact the soil chemistry, thereby negatively affecting the existing native species and changing the habitat. Japanese Knotweed *Reynoutria japonica* is known to be present within the wider site, although no invasive species were recorded within the woodlands. The Japanese Knotweed onsite is to be removed as part of the proposals.
- 5.39. With the change to residential land use, incidents of fly-tipping could increase. Typically, the areas more likely to be affected are those which back onto rear gardens. Appropriately deigned buffers to ancient woodland are therefore an important facet of mitigation, helping to prevent garden waste from being deposited directly into the woodland and providing an opportunity to deal with issues of colonisation by invasive species before they colonise the woodland itself.

Eutrophication (i.e. dog fouling)

- 5.40. Dog fouling is understood to contribute to nutrient enrichment of infertile habitats through defecation and urination. Dog fouling within sensitive habitats where deposition is high and concentrated can lead to a change in habitat through eutrophication.
- 5.41. A number of patterns have been identified in relation to dog fouling. Defecation will normally take place within 10 minutes of a walk⁹ from the starting point (e.g. from home if walked to site or from a car park if driven), although this often takes place within the first 2 minutes. Defecation typically occurs in close proximity to pathways and usually within 400m of the site entrance.

⁹English Nature Research Reports. 2005. Number 649. Dogs, access and nature conservation. Ken Taylor (Asken Ltd). Penny Anderson (Penny Anderson Associates).

- 5.42. Dog fouling has the potential to cause vegetation change but the magnitude of any impacts are dependent on the spatial distribution, timing and intensity of deposition. However, as noted above, notified habitats are subject to grazing which would also result in eutrophication effects, although no such adverse effect is evidenced from the favourable condition of those units.
- 5.43. Whilst dog kennels are currently present onsite, the woodlands are not understood to be used as part of recreational / exercise resources. Dog's are known to be exercised within the grasslands in the south of the site only. This is considered to be due to the lack of accessibility to the woodland from the kennel buildings and the poor accessibility within the woodlands due to the dense understorey and variable topography.
- 5.44. Horse manure has been observed along the woodland track within woodland **W1** and at the woodland edge. With the cessation of equestrian activity on site this source of fouling will be removed.
- 5.45. New residents will include dog owners, who will utilise open space to exercise their dogs. It would be expected that the majority of dog owners will make use of more easily accessible open space, such as the proposed community park rather than trying to access the woodlands for dog walking (noting the issues of terrain for example). Dog fouling could occur along the footpath / cycleway through **W1**, more likely limited to the path edges.
- 5.46. The potential effects of dog fouling can be managed through the use of dog waste bins and signage and also through the use of woodland edge planting which deters access. Species such as Bramble, Blackthorn and Hawthorn are particularly effective in this regard.

Increased predation / disturbance from pets

- 5.47. The classification of ancient woodland is linked to its historic function as a woodland, being continually wooded since at least 1600AD. The primary test therefore is against whether or not a proposal will harm the woodland itself. The presence or lack of faunal species, including protected species, is immaterial to the classification of a site as ancient woodland. Potential impacts on protected species must of course be considered in the planning process, but a separate legal framework exists to protect such species. It is however recognised that the true value (in ecological terms) of an ancient woodland lies in its biodiversity (as opposed to its age) and thus consideration has been given to potential implications for adverse effects on faunal species within the woodland.
- 5.48. An increase in cat and dog ownership can lead to increased disturbance of faunal species and also predation. Issues of disturbance are most often cited in relation to ground nesting birds, where birds are flushed off the nest while predation is most often linked to birds and small mammals.
- 5.49. Whilst pet dogs may be walked by owners, wherein an element of control is exerted, pet cats are more likely allowed to access open space (natural / semi-natural habitat) freely. Domestic cats are known to predate on a number of species, although the target species and level of predatory activity is highly variable between individuals.

- 5.50. A number of feral cats are present at the site and can be expected to engage in predatory behaviours within the site, although this is likely to be concentrated around the stable blocks where food sources attract small rodents and birds.
- 5.51. With the change in land use, it is considered that the abundance of domestic cats will increase. This will lead to a possible increase in predation of birds and small mammals. With regard to predation of Dormice, which are known from the site, it is possible this could occur (such events have been evidenced).
- 5.52. Since Dormice are arboreal in nature, effective mitigation (as accepted on numerous schemes) can be delivered through the provision of hedgerow bolster planting, dense scrub / tree groups and by ensuring good habitat connectivity. Habitat connectivity is key to limiting the need for Dormice to cross open ground (e.g. when moving across a gap in a hedgerow, or crossing from one woodland block to another to exploit a food source or disperse from a nest site).

Cumulative effects

- 5.53. Subject to the proposals coming forward, there will be a number of new residents within the site that will utilise the open space provided. Furthermore, it would be expected that other local residents will be drawn into the site, attracted to the green space amenity, for example.
- 5.54. Local residential development outside of the site is present to the north, east and south. Existing development to the south (Fareham) is separated by the M27, although a footbridge is present that connects to the site. To the east is the existing settlement of Funtley, separated by the railway line, although a road bridge crosses the railway line along Funtley Road.
- 5.55. To the north of the site is a relatively new development at Roebuck Avenue comprised of 85 dwellings (P/97/0792/MA/E) and a development to the west of Roebuck Avenue comprised of 27 dwellings (P/17/1135/OA) which is currently under construction. The proposals for the site are for up to 125 units. New residents from these new developments are considered more likely to utilise the open space within the application site due to the ease of access.
- 5.56. In Fareham the average household size (persons) is 2.4¹⁰. This would result in the development proposals supporting 300 new residents. Adjacent developments would result in 268.8 residents. Combined, this results in 568.8 residents, of which a proportion can be expected to use the open space associated with the development proposals.
- 5.57. A proportion of the existing population and some of the new residents would be expected to own pets, including dogs. Based on survey information available from the Pet Food Manufacturers Association the latest available data shows that nationally 25% of households own dogs. However, data from the south east of England region shows that 23% of households own dogs.
- 5.58. Using the regional data for dog ownership, it can be estimated that the potential number of households adjacent to and including the site which will own dogs (one or more) is 130.8.

¹⁰ 2011 Census, Office for National Statistics

- 5.59. As part of the proposals, it is intended to deliver approximately 10ha of open space, including the woodlands onsite. The woodlands themselves are not however intended to be accessible. Access as proposed, is currently related to an existing (recently upgraded) access track running through **W1** (ancient woodland) which serves as part of a cycle track and footpath linking Funtley north with Fareham.
- 5.60. It is considered that the majority of dog walkers (including other local residents) are more likely to utilise the more open expanse of the community park. However, it would be expected that new and existing residents of the area will use the existing track through W1 at least on an occasional basis, either as part of a circular walk within the application site, or as a route to / from Fareham.

Proposed Mitigation

- 5.61. Measures are set out below in respect of the potential effects outlined above. These measures are considered appropriate and proportionate, in view of the baseline situation, in delivering long term protection to the ancient woodland.
- 5.62. The primary mechanism for avoiding impacts to the ancient woodland onsite involves to creation of a 15m buffer zone between the development and the ancient woodland boundary as delineated on the ancient woodland inventory. This buffer is in line with the Standing Advice produced by Natural England in respect of avoiding damage to the root protection area associated with the woodland.
- 5.63. As has been described above (paragraphs 4.18 to 4.20) in relation to ancient woodland inventory boundary, Ecology Solutions considered that the boundary is not an accurate representation of the true ancient woodland edge.
- 5.64. It is also important to note that a significant area around the north western corner has been subject to excavation in order to create a level platform around the building present near the woodland edge. This will have necessitated the removal of soils present within the area, thereby removing the potential for any restoration of the ancient woodland.
- 5.65. Indeed, the true woodland edge is set back as far as 22m from the boundary shown on the ancient woodland inventory. As such, in combination with the proposed 15m buffer zone, the distance between the development and the true woodland edge ranges from 15m up to 37m, more than double the minimum standard prescribed by Natural England.
- 5.66. The 15m buffer is set on the basis of preventing any potential damage to the root system of the ancient woodland, although greater buffers may be provided where additional effects are considered to arise that require this (such as air quality impacts from heavy road traffic). In this instance, no other potential effects have been identified that justify a greater buffer being required. However, as described above, buffer areas greater than 15m are provided from the development in some instances in any event.
- 5.67. Given the limited scale of the development within the wider site, no buffers are required along the south western and southern boundaries. These areas will form part of a large provision of open space, that will also deliver significant ecological benefits over and above the current situation.

- 5.68. As part of the mitigation package, and again in line with Natural England's Standing Advice, this buffer area will be utilised to deliver new areas of green space, including new woodland planting as well as dense scrub.
- 5.69. Furthermore, it is proposed that the ancient woodland will be linked with the other retained woodlands (**W3** and **W4**) with the planting of new wooded links between them. This will promote greater habitat connectivity through the site and reduce the ecological fragility of the smaller woodland blocks.
- 5.70. In addition to creating a new woodland links though the site, the vegetation present at the application site boundaries will also be bolster planted to strengthen the habitats present within these areas.
- 5.71. To facilitate the development of the buffer areas species such as Blackthorn will be used which are known to be quick growing and capable of forming a dense woody barrier due to abundant suckering growth. Evergreen species such as Holly will also be used to provide year-round screening. Furthermore, a selection of more mature specimens will be including within the planting schedule to further advance the establishment of these habitats.
- 5.72. To prevent littering, fly tipping and trampling of vegetation, the ancient woodland will remain adequately fenced at its boundaries and separated from rear gardens that back on to adjacent buffer zones. General access will be prevented / restricted by bolster planting of thorny / prickly shrub species at the woodland edges.
- 5.73. Access will be controlled, through the maintenance of the existing footpath / cycle track that direct users though the ancient woodland and into other habitats within the open space areas. It is considered that the existing footpath / cycle track will help control how local residents choose to access the open space provided and prevent the creation of other pathways through the woodland, notwithstanding that other opportunities area limited by the site's topography.
- 5.74. The existing footpath / cycle track will be fenced with post and rail fencing, with dense shrub planting installed adjacent to it to prevent deviation from the path. Planting should include species such as Blackthorn, Holly, Butchers Broom and Bramble that will provide year-round barriers to access that are dense forming at ground level and above.
- 5.75. Dead hedging and new shrub / tree planting will also be provided within the woodlands to deter activities such as mountain biking. It is suggested that this is subject to be reactive management where signs of use are first identified before measures are implemented.
- 5.76. Waste bins will be provided through the open space areas to promote the anti-littering behaviours and signage will be erected to inform users of the sensitivity of the ancient woodland to recreational use.
- 5.77. Future management will include monitoring of the creation of permissive paths and ensure that they are closed, limited or redirected to avoid or minimise potential impacts. All fencing and barrier vegetation will be monitored, maintained, and repaired on a regular basis.

- 5.78. It is considered that the detailed design of the mitigation measures proposed above could be subject to a suitably worded planning condition.

6. SUMMARY AND CONCLUSIONS

- 6.1. Ecology Solutions was originally instructed by Reside Developments Ltd. to undertake a Phase 1 walkover survey of Land South of Funtley Road, Funtley (the “application site”) in May 2016 in order to determine potential ecological constraints associated with the site. Subsequent to this, a series of detailed surveys were undertaken in order to inform a planning application. Planning permission was subsequently granted for that scheme by Fareham Borough Council. Ecology Solutions was then commissioned to undertake additional survey and assessment work in 2020 pursuant to a new planning application.
- 6.2. Following the submission of the 2020 planning application, Fareham Borough Council (FBC) / Hampshire County Council (HCC) requested additional information regarding potential impacts of the development proposals on Great Beamond Coppice Site of Interest to Nature Conservation (SINC) / ancient woodland.
- 6.3. A specific survey of the condition of all the woodlands present onsite and was undertaken in 2021, the aim of the survey was to assess the existing pressures on the woodlands onsite, and more specifically those relevant to the ancient woodland. This survey found that the very little, if any regular recreation takes place within the woodlands currently.
- 6.4. Furthermore, this assessment considers the potential for such pressures to arise as part of the proposed development and nearby development accessing the site. The accessibility of the woodlands was assessed with specific attention paid to any existing footpath / cycle track, potential access points, the topography of the site, hydrology and vegetation structure.
- 6.5. All potential pathways for significant effects to arise on the ancient woodland as a result of the proposal have been examined. Where necessary mitigation / avoidance measures, have been outlined.
- 6.6. The primary element of mitigation relates to the provision of a minimum 15m buffer between the development and the ancient woodland inventory boundary. It should be noted that Ecology Solutions consider that the true woodland boundary (as evidenced from the surveys undertaken) is set further back from the ancient woodland inventory boundary in the key location to the north west of the woodland. In fact, a buffer area of up to 37m is provided in some areas due to this mapping error. This is far in excess of what Natural England consider the minimum buffer required within their Standing Advice and far in excess of what is considered necessary given the potential impacts that have been assessed.
- 6.7. It is considered that the detailed design of the proposed mitigation package could be subject to a suitably worded planning condition.
- 6.8. It is considered that (having adopted a precautionary stance to the assessment) the provision of the mitigation / avoidance measures described within this document would give added security to the conclusion that the proposed development would not give rise to harm to the features of acknowledged importance.

PLANS

PLAN ECO1

Woodland Survey Results



-  SITE BOUNDARY
-  WET AREAS
-  STEEP GRADIENTS
-  RETAINING WALL
-  LITTER
-  GREEN WASTE / MANURE
-  FIRE SETTING



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7601: LAND SOUTH OF FUNTLEY ROAD, FUNTLEY

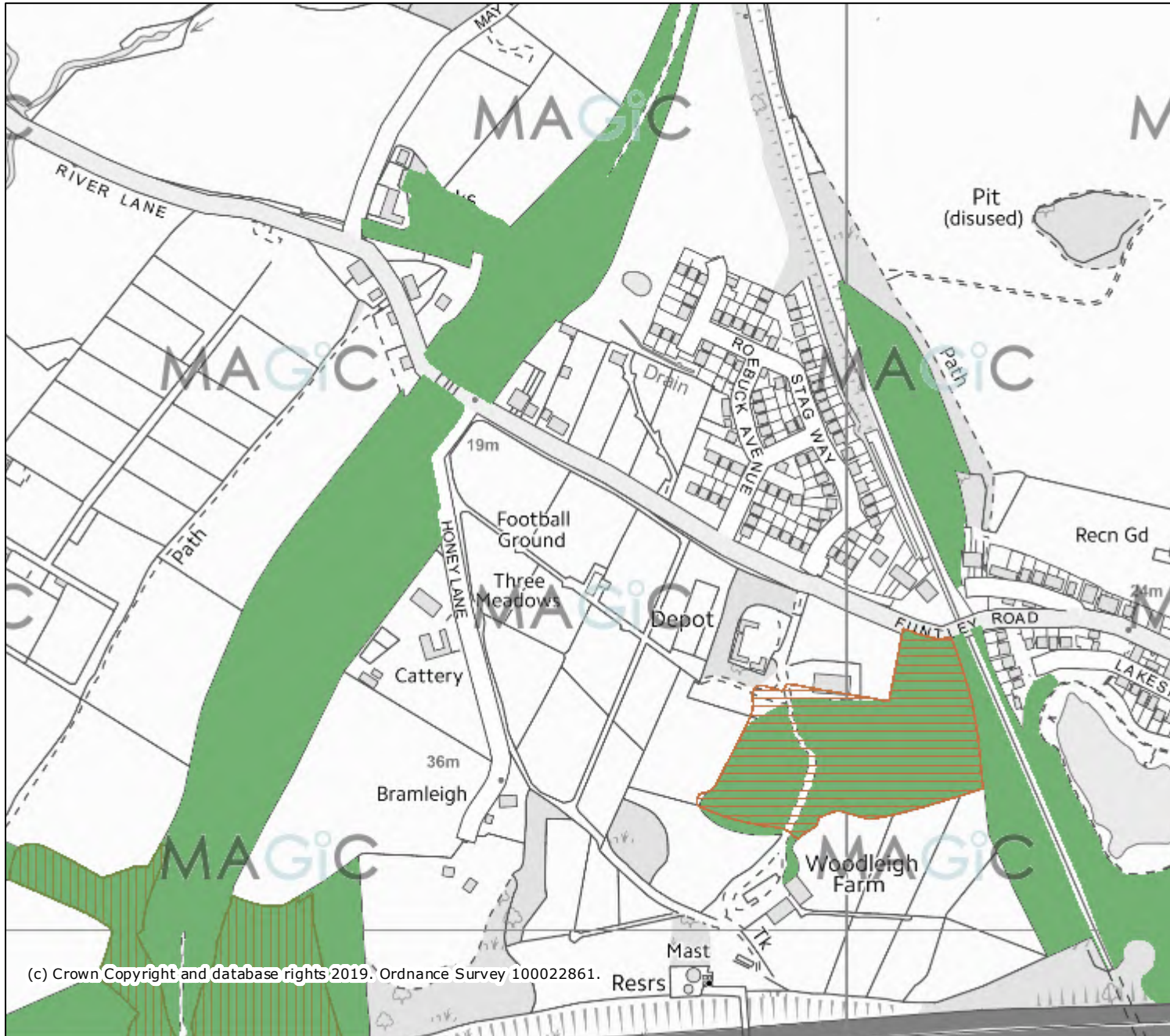
PLAN ECO2: WOODLAND SURVEY RESULTS

Rev: A
Feb 2021





APPENDICES

APPENDIX 1

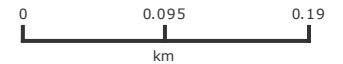
Information obtained from MAGIC



Legend

-  Local Nature Reserves (England)
- Ancient Woodland (England)**
 -  Ancient and Semi-Natural Woodland
 -  Ancient Replanted Woodland
 -  Priority Habitat Inventory - Deciduous Woodland (England)

Projection = OSGB36
 xmin = 454500
 ymin = 107700
 xmax = 457000
 ymax = 109000



Map produced by MAGiC on 19 December, 2019.
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APPENDIX 2

Photographs

PHOTOGRAPH 1:



PHOTOGRAPH 2:



PHOTOGRAPH 3:



PHOTOGRAPH 4:



PHOTOGRAPH 5:



PHOTOGRAPH 6:



PHOTOGRAPH 7:



PHOTOGRAPH 8:



PHOTOGRAPH 9:



PHOTOGRAPH 10:



PHOTOGRAPH 11:





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