

Land off Pitsford Road, Manchester

Ecological Addendum

140311/FO/2024

2024



RACHEL
HACKING
ECOLOGY

Client	Bellway Homes Ltd (Manchester)
Project Title	Land off Pitsford Road, Manchester
Project Reference	RHE.3991.04
Project Leader	Ben Crossthwaite
Contact Details	ben@rachelhackingecology.co.uk

	Name	Position	Date
Author	Ben Crossthwaite	Senior Ecologist	04/10/2024
Reviewer	Dr Rachel Hacking	Principal Ecologist	04/10/2024
Revision			



RACHEL
HACKING
ECOLOGY

The Stables, Paradise Wharf, Ducie Street, Manchester, M1

2JN

www.rachelhackingecology.co.uk

mail@rachelhackingecology.co.uk



Report Contents

1. Introduction	4
2. Methods	6
3. Results	8
4. Assessment	10
5. Recommendations	12
Appendix 1: Planning Policy & Legislation	13
Appendix 2: Habitat Description	16
Appendix 3 – Woodland Species List	18

1. Introduction

1.1 Project Brief

- 1.1.1 Rachel Hacking Ecology Limited (RHE) was commissioned in 2024 by Bellway Homes Limited (Manchester) to carry out a Botanical Survey and Night-time Bat Walkover Surveys at land off Pitsford Road, Manchester. The site is located at O.S. grid reference: SD 86161 00165 (see Figure 1).

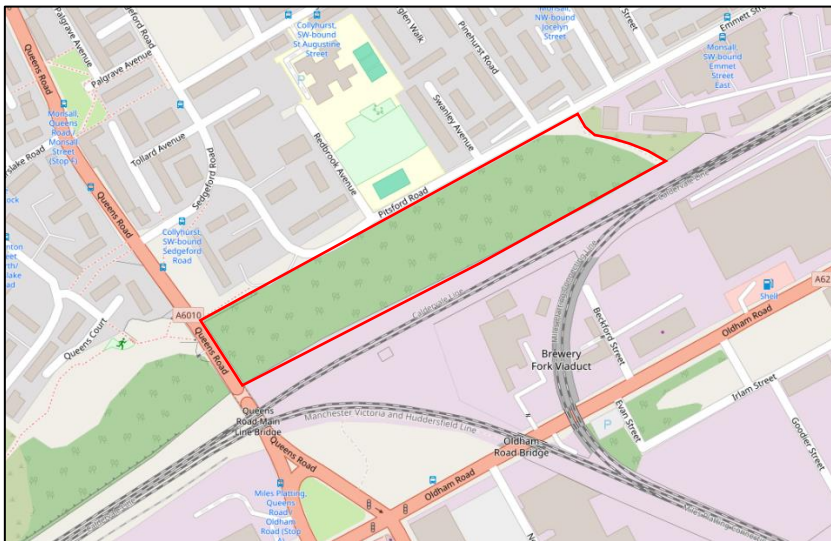


Figure 1. Map showing the location of the trees © Open Street Maps

- 1.1.2 The site is the subject of a planning application for the erection of a residential development (Use Class C3a) with associated landscaping, boundary treatment, infrastructure and ancillary works (planning reference: 140311/FO/2024). As part of the application, RHE undertook ecological surveys and a Biodiversity Net Gain assessment. The commission of the botanical and bat surveys follows communications with Greater Manchester Ecology Unit (GMEU) via the Principal Planning Manager, Jennifer Atkinson, at Manchester City Council, in regards to the ecological constraints on the site. The comments by GMEU are summarised below:

- “We would advise that an assessment of the layout of the scheme is provided with regards to bats, detailing how flight lines for bats can be maintained across the site. If this can’t be demonstrated then the application needs to be supported by bat activity surveys to demonstrate how bats are using the site, and an impact assessment of the scheme on bats provided and adequate mitigation provided”.
- “It is recommended that further information be requested to satisfy the above points, which includes an updated woodland survey undertaken during the optimal survey season for woodland and ground flora using UKHab methodology, in order to provide further

justification as to the presence or absence of priority habitat within the application site. An updated condition assessment undertaken within the optimal survey season should also be provided, and a consideration of the strategic significance should the woodland be re-categorised”.

1.2 Scope of Work

- 1.2.1 The Client commissioned Rachel Hacking Ecology to carry out the following works to address the comments made by GMEU:
- A targeted botanical survey of the woodland and an updated condition assessment.
 - Two night-time bat walkover surveys of the site.

1.3 Site Visit Information

Surveyor Details

- 1.3.1 Jasmin West (Junior Ecologist) undertook the botanical survey on 8th August 2024. Jasmin is able to proficiently identify woodland flora. This was overseen by Dr Rachel Hacking (Principal Ecologist). Rachel has 20 years of professional experience and has carried out a wide variety botanical surveys and biodiversity net gain (BNG) assessments throughout England.
- 1.3.2 Night-time bat walkover surveys were carried out by Ben Crossthwaite (Senior Ecologist) and Jasmin West (Junior Ecologist). Both surveyors are proficient at, and fully trained in, bat activity surveys.

Weather

- 1.3.3 Further details of weather conditions are provided in the methods section of the report.

2. Methods

2.1 Field Surveys

Botanical Survey

- 2.1.1 In accordance with UK Habitat Classification system¹ the site was walked over, and the comprising species assemblages were listed, habitats and features of ecological interest were mapped and described.

Night-time Bat Walkover Surveys

- 2.1.2 Night-time bat walkover surveys were undertaken following the Bat Conservation Trust (2023) guidelines². Survey visits comprised two surveyors walking a pre-determined transect, recording where bats were encountered. Information recorded included location, species of bats, number of bats, type of activity and level of activity. Surveyors used Echometer Touch 2 detectors and Nightfox Whisker Night Vision Binoculars. Table 1 provides a summary of the Meta-data. Figure 2 shows the route of the bat transects.

Table 1. Bat Transect Survey Meta-data				
Surveyors	Date	Start and Finish Time	Sunset	Weather
BC, JW	29/08/2024	19:50 to 21:50	20:07	16-12 ⁰ C, limited cloud cover, light breeze.
BC, JW	27/09/2024	18:45 to 20:55	19:07	11-9 ⁰ C, overcast, light winds

Key: LRM – Ben Crossthwaite and Jasmin West

¹ Butcher, B., Carey, P., et al. (2020). UK Habitat Classification – Habitat Definitions V1.1. at <http://UKhab.org>

² Collins, J. (2023) *Bat Surveys – Good Practice Guidelines* (4th Edition). Bat Conservation Trust, London.

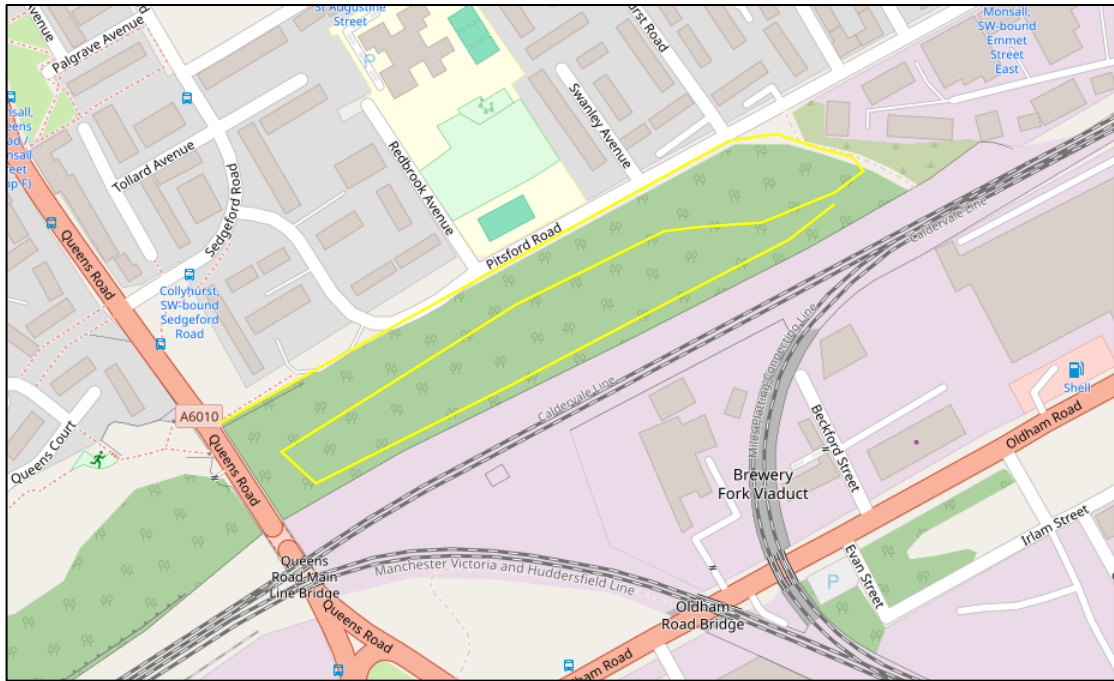


Figure 2. Bat Transect Route (Yellow Line)

2.2 Mitigation Hierarchy

2.2.1 Mitigation measures should be embedded within the masterplan design and planning application process. Measures during the construction phases should be included in a Construction Environmental Management Plan: Biodiversity (CEMP). This process from proposal to implementation needs to consider the 'mitigation hierarchy' of avoid, reduce, compensate, and enhance:

- Aim to avoid negative effects through the design process.
- Mitigate if negative effects cannot be avoided.
- Use compensation measures to offset residual impacts.
- Identify and implement opportunities to enhance biodiversity.

3. Results

3.1 Survey Constraints

- 3.1.1 Field survey results are valid for a limited duration and no investigation can provide a complete description and characterisation of a site. The composition of habitats and species can change depending on environmental variables and the mobility of species, so the results of a study become less reliable over time. In some cases, surveys that are 3 years old may be acceptable for a project assuming that habitats have not significantly changed in the intervening period, but for protected species it is likely that survey data will need to be no more than 18 months old.
- 3.1.2 The use of static bat detectors was considered. However, this was not deemed safe enough to undertake.

3.2 Woodland Botanical Survey

- 3.2.1 The full list of species found, along with their abundance, can be found in Appendix 3. The woodland is species-poor, with the ground-flora dominated by Bramble *Rubus fruticosus* agg. No ancient woodland indicator species were found, nor a typical woodland ground-flora. There is a very poor understorey, with only scattered shrubs such as Hawthorn *Crataegus monogyna*.
- 3.2.2 The botanical assessment confirms the BNG Condition of the woodland habitat.

3.3 Night-time Bat Walkover

- 3.3.1 Night-time Bat Walkovers were carried out on the 29th August and the 27th September 2024. Table 2 provides a summary of the species and registrations that were recorded during the surveys.

Table 2. Summary of Bat Transect Data				
Date	Species and Registrations		Total	Location
	Pp	Ppy		
29/08/2024	3	1	4	1,3
27/09/2024	2	0	2	2.3
Total	5	1	6	
Proportion (%)	83.35%	16.67%		

Key: Pp = Common Pipistrelle *Pipistrellus pipistrellus*, Ppy = Soprano Pipistrelle *Pipistrellus pygmaeus*. See Figure 3 below for registration locations.

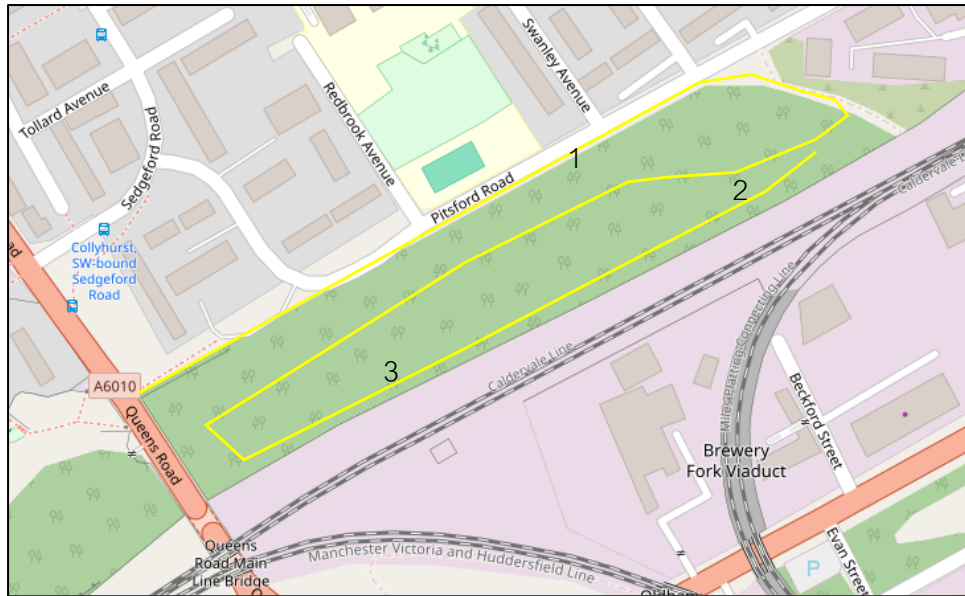


Figure 3 showing the registration locations

3.4 Habitat Appraisal

- 3.4.1 The site is located in a metropolitan area with limited bat foraging and commuting habitat in the wider landscape. The broadleaved woodland on site, provides good bat foraging opportunities.

4. Assessment

Broadleaved Woodland

- 4.1.1 The woodland on site is included in the Priority Habitat Inventory (Deciduous Woodland – unique ID PHID38617370_040016552).
- 4.1.2 The woodland is dominated by a canopy layer, as the trees are all of a similar age, and the ground layer is dominated by Bramble.
- 4.1.3 The site is historically part of the railway sidings. It is suspected the substrate comprises clinker providing acidic soil conditions.
- 4.1.4 The woodland has been considered against the priority habitat descriptions under the Lowland Mixed Deciduous Woodland (wf1) and the w1f7 sub-category of wf1, Other Lowland Mixed Deciduous Woodland. The UK Biodiversity Action Plan, Priority Habitat Description of Lowland Mix Deciduous Woodland and also the UK Habitat Classification habitat definition can be found in Appendix 2.
- 4.1.5 The woodland shows characteristics of NVC W16 woodland (*Quercus* spp.-*Betula* spp.-*Deschampsia flexuosa* woodland), however at a minimal/poor level given the woodlands relatively juvenile age.
- 4.1.6 It is considered the woodland is to remain categorised within the BNG assessment as other broadleaved woodland. There is a chance the woodland could achieve more recognisable features and species assemblages associated with W16 woodland in time. However, at the time of the assessment, the woodland shows only minor features associated with W16 and wf1 and is not indicative of these priority woodland descriptions. Therefore, the woodland should be categorised as w1g other broadleaved woodland in the metric, with a habitat unit baseline score within the BNG assessment of 11.34 habitat units.

Bats

- 4.1.7 The night-time bat walkovers generated a total of 6 registrations of two species. The number of registration were low. This may reflect the metropolitan environment the woodland is located.
- 4.1.8 Given the woodlands location, it is considered the results of the two surveys indicate a likely level of bat activity throughout the summer season.
- 4.1.9 Most of the registrations were associated with woodland edge habitat, particularly the southern boundary adjacent to the railway. This is likely to be due to the lower level of artificial light and the presence of more favourable habitat associated with the railway and sidings.
- 4.1.10 The woodland is considered to offer low suitability for bats. However, may be important to the local bat population due to the relatively scarcity of better habitats in the locality.

4.1.11 There will be total loss of the woodland habitat and additional artificial light levels are most likely to increase. Bats using the woodland and adjacent railway habitat for foraging and dispersal activity are likely to have an adverse impact at local level if not mitigated.

5. Recommendations

5.1 Mitigation Measures

- 5.1.1 Protection of ecological features (habitats and species) and control of invasive species during the construction phase will be described in a Construction Environmental Management Plan (CEMP). Mitigation measures to protect, maintain and enhance ecological features and to control invasive species during the operational phase of development will be described in a Biodiversity Management Plan (BMP). Management Plans will contain Operational Aims and Objectives, Rationale for management, Prescriptions and schedules detailing the timing and responsibility for delivering the prescriptions. The BMP will also contain details of monitoring to track the progress of habitat protection, creation and enhancement measures. It is anticipated that the CEMP and BMP will be provided as a planning condition in advance of the commencement of the proposed development.

BNG Offsetting

- 5.1.2 As per the Technical Note, BNG – Rachel Hacking Ecology, 2024, discussions between Bellway Homes and Manchester City Council have identified two locations that could be used for offsetting the onsite loss via woodland planting.
- 5.1.3 The site is in net loss in habitat units, with 5.35 habitat units required to provide 10% net gain. However, the Trading Rules have not been satisfied within the metric, as the proposed habitats are of lower ecological value and/or less abundant than the existing woodland habitat, resulting in the actual BNG units deficit of 6.77 units.
- 5.1.4 Offsetting strategies will have to be confirmed predetermination of the application.

Bats

- 5.1.5 The loss of woodland is to be mitigated on site where possible. This is to include peripheral, linear planting to reinstate foraging and commuting habitat across the site.
- 5.1.6 Install bat roosting bricks³ into the fabric of buildings, preferably high up on gable ends.
- 5.1.7 Make use of directional street lighting, avoid illumination of the boundary habitats, particularly the southern site boundary, and minimise Lux levels on all street lighting.

³ <https://bat-surveyor.co.uk/bat-bricks/>

Appendix 1: Planning Policy & Legislation

National Policy

The National Planning Policy Framework (NPPF 2021) describes the Government's planning policy for England and how it should be applied. Within this framework, the requirements in relation to biodiversity are included within several policies. The two most relevant to individual planning decisions are Paragraphs 174 and 180, shown below:

- 174. 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) recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land, and of trees and woodland;
 - c) maintaining the character of the undeveloped coast, while improving public access to it where appropriate;
 - 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; etc...
- 180. 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) development on land within or outside a Site of Special Scientific Interest, and which is likely to have an adverse effect on it (either individually or in combination with other developments), should not normally be permitted. The only exception is where the benefits of the development in the location proposed clearly outweigh both its likely impact on the features of the site that make it of special scientific interest, and any broader impacts on the national network of Sites of Special Scientific Interest;
 - 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 improve biodiversity in and around developments should be integrated as part of their design, especially where this can secure measurable net gains for biodiversity or enhance public access to nature where this is appropriate.

Legislation

The Wildlife and Countryside Act 1981 (as amended by the CROW Act 2000) includes the notification and confirmation of Sites of Special Scientific Interest (SSSIs). SSSIs can be notified for their floral, faunal, geological, or physiographical features. Protection against damaging operations and management of SSSIs is also included within the Act. Impact Risk Zones (IRZs) are zones around an SSSI account for the particular sensitivities of the features for which it is notified and identify development proposal which could have adverse impacts.

The Wildlife and Countryside Act 1981 (as amended by the CROW Act 2000) protects native animals, plants, and habitats. Under the Act it is an offence to intentionally kill, injure or take any wild animal listed on Schedule 5 and it is an offence to interfere with places used for shelter or protection, or intentionally disturb animals occupying such places. The Act prohibits picking, uprooting or destroy any wild plant (or any attached seed or spore) listed in Schedule 8.

European Protected Species (EPS) such as bats, Hazel Dormouse, Otter, Natterjack Toad, Smooth Snake, Sand Lizard and Great Crested Newt are protected by the Wildlife and Countryside Act 1981 (as amended by the CROW Act 2000) and the Conservation of Habitats and Species Regulations 2017. The Acts make it an offence to:

- a) Deliberately capture, injure, or kill an EPS;
- b) Deliberately impair an EPS's ability to survive, breed, reproduce, rear or nurture young; to hibernate or migrate; or significantly affect the local distribution or abundance of the EPS.
- c) Possess or control live or dead EPS or any part of, or anything derived from a EPS;
- d) Damage or destroy a breeding site or resting place of an EPS;
- e) Intentionally or recklessly obstruct access to any place that is used for shelter or protection by an EPS;
- f) Intentionally or recklessly disturb a structure or place that it uses for shelter or protection that is occupied by an EPS.

All common herptiles are protected under the Wildlife and Countryside Act 1981 (as amended by the CROW Act 2000). Grass Snake, Slow Worm, Common Lizard, Adder are protected against intentional killing or injury.

Common Frog, Common Toad, Smooth Newt, and Palmate Newt is protected against sale. In addition, all British reptiles, Common Toad, and Great Crested Newt are listed as Species of Principal Importance.

All nesting birds are protected under the Wildlife and Countryside Act 1981 (as amended). It is an offence to intentionally kill, injure or take any wild bird or take, damage, or destroy its nest whilst in use or being built, or take or destroy its eggs. It is an offence to intentionally or recklessly disturb a species listed on Schedule 1 of the Act while they are nest building or at or near a nest with eggs or young, or to disturb the dependent young.

The Protection of Badgers Act 1992 makes it an offence to wilfully, or to attempt to kill, injure, take, possess, or cruelly ill-treat a Badger, or intentionally or recklessly interfere with a sett. Interference of a sett includes disturbing badgers during occupation of a sett, or damaging or destroying a sett, or obstructing access to the sett.

Section 40 of the Natural Environment and Rural Communities (NERC) Act 2006 places a duty on every public authority to have regard to conserving biodiversity. Section 41 of the same Act requires the Secretary of State to publish a list of the living organisms and types of habitats that are of 'Principal Importance' for the purpose of conserving biodiversity. The Secretary of State must take steps, as appear reasonably practicable, to further the conservation of those living organisms and habitats in any list published under this section. The list of species and habitats of principal importance currently includes 943 species and 56 habitats. These are the species and habitats found in England which are regarded as conservation priorities under the UK Post-2010 Biodiversity Framework

The Hedgerows Regulations 1997 protect 'important' hedgerows from destruction or damage. A hedgerow is 'important' if it (a) has existed for 30 years or more; and (b) satisfies at least one of the criteria listed in Part II of Schedule 1 of the Regulations. Under the Regulations, it is against the law to remove or destroy 'important' hedgerows unless permitted by the local planning authority.

Appendix 2: Habitat Description

UK Biodiversity Action Plan

Lowland mixed deciduous woodland includes woodland growing on the full range of soil conditions, from very acidic to base-rich, and takes in most semi-natural woodland in southern and eastern England, and in parts of lowland Wales and Scotland. It thus complements the ranges of upland oak and upland ash types. It occurs largely within enclosed landscapes, usually on sites with well-defined boundaries, at relatively low altitudes, although altitude is not a defining feature. Many are ancient woods and they include the classic examples of ancient woodland studied by Rackham (1980) and Peterken (1981) in East Anglia and the East Midlands. The woods tend to be small, less than 20 ha. Often there is evidence of past coppicing, particularly on moderately acid to base-rich soils; on very acid sands the type may be represented by former wood-pastures of oak and birch.

There is great variety in the species composition of the canopy layer and the ground flora, and this is reflected in the range of associated NVC and Stand Types. *Quercus robur* is generally the commoner oak (although *Quercus petraea* may be abundant locally) and may occur with virtually all combinations of other locally native tree species.

In terms of the National Vegetation Classification the bulk of this type falls into W8 (mainly subcommunities a - c in ancient or recent woods; in the lowlands W8d mostly occurs in secondary woodland) and W10 (subcommunities a to d) with lesser amounts of W16 (mainly W16a). Locally, it may form a mosaic with other types, including patches of beech woodland, small wet areas, and types more commonly found in western Britain. Rides and edges may grade into grassland and scrub types.

The canopy variations as represented by the Stand Type system include most of the field maple (2), lime (4, 5), suckering elm (10) and hornbeam (9) Stand Groups, and substantial proportions of the wych elm (1), ash (3) and oak (6) Stand Groups. More rarely, birch (12) and some alder stands (7C) may also occur. These may require separate management treatments.

There are no precise data on the total extent of lowland mixed deciduous woodland in the UK, but in the late 1980s the Nature Conservancy Council estimated the total extent of this type to be about 250,000ha. There is however no doubt that the area of this priority type on ancient woodland sites has declined in area by clearance, overgrazing and replanting with non-native species, by about 30-40% over the last 50 years.

UK Habitat Classification

W1f - Lowland Mixed Deciduous Woodland

Lowland mixed deciduous woodland includes woodland growing on the full range of soil conditions, from very acidic to base-rich: occurs largely within enclosed landscapes, usually on sites with well-defined boundaries, at relatively low altitudes, although altitude is not a defining feature.

Includes most established semi-natural woodland in southern and eastern England, and in parts of lowland Wales and Scotland. Many are ancient woods, and they include classic examples of ancient woodland in East Anglia and the East Midlands.

There is great variety in the species composition of the canopy layer and the ground flora. *Quercus robur* is generally the commoner oak (although *Quercus petraea* may be abundant locally) and may occur with virtually all combinations of other locally native tree species.

W1f7 – Other Lowland Mixed Deciduous Woodland

Lowland mixed deciduous woodland that does not meet the definition of w1f5 or w1f6.

Likely to include woodland that is self-sown and/or recently established in either urban or rural situations.

Appendix 3 – Woodland Species List

Species	Abundance (DAFOR)
Bramble <i>Rubus fruticosus</i> agg.	LD
Ivy <i>Hedera helix</i>	A
Creeping Buttercup <i>Ranunculus repens</i>	O
Dandelion <i>Taraxacum officinale</i> agg.	R
Common Nettle <i>Urtica dioica</i>	O
Perennial Rye-grass <i>Lolium perenne</i>	O
Herb-Robert <i>Geranium robertianum</i>	O
Wild Strawberry <i>Fragaria vesca</i>	O
Bracken <i>Pteridium aquilinum</i>	R
Holly <i>Ilex aquifolium</i>	R
Hedge Bindweed <i>Calystegia sepium</i>	LF
Broad-leaved Dock <i>Rumex obtusifolius</i>	O
Greater Plantain <i>Plantago major</i>	R
Great Willowherb <i>Epilobium hirsutum</i>	O
Dog Rose <i>Rosa canina</i> agg.	LF
Common Ragwort <i>Jacobaea vulgaris</i>	O
Field Horsetail <i>Equisetum arvense</i>	R
Yorkshire Fog <i>Holcus lanatus</i>	O
Pedunculate Oak <i>Quercus robur</i>	O
Rowan <i>Sorbus aucuparia</i>	O
Japanese Knotweed <i>Reynoutria japonica</i>	LA
Silver Birch <i>Betula pendula</i>	LA
Hazel <i>Corylus avellana</i>	O
Hawthorn <i>Crataegus monogyna</i>	O
Cleavers <i>Galium aparine</i>	O
Ash <i>Fraxinus excelsior</i>	O
Wood Avens <i>Geum urbanum</i>	O
Creeping Bent <i>Agrostis stolonifera</i>	LF