APPENDIX 7.1
ECOLOGICAL APPRAISAL

Land at Downlands Farm, Uckfield

Baseline Ecological Appraisal

June 2022

Quality Management	
Client:	Gleeson Land
Project:	Downlands Farm, Uckfield
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Introduction

1.1 Background and Proposals

1.1.1 Aspect Ecology was commissioned by Gleeson Land in August 2019 to undertake an Ecological Appraisal in respect of proposed development of land at Downlands Farm, Uckfield, centred at grid reference TQ 4661 2223 (see Plan 5719/ECO1).

1.1.2 It is intended to submit an outline planning application may be submitted for the residential development, and an associated area of Sustainable Alternative Natural Greenspace (SANG).

1.2 Site Overview

1.2.1 The site occupies land between Snatt's Road, Uckfield, in the east, and the A22 Uckfield bypass to the west and comprises a mixture of grassland and broad swathes of deciduous woodland. Several minor tributaries of the Shortbridge Stream run through the site. There are also several linear features in the form of mature tree lines and a number of ponds within a woodland setting.

1.2.2 The [redacted] Wood and Pay[redacted]ttered rural dwe[redacted]orming the urb[redacted]e managed by [redacted]mediately adja[redacted]

1.2.3 In g[redacted] of the site larg[redacted]t and Semi-Nat[redacted]ment at the wes[redacted]ks Road, to the[redacted] Maresfield, Cooper's Green and Five Ash Down.

1.2.4 Residential development is proposed within one large agricultural fields, with a further agricultural field being used for the creation of the SANG, whilst a new vehicular access and secondary emergency access will created from the A22.

1.3 Purpose of the Report

1.3.1 This report documents the methods and findings of the baseline ecology surveys and desktop study carried out in order to establish the existing ecological interest of the site, and subsequently provides an appraisal of the likely ecological effects of the proposals. The importance of the habitats and species present is evaluated. Where necessary, avoidance, mitigation and compensation measures are proposed so as to safeguard any significant existing ecological interest within the site and where appropriate, opportunities for ecological enhancement are identified with reference to national conservation priorities and local Biodiversity Action Plans (BAPs).

2 Methodology

2.1 Desktop Study

2.1.1 In order to compile background information on the site and its immediate Sussex Biological Records Centre (SxBRC) were contacted, with data requested on the basis of a search radius of 2km:

2.1.2 Where information has been received from the above organisation(s) this is reproduced at Annex 5719/3 and on Plan 5719/ECO2, where appropriate.

2.1.3 Information on statutory designations was obtained from the online Multi-Agency Geographic Information for the Countryside (MAGIC) database, which utilises data provided by Natural England, with an extended search radius (25km). In addition, the MAGIC database was searched to identify the known presence of any Priority Habitats within or adjacent the site. Relevant information is reproduced at Annex 5719/3 and on Plan 5719/ECO2, where appropriate.

2.1.4 In addition, the Woodland Trust database was searched for any records of ancient, veteran or notable trees within or adjacent to the site.

2.2 Habitat Survey

Pha

2.2.1 The cal value of the abitats and ecological features present the south-eas

2.2.2 The [1], whereby the ment of the species composition of each habitat. This technique provides an inventory of the basic habitat types present and allows identification of areas of greater potential which require further survey. Any such areas identified can then be examined in more detail through Phase 2 surveys. This method was extended, in line with the Guidelines for Preliminary Ecological Appraisal[2] to record details on the actual or potential presence of any notable or protected species or habitats.

2.2.3 Using the above method, the site was classified into areas of similar botanical community types, with a representative species list compiled for each habitat identified. The nomenclature used for plant species is based on the Botanical Society for the British Isles (BSBI) Checklist.

Woodland Surveys

2.2.4 All woodland areas were subject to detailed botanical survey during May and June 2020. For each woodland compartment a species list was compiled of vascular plants, with particular reference being made to the presence of ancient woodland indicator species (AWI) including ancient woodland vascular plants (AWVPs). The diversity of AWVPs is a

[1] Joint Nature Conservation Committee (2010, as amended) *'Handbook for Phase 1 habitat survey: A technique for environmental audit.'*

[2] Chartered Institute for Ecology and Environmental Management (CIEEM) (2013) '*Guidelines for Preliminary Ecological Appraisal.*'

recognised approach to determining woodland quality, as well as providing secondary evidence in terms of an indication of the likely 'ancientness' of woodland. The survey technique was informed by a range of guidance methodologies including Glaves et. al. 2009[3].

2.2.5 A separate woodland botanical survey was carried out of Fir Tree Grove during April 2022, and the results of this are presented in a separate Technical Note (Sylvan Technical Note TN05 – Fir Tree Grove – Botanical Survey of Woodland and Proposed Boardwalk Alignment), which is presented as Appendix 7.1 of the Environmental Statement.

Phase 2 Botanical Surveys

2.2.6 Areas of likely elevated botanical interest identified during the Phase 1 Habitat survey were subject to further targeted botanical survey. One such area of grassland, in the eastern part of the site, adjacent to Snatts Road, was identified as having a moderately species-rich sward was subject to detailed botanical survey using the National Vegetation Classification (NVC) methodology4 alongside survey methodologies provided in the Higher Level Stewardship (HLS) Farm Environment Plan Handbook5.

Lower Plants – Sandstone Outcrops

2.2.7 San[redacted]munities of bry[redacted]ose at Lake Wo[redacted]es of lower pla[redacted]nities at Fir Tre[redacted]2.

2.3 Faunal Surveys

2.3.1 Ger[redacted] during the cou[redacted]e potential pre[redacted]as given to bat[redacted]

Bats[6]

Visual Inspection Surveys

2.3.2 **Buildings**. Buildings within the site were subject to specific internal and external inspection surveys using ladders, torches and binoculars where necessary in May 2019.

2.3.3 During the external inspections, particular attention was given to any potential roost features or access points, such as broken or lifted roof tiles, lifted lead flashing, soffit boxes, weatherboarding, hanging tiles, etc. and for any external signs of use by bats such as accumulations of bat droppings or staining. Binoculars were used to inspect any inaccessible areas more closely where appropriate.

2.3.4 During the internal inspections, evidence for the presence of bats was searched for with particular attention paid to any loft voids and relevant potential roost features and

[3] Glaves et al. (2009). Field Surveys for Ancient Woodlands: Issues and Approaches. A report to the Woodland Trust.
[4] Rodwell, J.S. (2006) *NVC Users' Handbook*, JNCC, Peterborough.
[5] Natural England. *Higher Level Stewardship Farm Environment Plan (FEP) Manual Technical guidance on the completion of the FEP and identification, condition assessment and recording of HLS FEP features Third Edition – March 2010*
[6] Surveys based on: English Nature (2004) '*Bat Mitigation Guidelines'* and Collins, J. (ed.) (2016) '*Bat Surveys for Professional Ecologists: Good Practice Guidelines* (3rd edn).' Bat Conservation Trust

locations, such as ridge boards, rafters, purlins, gable walls, and mortise joints. Specific searches were made for bat droppings that can indicate present or past use and extent of use, whilst other signs that can indicate the possible presence of bats were also searched for, e.g. presence of stained areas, feeding remains, corpses, etc. Any droppings collected during the course of the surveys were visually assessed and attributed to a species where possible on the basis of size/shape/texture[7]. Where appropriate, samples of similar droppings were collected with gloved hands and put into labelled eppendorfs, and forwarded to the University of Warwick for DNA analysis.

2.3.5 **Trees**. Trees were assessed for their suitability to support roosting bats based on the presence of features such as holes, cracks, splits or loose bark. Suitability for roosting bats was rated based on relevant guidance[8] as:

- Negligible;
- Low;
- Moderate; or
- High.

2.3.6 Any potential roost features identified were also inspected for any signs indicating possible use

Dus

2.3.7 Dus ne 2022 to ide osting bats.

2.3.8 Sur era set-ups, con which was dep o aid in the ide erging / re-ent r to sunset, rem e in place approximately 1 hour 30 minutes to 2 hours before sunrise and remained in place until 15 minutes after sunrise. This survey method aims to identify any roosting bats emerging from or returning to potential roost sites.

2.3.9 This survey work was carried out during suitable weather conditions, as set out in Tables 2.1 and 2.2 below.

Table 2.1. Dusk survey details.

Date	Start & end times & time of sunset	Structure reference / location	Equipment used	Weather
05/05/2019	Start time: 20:12 End time: 22:27 Sunset: 20:27	B1	Anabat Scout. Infra-red Camera (Cannon AX11)	Dry, 90% cloud, BF1, 15°C
Comments: The survey was undertaken by 4 surveyors under direction of licence holder CLS00307.				

BF0 = calm, BF12 = hurricane force.

[7] Stebbings, RE, Yalden DW and Herman, JS (2007). '*Which bat is it? A guide to bat identification in Great Britain and Ireland.*' The Mammal Society

[8] Collins, J. (ed.) (2016) '*Bat Surveys for Professional Ecologists: Good Practice Guidelines* (3rd edn).' Bat Conservation Trust

Table 2.2. Dawn survey details.

Date	Start & end times & time of sunrise	Structure reference / location	Equipment used	Weather
13/05/2022	Start time: 03:13 End time: 05:28 Sunrise: 03:22	B1	Anabat Scout. Infra-red Camera (Cannon AX11)	Dry, 10% cloud, BF2, 10°C
Comments: The survey was undertaken by 4 surveyors under direction of licence holder CLS00307.				

BF0 = calm, BF12 = hurricane force.

Activity Surveys

2.3.10 Walked transect surveys were undertaken on a monthly basis during September and October 2019, and between April and August 2020 to ascertain the level of usage of the site by foraging or commuting bats. This survey method involves walking planned transect routes with key listening points, specifically covering habitats/features with particular potential for commuting or foraging bats. Echometer EM3 or Anabat Scout handheld bat detectors were employed alongside BatBox Duet detectors to aid identification of any bats observed. Each transect was walked from approximately 15 minutes prior to sunset, for 2-3 hours, with a minimum 3 minute stop at each listening point. This methodology was repeated for 1.5 - 2 hours prior to sunrise to complete the dawn survey.

2.3.11 This [redacted] n Table 2.3 bel[redacted]

Tab[redacted]

Date	Start & end times & time of sunset/sunrise	Transect / location	Equipment used	Weather
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]0% cloud, [redacted]1, 18°C
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]0% cloud, [redacted]1, 13°C
14/04/2020	Start time: 19.23 End time: 21.53 Sunset: 19.53	Transects A, B and C	Echo Meter EM3.	Dry, 0% cloud, BF2, 11°C
26/05/2020	Start time: 20.28 End time: 22.58 Sunset: 20.58	Transects A, B and C	Echo Meter EM3.	Dry, 30% cloud, BF2, 16°C
08/06/2020	Start time: 20.42 End time: 23.12 Sunset: 21.12	Transects A, B and C	Anabat Scout.	Dry, 10% cloud, BF1, 13°C
06/07/2020	Start time: 20.45 End time: 23.15 Sunset: 21.15	Transects A, B and C	Anabat Scout.	Dry, 20% cloud, BF1, 16°C
03/08/2020	Start time: 20.11 End time: 22.41 Sunset: 20.41	Transects A, B and C	Anabat Scout.	Dry, 40% cloud, BF1, 17°C
04/08/2020	Start time: 03.29 End time: 05.59 Sunrise: 05.29	Transects A, B and C	Anabat Scout.	Dry, 0% cloud, BF1, 12°C

BF0 = calm, BF12 = hurricane force

2.3.12 Automated static detector surveys were also carried out during which Song Meter 4 (SM4) detectors were positioned at four locations within the site for a minimum of five days each during September and October 2019, and between April and August 2020, to record any bat activity. All four static detectors were deployed during the same dates each month except

for during September 2019 and July 2020. During September statics in locations 1 and 2 were deployed between 3rd-9th September whereas a static was deployed in location SD4 between 25th-29th September. Static detectors were deployed at locations SD1, SD2 and SD5 in July between 6th-12th with a single static detector in location SD1 being deployed separately during 16th-21st July because of microphone errors during the initial July deployment. The detector locations are shown on Plan 5719/ECO5. The detectors were set to switch on approximately 30 minutes before sunset and switch off approximately 30 minutes after sunrise.

Analysis of Bat Survey Recordings

2.3.13 All bat calls were analysed using Analook W v4.4a and Anabat Insight to verify the species recorded during the survey work. Where recordings could not be reliably attributed to species (such as for *Myotis* species) or where overlaps between otherwise distinguishable species occur (such as in Pipistrelle bat calls around 40kHz or 50kHz) calls were identified to genus level; in the case of calls which could not be distinguished between *Nyctalus* sp. and Serotine, these have been labelled as 'unidentified big bat' species.

Badger (*Meles meles*)[9]

2.3.14 A detailed Badger survey was carried out in August 2019, with a further update survey car[redacted]st element inv[redacted]tered, each set[redacted]r from any [redacted]y not, have [redacted]e and have [redacted]n or around [redacted], are partly or completely blocked and cannot be used without considerable clearance. If the entrance has been disused for some time all that may be visible is a depression in the ground where the hole used to be and the remains of the spoil heap.

2.3.15 The second element involved searching for signs of Badger activity such as well-worn paths and push-throughs, snagged hair, footprints, latrines and foraging signs, so as to build up a picture of any use of the site by Badger.

Dormouse *(Muscardinus avellanarius)*[10]

2.3.16 Surveys were undertaken to establish the presence/absence of Dormouse within the site between October 2019 and August 2020. Survey work followed the methodology set out within best practice guidance[10], whereby nesting tubes are attached to branches of trees and shrubs and checked on a regular basis for signs of use by Dormouse.

9 Based on: Mammal Society (1989) '*Occasional Publication No. 9 – Surveying Badgers*'

10 Based on: English Nature (2003) '*Surveying dormice using nest tubes: Results and experiences from the South West Dormouse Project',* English Nature (2006) '*The Dormouse Conservation Handbook'*, 2nd Edition;, English Nature Research Report No. 524; and Natural England (2011) '*Interim Natural England Advice Note – Dormouse surveys for mitigation licensing – best practice and common misconceptions'*, WML-537 (12/11)

2.3.17 The guidance employs an indexation system to define survey effort, based on the number of tubes deployed and months over which these are in place and are checked for signs of use. Months in which use of nest tubes by Dormouse is more likely afford a higher number of points than months when there is a lower likelihood of use. The guidance recommends that determination of absence of Dormouse from a site should be based on a survey effort score of at least 20 points.

2.3.18 Accordingly, a total of 175 Dormouse nest tubes were deployed within the site, distributed evenly throughout the hedgerows and woodland edges within the site (see Plan 5719/ECO8). Nest tubes were checked monthly between October 2019 and November 2019 and again from May 2020 to August 2020, giving a total survey effort score of 20 points across the entire survey area.

Otter (*Lutra lutra*)[11]

2.3.19 The watercourses within the site were thoroughly searched for signs of Otter in August 2019. Such signs include holts (underground chambers used for lying up), spraints, prints, paths and slides. The banks of the watercourse were examined thoroughly from both sides (where accessible) and from the watercourse itself where scrub and water depth allowed.

Water Vole (*Arvicola amphibious*)[12]

2.3.20 The [redacted] ter Vole in Aug [redacted] tion grazed by [redacted] thoroughly fro [redacted] and water dep [redacted]

Rep [redacted]

2.3.21 Giv [redacted] cific survey was [redacted] s between Jun [redacted]

2.3.22 A total of thirty 50x50cm sheets of thick roofing felt were placed within suitable areas across the site to act as artificial refugia, which represents a density of 140 refugia per hectare. The refugia, or 'tins', provide shelter and heat up more quickly than their surroundings in the morning and can remain warmer than their surroundings in the late afternoon. Being ectothermic (cold blooded), reptiles use them to bask under and raise their body temperature, which allows them to forage earlier and later in the day. Therefore, checking the refugia at appropriate times of the day (morning and evening) enables the presence/absence of common reptiles to be determined.

2.3.23 The refugia remained undisturbed for approximately 1-2 weeks to allow reptiles to find and start using them. Following this initial bedding-in period, refugia were checked at appropriate times of the day on seven occasions during suitable weather conditions, as set out below in Table 2.4.

11 Surveys based on: Life in UK Rivers (2003) *'Monitoring the Otter - Conserving Natura 2000 Rivers*'. Monitoring Series No. 10

12 Surveys based on: Dean, M., Strachan, R., Gow, D. and Andrews, R. (2016) '*Water Vole Mitigation Handbook (The Mammal Society Mitigation Guidance Series). Eds Fiona Mathews and Paul Chanin. The Mammal Society, London.*

13 Surveys based on: Froglife Advice Sheet 10 (1999) '*Reptile Survey - an introduction to planning, conducting and interpreting surveys for snake and lizard conservation.*'

Table 2.4. Reptile survey dates and weather conditions.

Survey Date	Weather Conditions			
	Wind (BF)	Temp(c)	Cloud Cover (%)	Precipitation
22/06/2020	2	17	10	Dry
24/06/2020	1	19	0	Dry
27/06/2020	3	15	100	Heavy Rain
29/06/2020	1	15	80	Dry
01/07/2020	2	16	50	Dry
03/07/2020	3	14	60	Dry
05/07/2020	4	16	100	Light Rain
07/07/2020	1	19	95	Dry

BF0 = calm, BF12 = hurricane force

2.3.24 In addition, reptiles basking in the open or partial cover were actively searched for in suitable locations across the site through direct observation. Existing natural objects (e.g. logs and rocks) and artificial refugia (e.g. debris, tyres, etc.) were also searched, where present, for reptiles or evidence of reptiles (e.g. sloughed skin).

Great Crested Newt (*Triturus cristatus)*

Hab

2.3.25 As [redacted] the site, a Hab[redacted]dies within 250[redacted]nd satellite ima[redacted]late, to be use[redacted] surveys of por[redacted]tes that the por[redacted]e footprint con[redacted]substantial neg[redacted] Given that in t[redacted]e site, it is considered that survey of ponds within 500m of the site boundary is not required, and that survey of ponds within 250m represents adequate survey effort.

2.3.26 An HSI study is used to assess the potential of water bodies to support Great Crested Newt. It is undertaken by attributing a score to a number of factors that can affect the presence or absence of this species. Ten factors are utilised in an HSI assessment, as described below:

- *SI1 Location.* The location of the water body within Great Britain;
- *SI2 Pond area.* The size of the water body;
- *SI3 Permanence.* How often the water body dries out;
- *SI4 Water Quality.* The water quality, based primarily on invertebrate diversity;
- *SI5 Shade.* The percentage of the perimeter of the water body that is shaded;
- *SI6 Fowl.* The presence or absence of water fowl;
- *SI7 Fish.* The presence or absence of fish;

[14] 250m is the typical maximum migratory range of this species, see English Nature (2004) '*An assessment of the efficiency of capture techniques and the value of different habitats for the great crested newt* Triturus cristatus'. English Nature Research Report 576

- *SI8 Pond Count.* The number of water bodies within 1km of the surveyed water body (not counting those on the far side of major barriers such as roads);
- *SI9 Terrestrial.* The quality of terrestrial habitat surrounding the water body; and
- *SI10 Macrophytes.* The percentage cover of the surface area of the water body covered by macrophytes (aquatic plants).

2.3.27 The overall suitability of the water body is then determined by entering these figures into an equation devised by Oldham *et al*. (2000)[15]. The suitability of water bodies is classed into one of five categories, either 'poor', 'below average', 'average', 'good' or 'excellent'.

2.3.28 This HSI study was undertaken in line with the guidelines developed by Oldham *et al.* and subsequently adapted by ARG UK (2010)[16]. A suitably experienced ecologist undertook the assessment in line with these guidelines, with the study also supplemented by desktop research where appropriate.

Environmental DNA (eDNA)

2.3.29 An eDNA survey was carried out to determine the presence/absence of Great Crested Newt within five on-site ponds, **P2-P6** and one off-site pond, **P8** (see Plan 5719/ECO9). Water samples were collected on the 29/06/2019 following the procedure outlined in the methods ma[redacted]acceptable sea[redacted]nples were coll[redacted]e sent for labo[redacted]ure set out by [redacted]

Det[redacted]

2.3.30 Two[redacted]CO9) were sub[redacted]020, having bee[redacted]port Great Cre[redacted]

2.3.31 Surveys were undertaken in suitable weather conditions, using at least three methods per visit (where possible) in accordance with the 'Great Crested Newt Mitigation Guidelines'[19] to determine the presence or absence of Great Crested Newt. Suitable weather conditions are those nights when the night-time air temperature is 5°C or warmer. All surveys were conducted during such conditions.

2.3.32 Torch surveys involved the use of high-powered torches (min. 50,000 candlepower) to count the number of each amphibian species present. As recommended by the guidance, the entire margin of each water body was walked once, slowly searching for Great Crested Newt.

[15] Oldham RS, Keeble J, Swan MJS & Jeffcote M (2000) '*Evaluating the suitability of habitat for the Great Crested Newt (Triturus cristatus)*'. Herpetological Journal 10 (4), 143-155

[16] Amphibian & Reptile Groups of the UK (2010) '*ARG UK Advice Note 5: Great Crested Newt Habitat Suitability Index*'

[17] Biggs J., Ewald N., Valentini A., Gaboriaud C., Griffiths R.A., Foster J., Wilkinson J., Arnett A., Williams P. and Dunn F. (2014). '*Analytical and methodological development for improved surveillance of the Great Crested Newt. Annex 5. Technical advice note for field and laboratory sampling of great crested newt (*Triturus cristatus*) environmental DNA*'. Freshwater Habitats Trust, Oxford.

[18] Natural England (2015) '*Great crested newts: surveys and mitigation for development projects. Standing advice for local planning authorities who need to assess the impacts of development on great crested newts*'. Last updated at www.gov.uk on 24/12/2015.

[19] Surveys based on: English Nature (2001) *'Great Crested Newt Mitigation Guidelines'*

2.3.33 Bottle-trapping involved setting traps made from 2-litre plastic bottles around the pond margins, and leaving the traps in place overnight before checking them the following morning. A density of one trap every two metres of shoreline was employed, where possible, as recommended by the guidance.

2.3.34 In theory, netting involves sampling for a period dictated by the size of the water body, and the guidance recommends 15 minutes of search time for every 50 metres of shoreline. In practice, where undertaken, the search time significantly exceeded this value.

2.3.35 Where suitable vegetation was present within the waterbody, egg searching took place. This involved searching for newt eggs amongst vegetation and unfolding leaves where necessary to confirm species identification. As recommended by the guidance, once a Great Crested Newt egg had been identified no further egg searching was carried out.

2.3.36 Terrestrial habitats were also searched for Great Crested Newts. This involved searching under logs, rocks and debris, which are favoured resting places.

Breeding Birds[20]

2.3.37 The use of the site by breeding birds was assessed over three survey visits, (on separate days) in April, May and June 2020. Birds present within the site were recorded using a me[redacted]ird Census tec[redacted]

2.3.38 This[redacted]birds either see[redacted]g standard BTC[redacted]

2.3.39 This[redacted]pping each reg[redacted]hose areas con[redacted]ach survey, tog[redacted]v.

Tab[redacted]

Survey Date	Weather Conditions			
	Wind (BF)	Temp(c)	Cloud Cover (%)	Precipitation (0-5)
26/04/2020	1	10	80	1
23/05/2020	2	12	80	3
20/06/2020	1	11	80	6

2.4 Survey Constraints and Limitations

2.4.1 All of 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 during different seasons. The Phase 1 habitat survey was undertaken within the optimal season therefore allowing a robust assessment of habitats and botanical interest across the site.

2.4.2 Attention was paid to the presence of any invasive species listed under Schedule 9 of the Wildlife and Countryside Act 1981 (as amended). However, the detectability of such species

[20] Surveys based on methodology within: Baille *et al*. RA (2010) '*Breeding Birds in the Wider Countryside: their conservation status*', BTO Research Report No. 385, BTO, Thetford.

varies due to a number of factors, e.g. time of year, site management, etc., and hence the absence of invasive species should not be assumed even if no such species were detected during the Phase 1 survey.

2.4.3 A recognised limitation of the bat activity surveys is that bat detectors can only provide an index of activity rather than absolute numbers of bats. Therefore, the results of the bat activity surveys should only be considered indicative of the amount of use bats make of an area rather than the abundance of bats. In addition, some bat species, e.g. Brown Long-eared Bat, are difficult to detect due to their quiet echolocation calls.

2.4.4 Densely vegetated habitats within the site have the potential to reduce the detectability of field signs for faunal species such as Badger. A detailed survey was able to be completed and, whilst dense scrub vegetation is present within the site, it is considered that the survey results do provide an accurate baseline to assess the potential for impacts on Badger under the development proposals.

2.5 Ecological Evaluation Methodology

2.5.1 The evaluation of ecological features and resources is based on professional judgement whilst also drawing on the latest available industry guidance and research. The approach taken in this report is based on that described by the Chartered Institute of Ecology and Env[redacted]'important eco[redacted]l, national, reg[redacted]x 5719/1.

[21] CIEEM (2019) '*Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine*', Chartered Institute of Ecology and Environmental Management, Winchester

3 Ecological Designations

3.1 Statutory Designations

3.1.1 The statutory designations of ecological importance that occur within the local area are shown on Plan 5719/ECO2. The nearest statutory designation is West Park, Uckfield Local Nature Reserve (LNR) located approximately 100m to the south of the site. The LNR is designated on the basis of a variety of habitats, including woodland, sandstone outcrops, marshland and open grassland (see Annex 5719/3 for citation). The next nearest statutory designation is Buxted Park Site of Special Scientific Interest (SSSI) located approximately 800m to the east of the site. Buxted SSSI is designated for its range of unimproved grassland communities with parkland trees and areas of woodland.

3.1.2 The nearest European statutory designation is Ashdown Forest Special Protection Area (SPA), located approximately 3.4km to the north of the site. The SPA is designated on the basis of regularly supporting nationally important breeding populations of Nightjar *Caprimulgus europaeus* and Dartford Warbler *Sylvia undata*. A broadly equivalent area, located 3.7km to the north of the site, is designated as Ashdown Forest Special Area of Conservation (SAC). The primary reason for designation is based on large continuous blocks of wet and dry heaths lowland, whilst populations of Great Crested Newt are a secondary qua

3.1.3 Nat assess the risk nd scale of dev affects any resi

3.2 Non-statutory Designations

3.2.1 The in the local are ion is Lake Wo ted on the basis of ancient woodland surrounding a large man-made lake with sandstone outcrops supporting important populations of bryophytes (see Annex 5719/3 for citation). It is managed by the Woodland Trust.

3.2.2 The nearest non-statutory designation is Butcher's Wood Local Wildlife Site (LWS) located 30m to the west of the site. The LWS is designated on the basis of its ancient woodland, together with a large population of Wild Daffodil *Narcissus pseudonarcissus*, and significant sandstone outcrops of rich and interesting bryophytes (see Annex 5719/3 for citation).

3.3 Priority Habitats, Ancient Woodland and Notable Trees

3.3.1 No records of ancient or veteran trees were returned from the data search, which included a check of the Woodland Trust Ancient Tree Inventory.

3.3.2 However, arboricultural surveys of the site identified a number of veteran trees within the site, a summary of which is provided below:

- A group of old Ash coppice stools, and a veteran Cherry Located on historic ditch and wood-bank feature on the east side of Shermanreed Wood (Woodland compartment **W5a**).

- A Veteran free-standing Beech within field SI1.
- Within Fir Tree Grove (W9), there are a further two veteran trees (a veteran Pedunculate Oak and a Beech).

3.3.3 In addition, there are several notable trees located within Lake Woods to the south of the site, and there is a single notable tree to the north of the site, on London Road, Budlett's Common.

3.3.4 A large proportion of the woodland within and surrounding the site is identified in MAGIC as being included within the provisional Ancient Woodland Inventory as Ancient and Semi-natural Woodland (ASNW), including Shermanreed Wood, Budlett's Wood, Longwood Gill and a part of Thirty Acre Wood. Information returned from the SxBRC also identifies Longwood Gill as being 'Ghyll Woodland'. The majority of woodlands on the west side of the site, adjacent to the A22 are not shown as ASNW.

3.3.5 The large majority of woodland within the site is shown as the Priority Habitat 'Deciduous Woodland'. There are no other Priority Habitats identified on MAGIC within the site, although an area within the north of the site is identified as 'Good quality semi-improved grassland (non-priority)'.

3.4 Biodiversity Opportunity Areas

3.4.1 A n[redacted]ussex Local Nat[redacted]cal Records Cen[redacted]ancement. Det[redacted]er with the rele[redacted]reams and Ash[redacted]3km to the sou[redacted]

3.4.2 The[redacted]y protected hea[redacted] of habitats comprising open heath, ancient woodland, ghyll woodland and wetlands. Ephemeral streams within the site form part of the upper headwaters of the Ouse River, together with associated woodland corridors, and associated ponds. Some of the targets of the Western Ouse Streams and Ashdown Forest BOA are relevant to the site. The inclusion of SANG within the proposed development, provide an opportunity to contribute to these targets, and indeed a number of features, such as the establishment of woody buffer zones, and restoration of wet grassland fall into this category. The River Uck and its Headwaters BOA is not considered to be relevant to the current proposals.

3.5 Summary

3.5.1 The designations are summarised in table 3.1 below. In summary, the site itself is not subject to any statutory ecological designations. Lake Woods LWS is not directly affected but is located immediately to the south of the site.

3.5.2 Almost all woodland within the site is Large parts of the southern parcel of land is shown as the Priority Habitat 'Deciduous Woodland in MAGIC. Large sections of the woodland in the southern parcel are shown on MAGIC as Ancient Semi-Natural Woodland.

Table 3.1. Ecological designations within the zone of influence

Name	Designation	Brief Description	Distance from Site	Level of Value
Statutory Designations				
International Designations (within 25km search radius)				
Ashdown Forest	Special Protection Area (SPA)	The designation is based on large continuous blocks of wet and dry heaths lowland, together with populations of Great Crested Newt.	3.4km to N	International
Ashdown Forest	Special Area of Conservation (SAC)	The SPA is designated on the basis of regularly supporting nationally important breeding populations of Nightjar Caprimulgus europaeus and Dartford Warbler Sylvia undata.	3.7km to N	International
Lewes Down	SAC	Semi-natural dry grasslands and scrubland facies established on calcareous substrates, including important orchid sites.	10.7km to S	International
Castle Hill	SAC	Semi-natural dry grasslands and scrubland facies established on calcareous substrates, including important orchid sites.	17.3km to SW	International
Pevensey	SAC and Ramsar	Little whirlpool ram's-horn snail Anisus	17.6km to SE	International
National Des				
West Park, U				County
Buxted P				National
Hempste Meadows		tussock sedge and ferns. The meadow also forms a valuable foraging area for the bats that have been recorded from neighbouring properties.		County
Non-statutory Designations (within 2km search radius)				
Lake Woods	LWS and Local Geological Site (LGS)	Ancient woodland, managed by the Woodland Trust, surrounding a large man-made lake with sandstone outcrops supporting important populations of bryophytes.	Adjacent to S boundary	District
Butcher's Wood, Uckfield	LWS	Ancient woodland, together with a large population of Wild Daffodil Narcissus pseudonarcissus, and significant sandstone outcrops of rich and interesting bryophytes.	35m to W	District
Uckfield Cemetery	LWS	The site contains neutral species-rich grassland comprising species-rich low acidic grassland sward and populations of Green-winged Orchids (Orchis morio).	250m to E	District
Shortbridge Stream Meadow	LWS (and Designated Main River)	A series of fields along Shortbridge Stream, and an extensive area of marshy grassland, tall herb and swamp-type vegetation. The habitats support a diverse range of invertebrates and sedge species.	250m to W	District

Budlett's Common Rocks	LWS	This site consists of extensive rocks which are situated in three large gardens. The site supports a number of rare and uncommon liverworts and mosses, including a number of characteristic sandrock species.	800m to NE	District
Maresfield Churchyard LWS	LWS	The site contains neutral grassland fields which contain species-rich areas of the lawn whislt supporting a rich mix of CHEG fungi species.	1.4km to NW	District
Piltdown Common	LWS	The site is a well-managed golf course with a complex mosaic of habitats comprising heathland, acid grassland, scrub, woodland and a large pond.	2km to W	District



4 Habitats and Ecological Features

4.1 Background Records

4.1.1 No specific records of any protected, rare or notable plant species from within or immediately adjacent to the site are included within the information returned from the Records Centre. A number of records of Priority Species were returned from SxBRC including Chamomile *Chamamelum nobile* Eyebright *Euphrasia pseudokerneri,* Small-flowered Sticky Eyebright *Eurphrasia officinalis* and Greater Water Parsnip *Slum latifolium*, dating between 1989 and 2005, none of which were recorded within or adjacent to the site. No evidence for the presence of any of these species within the site was recorded during the survey work undertaken.

4.2 Overview

4.2.1 The habitats and ecological features present within the site are described below and evaluated in terms of whether they constitute an important ecological feature and their level of importance, taking into account the status of habitat types and the presence of rare plant communities or individual plant species of elevated interest. The likely effects of the proposals on the habitats and ecological features are then assessed. The value of hab[redacted]elow.

4.2.2 The[redacted]e site:

- Invasive Species.

4.2.3 The locations of these habitat types and features are illustrated on Plan 5719/ECO3 and described in detail below.

4.3 Priority Habitats

4.3.1 Section 40 of the Natural Environment and Rural Communities (NERC) Act 2006 places duties on public bodies to have regard to the conservation of biodiversity in the exercise of their normal functions. In particular, Section 41 of the NERC Act requires the Secretary of State to publish a list of habitats which are of principal importance for conservation in England. This list is largely derived from the 'Priority Habitats' listed under the former UK Biodiversity Action Plan (BAP), which continue to be regarded as priority habitats under the subsequent country-level biodiversity strategies.

4.3.2 Of the habitats within the site, deciduous woodland, wood pasture, hedgerows and ponds are considered to qualify as Priority Habitats and therefore constitute important ecological features. This is discussed further in the relevant habitat sections below. One field (**SI4**) is also described on MAGIC as being 'Good Quality Semi-improved grassland (Non-Priority).

4.4 Deciduous Woodland

Description

4.4.1 Several areas of deciduous woodland are present within the site, forming a series of broad interconnected swathes, much if which is listed on the provisional inventory of Ancient Woodland. The overall distribution of Ancient Woodland is shown within Annex 5719/3, whilst its distribution is also indicated on the Ecological Features Plan 5719/ECO3.

4.4.2 It should be noted that the inclusion of woodland on the Ancient Woodland inventory does not necessarily mean that it is in fact ancient – i.e. *An area that has been wooded continuously since at least 1600 AD,* although it has been treated as such for the purposes of the current assessment.

4.4.3 Descriptions of the various woodland areas within the Study Area are given below, divided into the main woods appearing on the OS Base Map, each of which has been allocated a woodland compartment number. A plan of the compartments is shown at Plan 5719/ECO3.

4.4.4 All woodland areas within the study area have been subject to detailed woodland botanical surveys, according to the methodology described in Section 2 above, and with the full results set out in Annex 5719/4. As well as describing their tree and understory composition and [redacted] Woodland Indi[redacted]gether with woo[redacted]ed that the pre[redacted]ion of the anc[redacted] growing in nor[redacted]e quality of gro[redacted]cal interest of t[redacted]

Bud[redacted]

4.4.5 The[redacted] deciduous woodland with infrequent mature Oak, together with Birch, Hornbeam, Sweet Chestnut and frequently an understory of Hazel. Ground flora is variable in quality, with the dryer area of woodland floor supporting few AWVPs. However, along the moist central valley, where Alder is dominant, there are dense carpets of Bluebells, together with abundant Wood Anemone and frequent Male Fern. There is a large amount of fallen deadwood throughout these areas. Some area have been degraded by the formation of a BMX track. A small number of AWIs are present (seven in total).

Budletts's Wood – North (W4) – Mostly Ancient Woodland

4.4.6 Budlett's Wood is a large, wooded area defined broadly by a path to the east, by Budlett's Cottage and the Old Keeper's House to the north, and by open grassland areas to the south. The woodland comprises a wide range of deciduous stand types and is dissected by a watercourse which runs in an east-west orientation. The majority of the woodland is designated as Ancient Semi-Natural Woodland.

4.4.7 A diverse range of woodland types occur within the woodland as a whole, including areas of climax oak woodland in the west (**4e**), together with an area of wet Alder woodland (**4d**), stands of Chestnut coppice (**4b**), and areas of more mixed woodland. There is a large heathy clearing in the west part of the woodland (**4c**).

4.4.8 All or part of woodland compartments **W4c**, **W4d**, **W4e,** and **W4g** are within the red line boundary, whilst areas 4a and 4b part of the wider study area. All are described in more detail below.

4.4.9 Area **4a** is a former clearing which has now become partly colonised by young Oak, Cherry and Alder trees and Bramble scrub. The northern part of the clearing has Bluebell carpets, although elsewhere the cover of AWVPs is limited to occasional Three-nerved Sandwort, Red Currant and Wood Speedwell. A relatively low number of AWIs (5 in total) are present. It is not designated as Ancient Semi-Natural Woodland.

4.4.10 Area **4b** is a stand of outgrown Chestnut coppice which has not been recently maintained, and a number of trees have fallen. Ground flora here is limited, and there are extensive thickets of Rhododendron. Towards the south of the area, around the stream, the woodland grades into Oak/Alder, with more varied woodland and hazel understory and there are thick carpets of Bluebells, which occur together with Greater Stitchwort and Wood Sorrel. Areas of invasive species are present near the boundary of Old Keeper's House, including Japanese Knotweed together with Shallon, and patches of a variegated Yellow Archangel. A moderate number of AWIs are present (10 in total).

4.4.11 Area **4c** is a heathy clearing covered in Bracken, although around the margins the presence of acid-loving species such as Devil's-bit Scabious and occasional Ling suggest its status as for[redacted]r extensive sta[redacted]dges of the clea[redacted]

4.4.12 Are[redacted]Willow and Bird[redacted]nd. Ground flor[redacted]a moderate nur[redacted]*osa*, Wood Sed[redacted]*m spicante* and[redacted]

4.4.13 Are[redacted], limited to occasional Holly and Honeysuckle. Ground flora is generally absent, although there extensive patches of Common Cow-wheat *Melampyrum pratense* in some places. A moderate number of AWIs are present (eight in total).

4.4.14 Area **4f** is a stand of young dry Birch woodland, forming a dense understory in places, together with some Holly, Oak, Rowan, Beech and Alder Buckthorn. Ground flora here is sparse with AWVPs largely absent, with the exception of occasional Wood Anemone and Wood Spurge. A moderate number of AWIs are present (10 in total).

4.4.15 Area **4g** is an area of mixed deciduous woodland occupying the higher ground between Old Keeper's House and the A22, and grading into heathland to the north. It contains some mature Oak, Birch and Sycamore together with a Hazel understory. In places, particularly towards the west, the woodland supports moderate numbers of AWVPs, including Bluebell *Hyacinthoides non-scripta*, Narrow Buckler Fern *Dryopteris carthusiana*, Hard Fern, Wood Sorrel *Oxalis acetosella* and Red Currant *Ribes rubrum* – nine AWIs are present in total. Dense stands of the invasive species Shallon *Gaulteria shallon* have grown up around the path to the east of Keeper's Cottage and stands of *Rhododendron* are also present in places.

4.4.16 Budletts Wood is assessed as being of **District** level importance.

Shermanreed Wood (W5) – Ancient Woodland

4.4.17 Shermanreed Wood (**Area 5**) is a diverse woodland forming a broad linear corridor between fields **F1** and **F2**, which includes stands of Oak and Birch woodland, with areas of Alder dominating along a central watercourse and some groups of Larch. It is designated as Ancient Semi-Natural Woodland.

4.4.18 Recently planted stands occupy a large part of the woodland, In the south of the woodland there are several borrow pits which have been identified by historical map analysis as originating from iron-ore extraction activities. Here there is some regrowth of self-seeded Sycamore, alongside Oak, Cherry Chestnut and Elder. At the southern end of the woodland, adjacent to the site boundary, there is evidence of eutrophication, with Bramble *Rubus fruticosa* agg. and nettle *Urtica dioica* prevailing, together with limited stands of non-native invasive species including Japanese Knotweed *Reynoutria japonica*, and Giant Rhubarb *Gunera* sp.

4.4.19 In many places, most of the large trees appear to have been removed from the woodland, although there are occasional Oak standards, together with some semi-mature to mature Ash, Cherry, Birch and Alder. On the east side of the woodland is a historic ditch and wood-bank feature (noted as Target Note **TN01** on Plan 5719/ECO3) which has a number of old Ash coppice stools associated with it, including three veteran specimens. This notable tree is a

4.4.20 A la remaining). Hov are present (28 Anemone *Ane sitifolium* is loca *Ranunculus aur*

4.4.21 A sr d has been rec understory, incl and Wood Sedge. A relatively low number of AWIs are present (six in total). There is a further area of non-ancient woodland included within the red line to the south of Shermanreed Wood which comprises Oak with a bramble understory.

4.4.22 Shermanreed Wood is assessed as being of **District-County** level importance.

Longwood Gill (W6a) – Ancient Woodland

4.4.23 Longwood Gill is a narrow steep-sided wooded valley or ghyll, forming a linear feature along an ephemeral/dry stream bed. Steeply sloping banks are present on both sides, and sandstone outcrops are present at the head of the valley where there is evidence of erosion from flash flooding. Tree cover is mainly semi-mature to mature Oak, with Beech and Cherry also present, whilst an understory of hazel coppice occurs throughout.

4.4.24 Apart from some bare earth and eroded sections of bank, the ground flora is generally very rich, comprising extensive carpets of Bluebells, often co-dominant with Wood Anemone. Other AWVPs present include Hartstongue Fern *Asplenium scolopendrium*, Three-nerved Sandwort *Moehringia trinervia*, Primrose *Primula vulgaris*, Early Dog Violet, Yellow Archangel *Lamium galeobdolon*, Yellow Pimpernel *Lysimachia nemorum*, Wood Sedge, Hairy Woodrush *Luzula acuminata* and Pignut *Conopodium majus.* A total of 18 AWIs are present.

4.4.25 Longwood Gill is assessed as being of **District-County** level importance.

4.4.26 ***Copse Surrounding Pond P6 (W6b***

4.4.27 A separate wooded copse exists to the south of Longwood Gill, connected by hedgerow **H2**. The copse surrounds pond **P6** (a former iron extraction pit) which has steep wooded banks with trees comprising Oak, Beech, and Cherry, with an understory of Blackthorn, Hawthorn and Grey Willow. A small number of AWIs are present (6 in total).

4.4.28 Woodland compartment **W6b** is assessed as being of **Local** level importance.

Woodland Along East side of A22 - North (W7) – Ancient Woodland

4.4.29 A strip of woodland alongside the A22 (**W7**), contains wet woodland with frequent Alder and Birch located around a series of silted damp hollows which are fed by from two minor tributaries to the south and possibly taking road run-off. The largest (Pond **P1**) forms a boomerang-shaped pond with a brick control structure. None of the features contained standing water at the time of survey, but supported Stinging Nettle, Common Mint *Mentha aquatica* and Enchanter's Nightshade *Circaea lutetiana*, together with occasional Hard Fern.

4.4.30 The woodland becomes dryer to the south, and contains some semi-mature oak, together wit[redacted]trackways, wit[redacted]carpets of Blu[redacted]f AWIs are pre[redacted]

4.4.31 Wo[redacted]ance.

Wo[redacted]

4.4.32 Wo[redacted]nd located bet[redacted]s woodland wit[redacted]th differing spe[redacted]o **W8d**.

4.4.33 Woodland compartment **8a** is mainly recently planted woodland with Birch, Field Maple, Hawthorn, Ash, Hazel and Oak, with an element of self-sown Willow and Alder, with disturbance possibly resulting from the construction of the A22. The ground flora here is very poor, mainly limited to Ground Ivy and Enchanter's Nightshade with some Wood Anemone which has crept in from adjacent areas. Two AWIs are present.

4.4.34 Further south, in Area **8b**, which is designated as Ancient Semi-Natural Woodland, the woodland contains more frequent early mature Oak, Ash and Sycamore, together with Hornbeam, Sweet Chestnut and Horse Chestnut. There is frequent fallen deadwood comprising mainly collapsed Hornbeam and Birch. The ground flora contains frequent Bluebell, together with Wood Anemone and Dog's Mercury. A moderate number of AWIs are present (11 in total).

4.4.35 There is further abrupt change to Area **8c**, where the northern part of the woodland has grassy glades, with Bracken. A small number of AWIs are present (four in total). Further south, in Area **8d** are further areas of young woodland containing a range of species which appear to have been relatively recently planted. Towards the far south of the area woodland grades into hazel-dominated scrub with Sweet Chestnut, Horse Chestnut and Sycamore. Only one AWI (Field Maple) is present, although this is likely to have been recently planted.

4.4.36 Woodland within compartment **W8** is assessed as being of **District** level importance.

Fir Tree Grove (W9) – Ancient Woodland

4.4.37 Woodland compartment W9, known as Fir Tree Grove. The woodland forms part of the garden associated with Chicory Cottage, with the garden influence extending into the parts of the woodland closest to the house and along Rocks Road. Large sandstone rock outcrops are present in part along the boundary with Rocks Road and around the house while a large pond is present along part of the northern boundary, which extends offsite.

4.4.38 Fir Tree Grove comprises a mature canopy with a variable structure, dominated by Ash (experiencing Ash dieback) with frequent Scots Pine, especially in the west. A number of mature Pedunculate Oaks are present in the vicinity of the house as is Sycamore alongside a veteran Beech and a substantial Monterey Pine.

4.4.39 The understorey of Fir Tree Grove is sparse to very sparse across the majority of the woodland, although the density of the understorey increases locally, especially at the margins. The most prominent species comprise Hawthorn, Hazel, and Spindle, while small, localised Holly thickets are present. In addition, Sycamore is frequent within the understorey, forming a dense sub-canopy in places. The south-western boundary of the woodland, adjacent to Rocks Road, is heavily dominated by Cherry Laurel and Rho[redacted]

4.4.40 Mu[redacted] frequently acc[redacted] Sandwort, par[redacted] north-west, inte[redacted] 20 in total) are[redacted]

4.4.41 Else[redacted], especially alo[redacted] dodendron and[redacted] cally in the vici[redacted] s recorded in the eastern extreme of the ancient woodland, extending offsite to the north, with isolated specimens also recorded elsewhere along the south-eastern margin of the ancient woodland.

4.5 Semi-improved Grassland (Species-Poor)

Description

4.5.1 Two large fields of former pasture grassland are present within the development area. The northernmost (labelled **SI1** on Plan 5719/ECO3), located between Budlett's Wood and Shermanreed Wood, is approximately 9ha in size. The grassland sward in this field is relatively species-poor, with a limited range of grass species are present including Cocksfoot, Yorkshire Fog, Timothy and Red Fescue together with infrequent herb species such as Knapweed, Common Sorrell, Creeping Buttercup, Ribwort Plantain, Common Bird's-foot Trefoil, Lesser Stitchwort, Curled Dock, and occasional Ragwort.

4.5.2 Field **SI2** is located in the west of the site, and has a similar species composition to **SI1** above, but appearing to be regularly cut. The grass sward is dominated by Cock's-foot, together some finer grasses such as Red Fescue. There are frequent patches of Knapweed and Common Sorrell, together with Creeping Buttercup, Ribwort Plantain, Common Bird's-foot Trefoil, Lesser Stitchwort, Curled Dock, Ragwort which are occasional to locally frequent.

4.5.3 A further large field, being approximately 19ha in size, occupies the majority of the development area (**SI3**) and contains species-poor grassland, dominated by Yorkshire Fog, with some Perennial Ryegrass, Cock's-foot, Common Bent, Creeping Bent and Rough-stalked Meadowgrass. Herbaceous plant species are limited to frequent patches of White Clover and Broad-leaved Dock.

4.5.4 These grassland areas are not considered to constitute a feature of ecological importance.

4.6 Semi-improved Grassland (Moderately Species-Rich)

4.6.1 Area **SI4** is an area of moderately species-rich tall-sward neutral grassland, parts of which appear to be flushed with spring water, and which also contains well-spaced mature Oak specimens (typically with 60-80cm diameter stems), each surrounded by frequent scrub.

4.6.2 The area has been subject to a specific Phase 2 botanical survey during July 2020, which assessed the grassland against Priority Habitat criteria using a series of walked transects and aimed to classify it using the National Vegetation Classification (NVC) system[22]. Priority habitat status was assessed using the criteria provided within the Higher Level Stewardship Farm Environment Plan Handbook[23] as a guide.

4.6.3 Detailed botanical survey results including species lists for the grassland survey are given in Ann

4.6.4 The es, such as Ma though the gro damp. The her amble and Gre

4.6.5 The old of more tha lowers and sed he area as sup storable to, good quality.

4.6.6 Taking into account the local soil type (slightly acid with impeded drainage) and the species recorded, it is considered that the vegetation most broadly corresponds to Purple Moor-grass and Rush Pasture BAP priority habitat, although Purple Moor Grass is notably absent. Within the survey quadrats, four indicator species for this habitat were recorded, namely Greater Bird's-foot Trefoil *Lotus pedunculatus*, Glaucous Sedge *Carex flacca*, Devil's-bit Scabious *Succisa pratensis* and Bugle *Ajuga repens*. The presence of four indicator species, but below the threshold frequency (at least two frequent and two occasional in the sward), identifies the vegetation as species-rich grassland corresponding to a BAP/priority habitat, albeit not a particularly representative example, and of only moderate quality.

4.6.7 The condition assessment for Purple moor-grass and rush pasture (**G07**) considers a number of factors, including the cover of undesirable species. In this respect the BAP habitat fails in terms of the cover of invasive trees and shrubs (being >5%), whilst meeting the other cover criteria relating to undesirable species, large sedge species, and non-jointed rushes.

[22] Rodwell, J.S. (2006) NVC Users' Handbook, JNCC, Peterborough, ISBN 978 1 86107 574 1

[23] Higher Level Stewardship Farm Environment Plan (FEP) Manual Technical guidance on the completion of the FEP and identification, condition assessment and recording of HLS FEP features Third Edition – March 2010

Therefore, although qualifying, it is below the 'good condition' threshold. It is considered to be in poor and declining condition.

4.6.8 The grassland was a very poor match for any recognised NVC community and should not be ascribed to any particular community on the basis of the analysis undertaken.

4.6.9 In summary, the although the botanical survey results do not show a good fit with any particular BAP/priority habitat types of any particular NVC community the habitat nonetheless meets some criteria for Purple Moor-grass and Rush Pasture Priority Habitat type (type G07 under the HLS FEP) and is considered to be of ecological value on a local level on account of its botanical diversity. The condition of the habitat is assessed as being poor and declining. However, there is significant scope for enhancement of this area through removal of invasive scrub, principally Bramble and Oak but also Willow Salix scrub and, ideally through the reintroduction of regular management, such as an annual mowing or grazing regime. Without such intervention, it is considered likely that the botanical interest will be lost in a relatively short timeframe.

4.6.10 The grassland is considered to be an important ecological feature at the **local** level.

4.7 Sandstone Outcrops – Lower Plant Communities

4.7.1 Low [redacted] sandstone out [redacted] d in Annex 571 [redacted] of a house (Bu

4.7.2 A t[redacted] all of them ass[redacted] ciated with san

4.7.3 Sha[redacted] g *Tetraphis pell*[redacted] *um lineare*. Mo[redacted] *terophylla*, *Odontoschisma denudatum* and *Pseudotaxiphyllum elegans*. Stands perhaps representing later successional stages have some *Mnium hornum*. One well-lit face was dominated by *Aulacomnium androgynum*. Steep, dry faces are dominated by the lichens *Lepraria incana* or *L. finkii*. Sunny, exposed, sloping surfaces have bryophytes including *Hypnum cupressiforme*, a little *Ceratodon purpureus*, local *Polytrichum juniperinum* where there is a very slight soil accumulation, the lichen *Cladonia polydactyla*, and the lichen *Trapelia involuta* where there is a little flushing in wet weather. Some exposed sunny faces comprise bare rock with a few poorly developed crustose lichens, including pale, pinkish patches of sterile *Trapelia coarctata/elacista* and unidentifiable grey patches. The dominant species on shaded, gently sloping surfaces that are not very humid are *Hypnum cupressiforme* and especially *Isothecium myosuroides*.

4.7.4 Most of the woodland is young-growth and poor in lichens. A large oak northeast of the house had the old-forest lichen *Cresponea premnea* frequent on the trunk and an old oak NW of the house supported *Chaenotheca trichialis* and *Inoderma subabietinum*. An old pine supported the Nationally Scarce *Micarea doliiformis*.

4.7.5 All species recorded were relatively common, and none were considered Nationally Scarce, nor scarce in Sussex. Lichens on rock were very limited (again with no notable species recorded), but some notable species were recorded on several large trees near Chicory Cottage.

4.8 Hedgerows and Tree Lines

Description

4.8.1 Two hedgerows are present within the site, one located in the east (a spur from Shermanreed Wood within between fields **SI1 and SI2**), and one in the west within Field **F2**, connecting to Longwood Gill. The hedgerow and tree line are described in more detail in Table 4.1 below.

Table 4.1. Hedgerow descriptions.

No.	H	W	Woody species	Avg. per 30m*	Ground flora & climbers	Associated features	Comments (including structure / management)	Likely to qualify#
TL1	3-4m	5-7m	Oak (m), Hornbeam, Sweet Chestnut, Birch (m), Broom, Grey Willow.	≥5	Bramble, Bracken	<10% gaps, standard trees ditch, connects with woodland.	Line of mature oak trees with dense dense, unmanaged hedge at base.	**Y**
H1	5-6m	5-7m	Blackthorn, Oak (m), Grey Willow, Hawthorn, Ash (m)	≥5	Creeping Thistle, Meadow Vetchling,	Bank, <10% gaps, standard trees, connects with	Dense, unmanaged shaw with freq. mature trees on bank to west side.	**Y**

Woody specie *species (as listed under S* *mature, pv = possible veter*
* estimated *gulations 1997) in any*
# likely to qu *gulations 1997*

Eva

4.8.2 The *e are both rela* *s and both form* *and **H1** are considered to be species-rich[24] and are likely to qualify as ecologically 'important' under the Hedgerows Regulations 1997, based on the number of woody species and associated features.

4.8.3 Both hedgerows within the site are likely to qualify as a Priority Habitat based on the standard definition[25], which includes all hedgerows (>20m long and <5m wide) consisting predominantly (≥80%) of at least one native woody species. It has been estimated that approximately 84% of countryside hedgerows in GB qualify as a Priority Habitat under this definition.[25]

4.8.4 On this basis, the hedgerows within the site constitute important ecological features, although given the relatively limited network present, are only of importance at the **local** level.

[24] i.e. five or more native woody species within a 30m length (or four or more in Northern England) – FEP Manual
[25] Based on: Biodiversity Reporting and Information Group (2011) '*UK Biodiversity Action Plan (BAP) Priority Habitat Descriptions'*, ed. Ant Maddock

4.9 Trees (including Veteran Trees)

Description

4.9.1 A number of notable trees, and groups of trees, were recorded within the site. These are described in further detail below and labelled accordingly on Plan 5719/ECO3, with labels provided according to the Arboricultural Assessment[26] which has been carried out. A number have been classified as Veteran Trees using the methods and qualifying criteria described in the arboricultural report. The location of all veteran trees is indicated on Plan 5719/ECO3, with the reference numbers provided corresponding to the Arboricultural Assessment.

4.9.2 Trees **T3001, 3003 and 3004-6** are a group of substantial Veteran Ash coppice stools located on a woodbank on the east side of Shermanreed Wood (**W5**). The stools are of large diameter with their boles being typically of between 1 and 2m across and having substantial basal cavities and deadwood.

4.9.3 Tree **T3007** is a Veteran Cherry located close to the group of Ash described above. It has a very stout upright stem, has bark loss on the lower stem and dry habitat spaces present on the stem, as well as major deadwood.

4.9.4 Tre[redacted]s extensive dec[redacted]ader above c.8.[redacted] damage, a ligh[redacted]

4.9.5 Wit[redacted](a veteran Ped[redacted]

4.9.6 In a[redacted] woodland, and[redacted]f which are mat[redacted]

4.9.7 The assemblage of veteran trees is assessed as being of importance at a **District** level.

4.10 Scrub

4.10.1 An area of scrub exists to the east of the site, which is marked as **SC1** on the attached plan 5719/ECO3. The scrub area comprises clusters of immature scrub and young trees including Sycamore, Goat Willow, Ash and Hazel, with a ground flora comprising dense nettle and bramble, and with a local areas with a grassy sward occurring.

4.10.2 Further scrub, marked as **SC2** is located to the far south-west of the site, at the southern end of woodland area **W8d**. The scrub is composed of hawthorn, blackthorn and bramble, with some pockets of grassy understory including Bugle, Ground Ivy, Enchanters-nightshade, Ragwort, Germander Speedwell and Common Mouse-ear.

4.10.3 The scrub areas on site are assessed as being of relatively low ecological value, being of no greater than **Site** level importance.

[26] Downlands – Baseline Tree Survey to BS5837:2012 – Veteran Tree Identification. FLAC October 2020

4.11 Ponds

Description

4.11.1 Six ponds are located within the site, along with a total of five ponds located within 250m of the site boundary, labelled **P1** to **P6** on Plan 5719/ECO3. The ponds present within the site (**P1-P6**) are described in Table 4.2 below:

Table 4.2. Pond descriptions.

Pond no.	Brief description	Approx. size	Shading	Aquatic/ emergent & marginal vegetation	Comments
P1	Woodland pond	10x80m	Heavily overshaded by surrounding woodland	Stinging nettle, corn mint	Heavily silted woodland pond. No water at time of survey but may be seasonal. Takes flows from 2no. watercourses from south, and road run-off from adj. A22. Other shallow depressions to north-east.
P2	Woodland pond	10x30m (reduced to 5x5m)	75% shaded by surrounding woodland.	None	Triangular pond on dry watercourse. Largely dry with mud substrate.
P3	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
P4	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
P5	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
P6	Woodland pond	20x40m	[redacted] surrounding woodland	None	[redacted] copse with steep banks on all sides in former iron extraction pit.

4.11.2 The ponds recorded within the site are generally located within woodland, many of them located on minor tributaries, which are very susceptible to drying. All are shaded by the surrounding woodland are likely to be very seasonal and are heavily silted and clogged with leaf litter. Most do not contain any aquatic vegetation and represent very low-quality examples of this habitat type. Overall, the ponds are considered not to form important ecological features in their current form, although there is significant scope for their improvement, and they are considered to be of value at the **local** level. Recommendations for their retention and enhancement are detailed at Chapter 6.

4.11.3 Potential for the ponds to support faunal species such as amphibians is discussed below in Chapter 5.

4.12 Watercourses

4.12.1 A series of small ephemeral watercourses flow through the woodland areas of the site, which are shown as WC1, WC2 and WC3 on Plan 5719/ECO3. Some of these are associated with ghyll woodland (particularly those in Shermanreed Wood (**W5**) and Longwood Gill

(**W6**). Together with other minor tributaries originating from Budletts Wood to the north, these pass through two culverts under the A22 before joining the Shortbridge Stream to the west. The stream channels have mostly shallow banks, becoming steeper sided within the woodland gyhll sections.

4.13 Habitat Evaluation Summary

4.13.1 On the basis of the above, the following habitats within and adjacent to the site are considered to form important ecological features:

Table 4.3. Evaluation summary of habitats forming important ecological features.

Habitat	Level of Importance
Ancient Woodland (Longwood Gill and Shermanreed Wood)	**District-County**
Ancient Woodland (Other Areas)	**District**
Other Woodland (Priority Habitat)	**Local**
Veteran Trees	**District**
Moderately Species-Rich Grassland (off Snatts Road)	**Local**
[redacted]	
[redacted]	
[redacted]	

4.13.2 Oth[redacted]land, scrub and [redacted] important eco[redacted]

5 Faunal Use of the Site

5.1 Overview

5.1.1 During the survey work, general observations were made of any faunal use of the site with specific attention paid to the potential presence of protected or notable species. Specific survey work was undertaken in respect of Badgers, bats, Dormouse, Water Vole, Otter, reptiles and Great Crested Newt, with the results described below.

5.2 Priority Species

5.2.1 Section 40 of the Natural Environment and Rural Communities (NERC) Act 2006 places duties on public bodies to have regard to the conservation of biodiversity in the exercise of their normal functions. In particular, Section 41 of the NERC Act requires the Secretary of State to publish a list of species which are of principal importance for conservation in England. This list is largely derived from the 'Priority Species' listed under the former UK Biodiversity Action Plan (BAP), which continue to be regarded as priority species under the subsequent country-level biodiversity strategies.

5.2.2 During the survey work undertaken, the Priority Species, Barbastelle Bat *Barbastella bar* [redacted] s, Common Liza and Great Cre

5.3 Bats

5.3.1 **Leg** [redacted] under the Cor also listed unc such, both bat under the legi ent work is like land which would be subject to appropriate measures to safeguard bats. Given all bats are protected species, they are considered to represent important ecological features. A number of bat species are also considered S41 Priority Species.

5.3.2 **Background Records.** No specific records of bats from within or adjacent to the site were returned from the desktop study. Information received from the LRC returned records of Brown Long-eared Bat *Plecotus auritus,* Noctule*,* Serotine *Eptesicus serotinus*, Daubenton's Bat *Myotis* daubentonii, Whiskered Bat *Myotis mystacinus*, Natterers's Bat *Myotis nattereri*, Common Pippistrelle *Pipistrellus pipistrellus*, Soprano Pipistrelle and Pipistrelle bat species *Pipistrelle* sp. within 3km of the site. The closest record is for two adult Common Pipistrelle bats, recorded in June 2020, in a residential garden situated within 0.8km of the site boundary.

5.3.3 The Biodiversity Opportunity Area Statement for the Western Ouse Streams and Ashdown Forest Biodiversity Opportunity Area (see Annex 5719/2) refers to a cave within the Lake Wood LWS which is used as a bat hibernaculum, although no further details were found during the data search.

5.3.4 A previous ecological survey of the site (carried out in 2003) identified two bat roosts within trees, including a small Noctule roost within a veteran Beech tree within the site. The tree's location is indicated as tree **T7041/BT2** on Plan 5719/ECO3 (reference number **T7041**

corresponding to the Arboricultural Assessment. A small Natterer's Bat roost was identified in an Oak, located to the west end of Shermanreed Wood, and indicated by **BT3** on plan 5719/ECO3.

5.3.5 **Survey Results**

Visual Inspection Surveys

Buildings

5.3.6 A detailed visual inspection was undertaken of all the buildings within the site, which are all located in the curtilage of Chicory Cottage in the SE corner of the site. The results of the inspections are detailed at Annex 5719/7, and summarised below.

5.3.7 In summary, buildings **B1** (Chicory Cottage) is the only substantial building within the site, located within a considerable garden much of which is comprised of woodland. It is a large detached private property of brick construction, with two stories and pitched roof, with clay tiles. Buildings **B2-B6** are outbuildings of one kind or another (two sheds, a garage, a summerhouse and a greenhouse). These buildings and structures offer negligible roosting opportunities for bats and no evidence of roosting bats was recorded. Buildings **B1** exhibited a low number of potential roosting opportunities for bats and overall are assessed as pro[redacted]s, staining, fee[redacted]tails of the bui[redacted]d at Annex 571[redacted]

Table 5.1. Summary of Building Inspection Results.

Building No.	Picture	Potential Roost Features	Suitability
B1		Some lifted tiles on the south side of the hipped roof, next to the central chimney . Otherwise the building is in good condition with few external opportunities for roosting bats.	Low
B2		None	Negligible
[redacted]		[redacted]	[redacted]
[redacted]		[redacted]	[redacted]
B5		None	Negligible
B6		None	Negligible

Trees

5.3.8 A number of semi-mature and mature trees are present on site both although the vast majority are located within a woodland setting with free-standing trees being limited to those within field **SI4**, and with a number occurring within hedgerows and tree lines. Due to the large numbers of trees within the woodland areas as a whole, only those trees were examined where it is anticipated that tree removal may be required. This is primarily within

woodland area **W5b** and the trees along the alignment of both proposed access roads (located in woodland areas **W7** and **W8** respectively). Veteran tree **T7041** (**BT1**) is also included due to the roost previously recorded at this location. Trees **BT1** and **BT2** were inspected as part of the current survey work.

5.3.9 Further detailed inspections, of all trees requiring removal will be carried out once the detail of tree clearance has been established. This will take the form of a series of tree climbing surveys to inspect Potential Roost Features (PRFs) using an endoscope and/or a series of emergence/re-entry bat surveys.

5.3.10 The results of the tree assessment work undertaken at the site are illustrated on Plan 5719/ECO3 and summarised in Table 5.2 below:

Table 5.2. Tree inspection results.

Tree No.	Species	Age	Potential Roost Features	Suitability
BT1 (tree **T7041**)	Beech	Veteran	Major storm damage (lightning strike), and rot features. Free standing tree within field SI1.	High
BT2	Oak	Semi-mature	Cavity at base of main stem with internal rot. Located on alignment of proposed main access road.	Medium

[redacted]

5.3.11 [redacted]

Building	Date	Sunset/ sunrise	Emergence/ re-entry	Summary of other activity
[redacted]				
B1	05 May 2022 (dusk)	Sunset: 20:27	None	Soprano Pipistrelle with occasional Common Pipistrelle and *Nyctalus/serotine* passes. Bats passing and circling mainly to the rear/north of the building, concentrated during the dusk survey period. Circling activity at eastern gable end of the building.
	13 May 2022 (dawn)	Sunrise: 03:22	None	Occasional passes by Common Pipistrelle mainly to the front/ south of the building, predominantly during the dawn survey period. Very occasional passes by *Nyctalus/serotine*, Myotis and Soprano Pipistrelle.

Activity surveys (foraging /commuting)

5.3.12 The woodland throughout the site, and especially the woodland edges, offers potential opportunities for foraging bats as they are likely to support a reasonable biomass of invertebrate prey. In addition, tree-lines, hedgerows and watercourses form linear corridors that could act as navigational aids for commuting bats and provide connectivity to similar off-site habitats in the surrounding area. As such, bat activity surveys were undertaken at the site between September to October 2019 and April to August 2020.

5.3.13 **Manual walked transect surveys.** The bat activity survey results are illustrated on Plan 5719/ECO4, with summary tables provided below.

5.3.14 A total of five species/species groups were recorded during the walked activity transects across the site, namely Common Pipistrelle, Soprano Pipistrelle, Pipistrelle sp., Big Bat sp., *Myotis* sp. and Long-eared bat sp., as set out below in Table 5.4.

Table 5.4. Total number of bat registrations per species and % species composition recorded during manual activity surveys.

Species	Number of Registrations Recorded	Approximate % of Total Registrations Recorded
Common Pipistrelle	301	56.3
Soprano Pipistrelle	185	34.6
Pipistrelle sp.	8	1.5
Big Bat sp.	12	2.2
Myotis	25	4.7
Long-eared sp.	4	0.7

5.3.15 A discussion of activity levels for each transect is set out below.

Transect B

5.3.16 In g[redacted]t B, with a tota[redacted]ctivity was dor[redacted]s or 58.4%. Sop[redacted] remaining per[redacted]species and *My*[redacted]

5.3.17 Act[redacted]rveys, with a to[redacted]mately 0.43 and[redacted]as recorded at l[redacted]ctivity was elevated along much of the eastern areas of the site (within grassland Area **SI4**) and surrounding treeline **TL1**.

Transect C

5.3.18 In general, low to moderate levels of bat activity were recorded along transect C, with a total of 297 bat registrations recorded during the course of the surveys. Activity was dominated by Common Pipistrelle, which accounted for a total of 162 passes or 54.6%. Soprano Pipistrelle accounted for 34.3% of the registrations, whilst *Myotis* species accounted for a further 6.4%. The remaining percentage was attributed to Pipistrelle species, Long-eared bat species and Big Bat species.

5.3.19 Activity within this transect peaked during the May dusk survey, with a total of 122 bat passes recorded (which equates to approximately 0.75 registrations per minute). The highest level of activity was recorded at listening point 7 in the south-west of the transect adjacent to woodland **W8**.

5.3.20 **Remote Detector Surveys.** A total of eight bat species (or species groups[27]) were recorded over the course of all the static detector surveys, namely Common Pipistrelle, Soprano Pipistrelle, Nathusius' Pipistrelle, *Pipistrelle* sp., Big Bat sp., *Myotis* sp., Long-eared bat species and Barbastelle, as set out below in Table 5.5.

Table 5.5. Total number of bat registrations per species and % species composition recorded during static detector surveys.

Species	Number of Registrations Recorded	Approximate % of Total Registrations Recorded
Common Pipistrelle	5,402	72.59
Soprano Pipistrelle	1,271	17.08
Nathusius' Pipistrelle	7	0.09
Barbastelle	2	0.03
Myotis sp.	164	2.20
Big Bat sp.	309	4.15
Long-eared bat sp.	15	0.20
Unidentified Pipistrelle sp.	272	3.65

5.3.21 As set out in Table 5.5 above, activity was dominated by Common Pipistrelle, which acc[redacted]with other spe

5.3.22 A c[redacted]below and sum

Sta

5.3.23 In g[redacted]otal of 989 pas[redacted] Pipistrelle acc[redacted]19.8%, with oth[redacted]-eared bat spe[redacted]rations per hour, respectively. Activity was notably low during October, accounting for just 1.4% of all registrations.

Static detector location 2

5.3.24 Low to moderate levels of activity were recorded at this static location over the course of the surveys, with a total of 1,637 registrations recorded. Common Pipistrelle dominated activity, accounting for 74.6% of all registrations, with Soprano Pipistrelle accounting for 12.3%, with other species recorded in very low numbers, including 7 registrations of Long-eared bat species and a single registration for Barbastelle during July. Activity peaked during June, July and September with 7.54, 7.03 and 8.00 bat registrations per hour, respectively. Activity was notably low during August and October, accounting for just 0.73% and 0.86% of the total registrations, respectively. Other species were recorded in low numbers, with notable peaks in big bat activity in September with a total of 100 registrations recorded, accounting for 63.7% of total registrations for this species group.

[27] *Myotis* sp. bats are difficult to separate based on analysis of calls alone, and have therefore been identified to species group level only. It is likely several different species within each group are present at the site. Similarly, some Pipistrelle and *Nyctalus/Eptesicus* (or 'big bat') sp. calls were not possible to identify to species level and are assigned to a species group.

Static detector location 4

5.3.25 Moderate levels were recorded at this static location over the course of the surveys, with a total of 2,950 registrations recorded. Again, Common Pipistrelle dominated, accounting for 83.3% of all registrations, with other species recorded in low numbers, including a single registration for Barbastelle during October. Activity peaked during June (36.5 registrations per hour), with lower levels of activity during July (0.2 registrations per hour). Other species were recorded in very low numbers, with a notable peak in Soprano Pipistrelle activity in June with a total of 288 registrations recorded, accounting for 72% of registrations for this species.

Static detector location 5

5.3.26 Low to moderate levels were recorded at this static location over the course of the surveys, with a total of 1,866 registrations recorded. Common Pipistrelle accounted for 57.1% of registrations, whilst Soprano Pipistrelle accounted for 25.3% of registrations. Activity was highest at this location during September, accounting for 62.0% of all registrations and with a total average of 19.1 registrations per hour. Other species were recorded in very low numbers, representing passes by a single or very small number of bats, including 2 registrations of Nathusius' Pipistrelle.

5.3.27 **Eva**[redacted]

Roo

Bui

5.3.1 Bui g bats was rec e suitability for

5.3.2 Foll here are no bat

Trees

5.3.3 The vast majority of trees within the site are located within woodland, and will be retained under the proposals, such that in the event that bats are present within the trees they will remain unaffected.

5.3.4 Only those trees which may require removal, or where previous roosts had been recorded were assessed in terms of their bat roosting potential. Veteran tree **T7041** (**BT1**) - which was the site of a previously recorded roost - will be retained within the proposed SANG area.

5.3.5 Tree BT2 is likely to lost to the proposals and it is recommended that a further detailed inspection is carried out of this tree (in addition to any others) once the detail of tree clearance has been established. An initial inspection is possible of the tree from ground level using an endoscope, following which the need for additional emergence/re-entry surveys can be assessed.

Foraging / Commuting

5.3.6 Overall, low to moderate levels of activity were recorded within the site, with at least eight species (or species groups[28]) recorded during the surveys including Common Pipistrelle, Soprano Pipistrelle, Nathusius' Pipistrelle, Pipistrelle sp., Big Bat sp., *Myotis* sp., Long-eared bat sp. and Barbastelle. A summary of the automated activity survey and an evaluation of the importance of the site for each bat species are set out below.

5.3.7 *Common Pipistrelle* was the most frequently recorded species during the surveys undertaken, with a total of 5,402 registrations over the course of the surveys, accounting for 72.6% of all registrations. Activity was recorded to be highest at static location SD4 along treeline TL1 where a total of 2,457 registrations were recorded, with activity highest during the June survey.

5.3.8 *Soprano Pipistrelle* was the next most frequently recorded species, with a total of 1,271 registrations over the course of the surveys, accounting for 17.1% of all registrations. Activity was recorded to be highest at static location SD5 associated with woodland W6 where a total of 473 registrations were recorded, the majority of which were recorded during the September survey.

5.3.9 *Pipistrelle sp.* has been recorded within the site where the peak frequencies of echolocation call [redacted] er Common or [redacted] ith activity high[redacted]

5.3.10 *Nat*[redacted] tic location SD5[redacted] ea of dense scru[redacted]

5.3.11 *Big*[redacted] ations over the[redacted] ecorded to be [redacted] otal of 157 reg[redacted] September survey.

5.3.12 *Myotis* sp. was recorded infrequently at all four static locations, with a total of 164 registrations over the course of the surveys, accounting for 2.2% of all registrations. Activity was recorded to be highest at static location SD4 along treeline TL1 where a total of 54 registrations were recorded.

5.3.13 *Long-eared bat species* was recorded infrequently, with activity recorded at static location SD1 and SD2 only. Just 15 registrations were recorded, all of which were recorded during the September survey for SD1 with 6 registrations recorded during the October survey and a single registration during the May survey for SD2.

5.3.14 *Barbastelle* was also recorded infrequently, with activity recorded at static location SD2 and SD4 only. Only two registrations were recorded across all the surveys, with one recorded during the July survey for SD2 and one during the October survey for SD4.

5.3.15 In summary, Common Pipistrelle was most frequently recorded, with sustained foraging activity by moderate numbers of bats throughout the site, particularly along the woodland areas. Frequent records of foraging and commuting Soprano Pipistrelle were also recorded,

[28] *Myotis* sp. and *Nyctalus/Eptesicus* sp. bats are difficult to separate based on analysis of calls alone, and have therefore been identified to species group level only. It is likely several different species within each group are present at the site.

particularly associated with Woodland W6, along with sporadic Big Bat sp. and *Myotis* sp. passes. Long-eared bat species and Nathusius' Pipistrelle were recorded infrequently, indicating that the site is unlikely to be of high importance for these species.

5.3.16 Two Barbastelle bat passes were recorded within the site at static locations SD2 and SD4, which are both situated within or close to woodland. This species is known to be a woodland roosting species, and it is likely that the number of registrations recorded at this location is attributable to a single or small number of bats.

5.3.17 Guidance on evaluation of the overall assemblage of bats at a site (Wray et al., 2010)[29] sets out a scoring system based on the rarity of species recorded, number of individuals, proximity to roosts and habitat character. The results of this scoring exercise are set out below for the bat species recorded within the site:

Table 5.4. Evaluation of bat species recorded at the site

Species	Rarity	Number of bats	Roosts/potential roosts nearby	Linear habitat characteristics	Total score
Common Pipistrelle	Common (2)	Small number of bats (10)	Not known (4)	Isolated outgrown hedgerows and moderately sized fields (3)	18
				Isolated outgrown	19
					29
C					17

5.3.18 Bas ints, which equ

5.3.19 The presence of Barbastelle results in a score of 29, which relates to county level importance, but as set out above, the occurrence of this species within the site is likely attributable to a single or small number of bats. This species is now known to be widely distributed across the rural landscape of southern Britain (although never common)[30], and therefore the valuation of county value for this species appears an over-estimation.

5.3.20 Accordingly, it is considered that overall, the population of bats associated with the site is considered to be important at the **District** level.

5.4 Badger

5.4.1 **Legislation.** Badger receive legislative protection under the Protection of Badgers Act 1992 (see Annex 5719/2 for detailed provisions), and as such should be assessed as an important ecological feature. The legislation aims to protect the species from persecution, rather than being a response to an unfavourable conservation status, as the species is in fact common

[29] S. Wray, D. Wells, E. Long & T. Mitchell-Jones (December 2010). *Valuing Bats in EcIA.* In Practice, IEEM.

[30] Mathews F, Kubasiewicz LM, Gurnell J, Harrower CA, McDonald RA, Shore RF. (2018) *A Review of the Population and Conservation Status of British Mammals. A report by the Mammal Society under contract to Natural England, Natural Resources Wales and Scottish Natural Heritage.* Natural England, Peterborough.

over most of Britain. It is the duty of planning authorities to consider the conservation and welfare impacts of development upon Badger and issue permissions accordingly.

5.4.2 Licences can be obtained from Natural England for development activities that would otherwise be unlawful under the legislation. Guidance on the types of activity that should be licensed is laid out in the relevant best practice guidance. [31, 32]

5.4.3 [redacted]

5.4.4 [redacted]

[redacted]

5.4.5 [redacted]

[31] English Nature (2002) '*Badgers and Development*'
[32] Natural England (2011) '*Badgers and Development: A Guide to Best Practice and Licensing*', Interim Guidance Document
[33] Thornton, P.S. (1998) Density and distribution of badgers in south-west England – a predictive model. *Mammal review*, **18**, 11-23.
[34] Natural England (December 2010) *Badgers and Development – A guide to best practice and licensing*.

[redacted]r.

5.4.6 [redacted]

5.5 Dormouse

5.5.1 **Legislation:** Dormouse is fully protected under the Wildlife and Countryside Act 1981 (as amended) and is a European Protected Species under the Conservation of Habitats and Species Regulations 2017 (as amended). Such legislation affords protection to individuals of the species and their breeding sites and places of rest (see Annex 5719/2 for detailed provisions). Dormouse is also a S41 Priority Species. On this basis, Dormouse is considered to form an important ecological feature.

5.5.2 **Background Records:** No specific records of Dormouse were returned from the desktop study from within the site, however results were returned from the adjacent LWS Lake Wood and within the 2km search area. The data returned from SxBRC includes multiple records of Dormouse, most of which derive from dormouse box checks within the LWS Lake Wo[redacted]south-west dat[redacted]

5.5.3 **Sur[redacted]**rticularly in the[redacted]ughout the stu[redacted]n grassland fiel[redacted]

5.5.4 Giv[redacted]Dormouse sur[redacted]9 and May to A[redacted]

5.5.5 Nes[redacted]ormouse is widespread throughout the site, with evidence in the form of nests and individual Dormice. The majority of individuals animals were found along the south-western boundary within secondary woodland forming compartment **W8** and with further evidence on the boundary of Lake Wood, in woodland areas **W4c** (Budletts Wood) and in woodland areas **W6** and **W6a** (Longwood Gill). The second set of surveys undertaken in 2020 confirmed the continued presence of Dormouse, with occasional evidence in the form of nests, recorded in Hedgerow **H1**, woodland section **W4d** and in the south-western corner of the site.

5.5.6 **Evaluation:** Based on recorded occurrence, it is likely that the woodland areas along the western boundary and the tree line on the southern, which connects to the offsite woodland within the LWS Lake Wood, forms the main area of habitat for Dormouse within the site. The other existing habitats are scattered within the site, comprising scrub, singular hedgerow and woodland blocks surrounding the open grassland. Given the presence of a well-connected woodland and hedgerow network across the site, it is likely Dormouse widely present, albeit at relatively low densities throughout the site.

5.5.7 Sussex is located within the core distribution area for Dormouse, and the species is relatively widespread across the county[35], and in the context of surrounding habitats, with a well

[35] Mammal Watch South East (2015) *South East Mammal Atlas: covering Hampshire, Surrey, Sussex, Kent and the Isle of Wight*

established network of hedgerows, treelines and wooded areas in the wider landscape, the loss of these specific habitats are unlikely to be of high significance for the local population.

5.5.8 As such, the population supported by the site is considered to be of importance at the **local** level.

5.6 Water Vole

5.6.1 **Legislation.** Water Vole is fully protected under the Wildlife and Countryside Act 1981 (as amended). Water Vole is also a S41 Priority Species. As such, this species is considered to represent an important ecological feature. The legislation affords protection to individuals of the species and their breeding sites and places of shelter (see Annex 5719/2 for detailed provisions). There is no provision under the Act for licensing what would otherwise be offences for the purpose of development. Such activities must be covered by the defence in the Act that permits otherwise illegal actions if they are the incidental result of a lawful operation and could not reasonably be avoided.

5.6.2 If, despite all reasonable efforts, properly authorised development will adversely affect Water Vole and there are no alternative habitats nearby, Natural England may issue a licence to trap and translocate Water Vole for the purpose of conservation. To issue such a licence, Natural England would need to be assured there is no reasonable alternative to the dev[redacted]Water Vole to b[redacted]tions would ma[redacted]

5.6.3 **Bac**[redacted]urned from the[redacted]oted in the adj[redacted]ds of Water Vol[redacted]1.5km west of t[redacted]

5.6.4 **Sur**[redacted] unsuitable for [redacted]nd setting.

5.6.5 No evidence of Water Vole was found during the specific survey work undertaken and as such this species is unlikely to be affected by the proposals. As such, the site is not considered to be of importance for this species.

5.7 Otter

5.7.1 **Legislation.** Otter is fully protected under the Wildlife and Countryside Act 1981 (as amended) and is a European Protected Species under the Conservation of Habitats and Species Regulations 2017 (as amended). Such legislation affords protection to individuals of the species and their breeding sites and places of rest (see Annex 5719/2 for detailed provisions). Otter is also a S41 Priority Species. On this basis, Otter is considered to represent an important ecological feature.

5.7.2 **Background Records.** No specific records of Otter were returned from the desktop study (SxBRC does not provide records of Otter as part of its data search). The desktop study states that there are no recent breeding otter records in Sussex.

5.7.3 **Survey Results and Evaluation.** The habitats within the site itself are generally unsuitable for Water Vole, mostly comprising shallow ephemeral streams within a woodland setting.

5.7.4 No evidence of Otter was found during the specific survey work undertaken and this species is unlikely to be affected by the proposals. As such, the site is not considered to be of importance for this species.

5.8 Other Mammals

5.8.1 **Legislation.** A number of other UK mammal species do not receive direct legislative protection relevant to development activities but may receive protection against acts of cruelty (e.g. under the Wild Mammals (Protection) Act 1996). In addition, a number of these mammal species are S41 Priority Species and should be assessed as important ecological features.

5.8.2 **Background Records.** No specific records of other mammals from within or adjacent to the site were returned from the desktop study. A number of records of Hedgehog *Erinaceus europaeus* (Priority Species) was returned from within the search area around the site, with the closest record noted in LWS Lake Wood, dated to 2006. In addition, two records of European Rabbit *Oryctolagus cuniculus* were recorded along the A22 in July 2020, located 0.8km north of the site boundary.

5.8.3 **Survey Results and Evaluation.** No evidence of any other protected, rare or notable ma[redacted]utilise the site[redacted]text, and as me[redacted]nt context. As [redacted]f potential opp[redacted]

5.8.4 The[redacted]nding area. Hed[redacted]espread in Eng[redacted]he form of are[redacted]s, although hab[redacted]nsidered to be [redacted] under the pro[redacted] local area and there is no evidence to suggest the proposals will significantly affect local populations of this species. However, it is recommended that precautionary safeguards are put in place to minimise the risk of harm to Hedgehog in the event this species is present, as detailed in Chapter 6 below.

5.9 Amphibians

5.9.1 **Legislation.** All British amphibian species receive a degree of protection under the Wildlife and Countryside Act 1981 (as amended). Great Crested Newt is protected under the Act and is also classed as a European Protected Species under the Conservation of Habitats and Species Regulations 2017 (as amended). As such, both Great Crested Newt and habitats utilised by this species are afforded protection (see Annex 5719/2 for detailed provisions). Great Crested Newt is also a S41 Priority Species, as are Common Toad *Bufo bufo*, Natterjack Toad *Epidalea calamita*, and Pool Frog *Pelophylax lessonae*. As such, these species should be assessed as important ecological features.

5.9.2 **Background Records.** No specific records of Great Crested Newt from within the site were returned from the desktop study. Three records of Great Crested Newt were returned from the LWS Lake Wood, adjacent to the site on the southern boundary, with the most recent record dated to 2006. The other records returned from within the 2km search area

comprised Common Frog *Rana temporaria*, Common Toad, Palmate Newt *Lissotriton* helveticus and Smooth Newt *Lissotriton vulgaris*.

5.9.3 **Survey Results**

5.9.4 **Habitat Suitability Index (HSI).** As discussed at section 4.9 previously, a number of ponds have been identified on site and within close proximity to the site, three of which, ponds **P7**, **P9** and **P10**, are adjacent to Snatts Road, near to the eastern boundary of the site, whilst **P8** is south of the site located within Lake Wood LWS, and **P22** within Fir Tree Grove, outside the red line. An initial appraisal of each pond was made using the HSI system to identify potential suitability to support Great Crested Newt, see Table 5.7, below.

Table 5.7. HSI survey results.

Pond	Suitability Indices										HSI Score	Suitability
	SI 1 Location	**SI 2** Pond Area	**SI 3** Pond Drying	**SI 4** Water Quality	**SI 5** Shade	**SI 6** Water Fowl	**SI 7** Fish	**SI 8** Ponds	**SI 9** Terrestrial Habitat	**SI 10** Macrophytes		
Onsite Ponds												
P1	[redacted]										-	*Dry at time of HSI*
P2											**0.74**	*Good*
P3											**0.58**	*Below Average*
P4											**0.48**	*Poor*
P5											**0.54**	*Below Average*
P6											**0.63**	*Average*
Offsite Ponds												
P7	-	-	-	-	-	-	-	-	-	-	-	*No Access Granted*
P8	1	0.8	0.9	1	1	0.67	0.33	1	1	0.7	**0.80**	*Excellent*
P9	-	-	-	-	-	-	-	-	-	-	-	*Dry at time of HSI*
P10	-	-	-	-	-	-	-	-	-	-	-	*No Access Granted*
P20	1	0.1	1	0.33	0.4	1	1	1	1	0.35	0.58	*Below Average*
P22	1	0.3	1	0.33	1	0.67	0.67	1	1	0.5	1	*Average*

5.9.5 **Environmental eDNA Surveys.** Due to the potentially suitable terrestrial habitat within the site and the favourable HSI scores, specific Great Crested Newt survey work was undertaken on ponds **P2** to **P6**, **P8 and P22** (ie. those ponds within 250m of the proposed Development) using the eDNA survey technique.

5.9.6 Samples were taken during May 2020 (all ponds except for **P22**), and April 2022 (in the case of Pond **P22**).

5.9.7 The results of the surveys are summarised in Table 5.8 below.

Table 5.8. GCN eDNA survey results summary.

Pond Ref.	GCN Present	GCN eDNA score	Pond Location
P2	N	Negative	On site
P3	N	Negative	On site
P4	N	Negative	On site
P5	N	Negative	On site
P6	Y	Positive (score of 12)	On site
P8	N	Negative	Off site
P22	N	Negative	Off-site

5.9.8 **Population Size Class Assessment Surveys.** Following confirmation of the presence of GCN in Pond **P6**, further specific Great Crested Newt survey work was undertaken to determine the Population Size Class of the Population, using traditional survey techniques (bottle trapping, torch survey, egg searching . This is a proxy measure of the actual population size, and is information required for the submission of a GCN Mitigation Licence.

5.9.9 In addition, since it was not possible to take eDNA samples of Pond **P1** along with the other samples (it was dry at the time of the eDNA survey), the opportunity was taken to complete a presence/absence surveys and population size class assessment, along with another pond (**P2**[redacted]

5.9.10 Por[redacted]e 2022, the res[redacted]

Tab[redacted]

Pond Ref.	GCN Present	GCN Peak Count	GCN Population Size Class	Smooth Newt Peak Count	Palmate Newt Peak Count	Other amphibians	Fish
P1	Y	-	Absent	6	10	Common Frog	X
[redacted]							**X**
P20	N	-	Absent	-	-	Common Frog	x
Summed across ponds		**30**	**Medium**				

5.9.11 **Evaluation.** A medium population of Great Crested Newt was recorded as present in pond **P6**, whilst the species was found to be absent from all other ponds surveyed within the site and the wider study area. It appears that the pond supports an isolated population, with few habitat connections and no other known populations within the surrounding area which might form a wider meta-population. The pond is in poor (and likely declining) condition. The status of ponds is shown at Plan 5719/ECO9.

5.9.12 This population is considered to be of ecological importance at the **local** level.

5.10 Reptiles

5.10.1 **Legislation**. All six species of British reptile are listed under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended), which protects individuals against intentional killing or injury. Sand Lizard *Lacerta agilis* and Smooth Snake *Coronella austriaca* receive additional protection under the Conservation of Habitats and Species Regulations 2017 (as amended); refer to Annex 5719/2 for detailed provisions. All six reptile species are also S41 Priority Species. As such, all reptile species should be assessed as important ecological features.

5.10.2 **Background Records.** Information returned from the SxBRC returned records for Grass Snake, Slow Worm, Adder *Vipera berus* and Common Lizard within the surrounding 2km search area. The closest records returned from the desktop study originate from LWS Lake Wood comprising Grass Snake, Common Lizard and Adder approximately 50m south of the site, dated to 2006.

5.10.3 **Survey Results.** Specific survey work for reptiles was undertaken at the site, the results of which are summarised in Table 5.10 below and illustrated on Plan 5719/ECO10.

Table 5.8. Reptile survey results summary.

Visit	Date	Common Lizard		Slow Worm		Grass Snake		Other Species
		Adult	Juv.	Adult	Juv.	Adult	Juv.	
1	22/06/2020	1	0	6	0	0	0	0
2	24/06/2020	1	0	6	0	0	0	0
3	27/06/2020	3	0	3	0	1	0	0
4	29/06/2020	1	0	5	1	0	0	0
5	01/07/2020	1	0	11	0	0	0	0
6	03/07/2020	10	0	7	1	0	1	0
7a	05/07/2020	1	0	8	0	0	4	0
7b	07/07/2020	0	0	1	0	0	7	0
Peak Count		**10**		**11**		**1**		**0**

5.10.4 **Eva** [redacted] 0 Common Liza [redacted] w numbers of i [redacted] **SI3** and **SI4**. A si [redacted]

5.10.5 The [redacted] re the peak cou [redacted] tion of two Cor [redacted] d as a 'low' pop [redacted] pulation of rep [redacted]

5.11 Birds

5.11.1 **Legislation.** All wild birds and their nests receive protection under Section 1 of the Wildlife and Countryside Act 1981 (as amended) in respect of killing and injury, and their nests, whilst being built or in use, cannot be taken, damaged or destroyed. Species included on Schedule 1 of the Act receive greater protection and are subject to special penalties (see Annex 5719/2 for detailed provisions).

5.11.2 **Conservation Status.** The conservation importance of British bird species is categorised based on a number of criteria including the level of threat to a species' population status[37]. Species are listed as Green, Amber or Red. Red Listed species are considered to be of the highest conservation concern being either globally threatened and or experiencing a high/rapid level of population decline (>50% over the past 25 years). A number of birds are

[36] Herpetofauna Groups of Britain and Ireland (1998) 'Evaluating local mitigation/translocation programmes: Maintaining Best Practice and lawful standards'

[37] Eaton MA, Aebischer NJ, Brown AF, Hearn RD, Lock L, Musgrove AJ, Noble DG, Stroud DA and Gregory RD (2015) *'Birds of Conservation Concern 4: the population status of birds in the United Kingdom, Channel Islands and the Isle of Man'* British Birds *108*, pp.708-746

also S41 Priority Species. Red and Amber listed species and priority species should be assessed as important ecological features.

5.11.3 **Background Records.** Information from the data search included records for several bird species in the vicinity of the site, including the Red Listed species Lesser Spotted Woodpecker *Dendrocopos mino,* Wood Warbler *Phylloscopus sibilatrix*, Nightjar *Caprimulgus europaeus*, Cuckoo *Cuculus canorus,* Turtle Dove *Streptopelia turtur*, Herring Gull *Larus argentatus* and Lapwing *Vanellus vanellus.* No records of bird species were returned from within the site itself.

5.11.4 **Survey Results.** The site offers a range of opportunities for bird species, particularly in the form of hedgerows, scrub and deciduous woodland, which offer foraging areas and potential nesting areas for a range of bird species. Accordingly, three breeding bird surveys were carried out at the site between April to June 2019.

5.11.5 A total of 39 bird species were recorded during the 2019 surveys, of which 24 were recorded to be breeding or probably breeding within the study area, whilst a further two were possibly breeding (i.e. habitat suitable to support the species is present) adjacent to the study area. The remaining 13 species were either breeding in adjacent areas, recorded as migrants or flying over the site, or represented only by non-breeding individuals.

5.11.6 A f[redacted]rded to be bre[redacted]ble species rec[redacted]

Tab[redacted]

Species	Birds of Conservation Concern listing	Priority species	No of breeding pairs recorded
[redacted]			

5.11.7 Based on the survey results, the study area is considered to support a relatively large assemblage of breeding birds, with generally high numbers of breeding pairs, with the majority of activity recorded associated with the deciduous woodlands. The most notable species recorded during the survey included eight breeding pairs of Song Thrush and three breeding pairs of Dunnock, along with one breeding pair of Bullfinch, most of which were recorded associated with woodland **W6** (Shermanreed Wood) in the centre of the site, with Song Thrush predominantly found in the northern woodlands **W3** and **W4**.

5.11.8 **Evaluation.** Most of the birds recorded at the site are not listed as having any special conservation status, although Song Thrush is included on the Red list as a result of declines in UK breeding populations and is also a Priority Species. However, the habitats present are common in the surrounding area and there is no evidence to suggest the site is of elevated value at a local level for this species, which in any case, is common in Great Britain[38]. On this basis, the assemblage of birds supported by the site is considered to be of importance at the local level.

[38] Population estimates of birds in Great Britain and the United Kingdom. Musgrove *et al*., British Birds, 2013

5.12 Invertebrates

5.12.1 **Legislation.** A number of invertebrate species are listed under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended). In addition, Large Blue Butterfly *Maculinea arion*, Fisher's Estuarine Moth *Gortyna borelii lunata* and Lesser Whirlpool Ram's-horn Snail *Anisus vorticulus* receive protection under the Conservation of Habitats and Species Regulations 2017 (as amended); refer to Annex 5719/2 for detailed provisions. A number of invertebrates are also S41 Priority Species. Where such species are present, they should be assessed as important ecological features.

5.12.2 **Background Records.** One record of invertebrates was returned from within the site, namely a single record for the nationally scarce *Dolichopus virgultorum* (A True Fly), dated from 2006, and located within the centre of the site. Records for the Priority Species White Admiral *Limenitis camilla* were noted within the eastern part of the site in 2007 (located on the margins of grassland area **SI4** site) with further records dating to 2010 to the east and south of the site.

5.12.3 **Survey Results and Evaluation.** No evidence for the presence of any protected, rare or notable invertebrate species was recorded within the site. The areas of the site which will be affected by development are dominated by open managed grassland which are likely to sup[redacted]ined under the[redacted]y contain a wid[redacted]

5.12.4 The[redacted]otential for inve[redacted]il, areas of spe[redacted]nt patches of t[redacted]e mortar or fibr[redacted]tent of the pro[redacted] significant har[redacted] site is not con[redacted]

5.13 Summary

5.13.1 On the basis of the above, a summary of the evaluation of fauna is provided below:

Table 5.10. Evaluation summary of fauna forming important ecological features.

Species / Group	Supported by or associated with the site	Level of Importance
Bats – Roosting	Potential habitat in the form of trees and buildings	**Local**
Bats – Foraging / Commuting	Confirmed presence on site	**District**
[redacted]	[redacted]	[redacted]
Dormouse	Confirmed presence on site	**Local**
Water Vole	Likely absent	**Negligible**
Otter	Likely absent	**Negligible**
Great Crested Newt	Confirmed presence within offsite ponds	**Local**
Reptiles	Confirmed presence on site	**Local**

[39] Natural England (2010) 'Higher Level Stewardship – Farm Environment Plan (FEP) Manual', 3rd Edition

Species / Group	Supported by or associated with the site	Level of Importance
Birds	Confirmed presence on site	**Site**

5.13.2 Other fauna supported by the site include non-priority species of mammals, amphibians and invertebrates. However, these species are not considered to form important ecological features.



6 Conclusions

6.1 Aspect Ecology has been commissioned to advise in respect of ecological matters relating to the land at Downlands Farm located to the west of Uckfield in East Sussex.

6.2 A desk study has been undertaken and the site surveyed based around extended Phase 1 methodology as recommended by Natural England. A general appraisal of faunal species has also been undertaken to record the potential presence of any protected, rare or notable species, with specific surveys conducted in respect of bats, Badger, Dormouse Otter, Water Vole, Great Crested Newt, reptiles and breeding birds. Detailed botanical surveys have been carried out for all woodland areas, together with other habitats of elevated ecological value.

6.3 **Ecological Designations.** The available information confirms that no statutory or non-statutory nature conservation designations are present within or adjacent to the site, although there are a number of designations in close proximity to the site, including the statutory site West Park, Uckfield Local Nature Reserve (LNR) located approximately 100m to the south of the site, and several non-statutory designations. Lake Wood Local Wildlife Site (LWS) is located immediately south of the site, whilst and Butchers Wood LWS is located approximately 35m to the west.

6.4 The [redacted] own Forest Spe[redacted] which are phy[redacted] rring to the con[redacted] ion in the Env[redacted] g.

6.4.1 The [redacted] ome of the targ[redacted] he site, and the[redacted] ortunity to con[redacted] uffer zones, and[redacted]

6.5 **Habitats**. The Phase 1 habitat survey has established that the site is dominated by two large grassland fields, surrounded by an interconnected network of woodland with a significant proportion being Ancient woodland. Longwood Gill and Shermanreed Wood are recognised as gill woodlands of district to county level importance whilst other Ancient Woodland is assessed as being of district importance. One area of grassland to the west of Snatts Road was found to be moderately species-rich.

6.6 A summary of habitats considered to form important ecological features within and adjacent to the site is given in Table 6.1 below:

Table 6.1. Evaluation summary of habitats forming important ecological features.

Habitat	Level of Importance
Ancient Woodland (Longwood Gill and Shermanreed Wood)	**District-County**
Ancient Woodland (Other Areas)	**District**
Other Woodland (Priority Habitat)	**Local**
Veteran Trees	**District**
Moderately Species-Rich Grassland (off Snatts Road)	**Local**
Hedgerows and Tree Lines	**Local**
Ponds	**Local**
Watercourses	**Local**

6.7 **Faunal Species**. The habitats within the site support several protected species, including species protected under both national and European legislation including bats, Dormouse, Great Crested Newt and reptiles. A summary of species considered to form important ecological features which are supported by or associated with the site and its immediate sur[redacted]

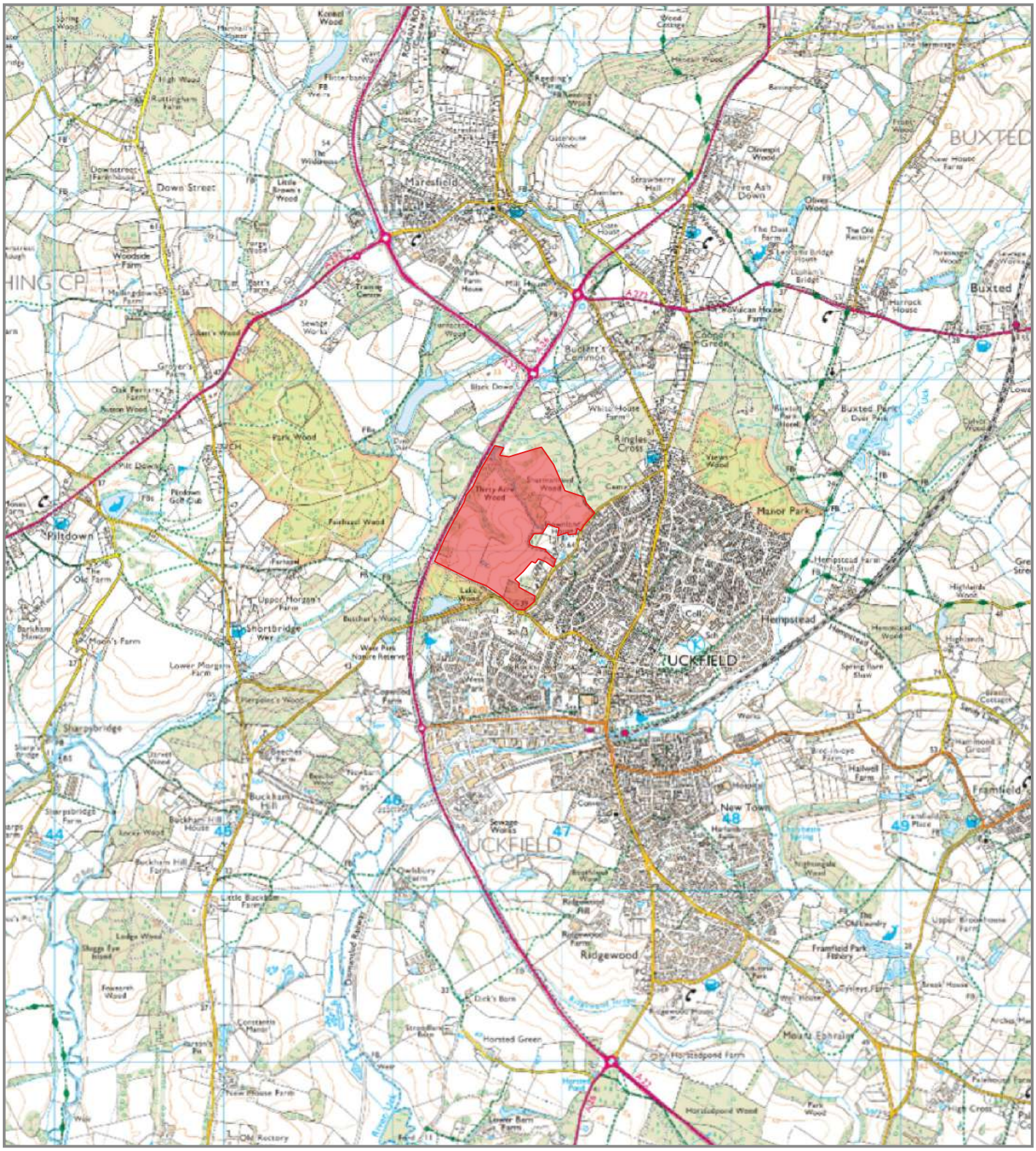
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Species / Group	Supported by or associated with the site	Level of Importance
[redacted] Bats – Roosting	Potential habitat in the form of trees and buildings	[redacted] Local
Bats – Foraging / Commuting	Confirmed presence on site	District
[redacted]	[redacted]	[redacted]
[redacted] Dormouse	Confirmed presence on site	Local
[redacted] Great Crested Newt	Confirmed presence within **P6**	Local
Reptiles	Confirmed presence on site	**Local**

6.8 **Conclusion.** The information in this report provides details of the ecological baseline position at the site, setting out the habitat types and species present and evaluating their ecological importance in the context of the site. The information in this report is considered to provide a sound ecological baseline, which can be utilised to inform any future proposals relating to the site.

Plan 5719/ECO1:

Site Location



Key:

Site Boundary

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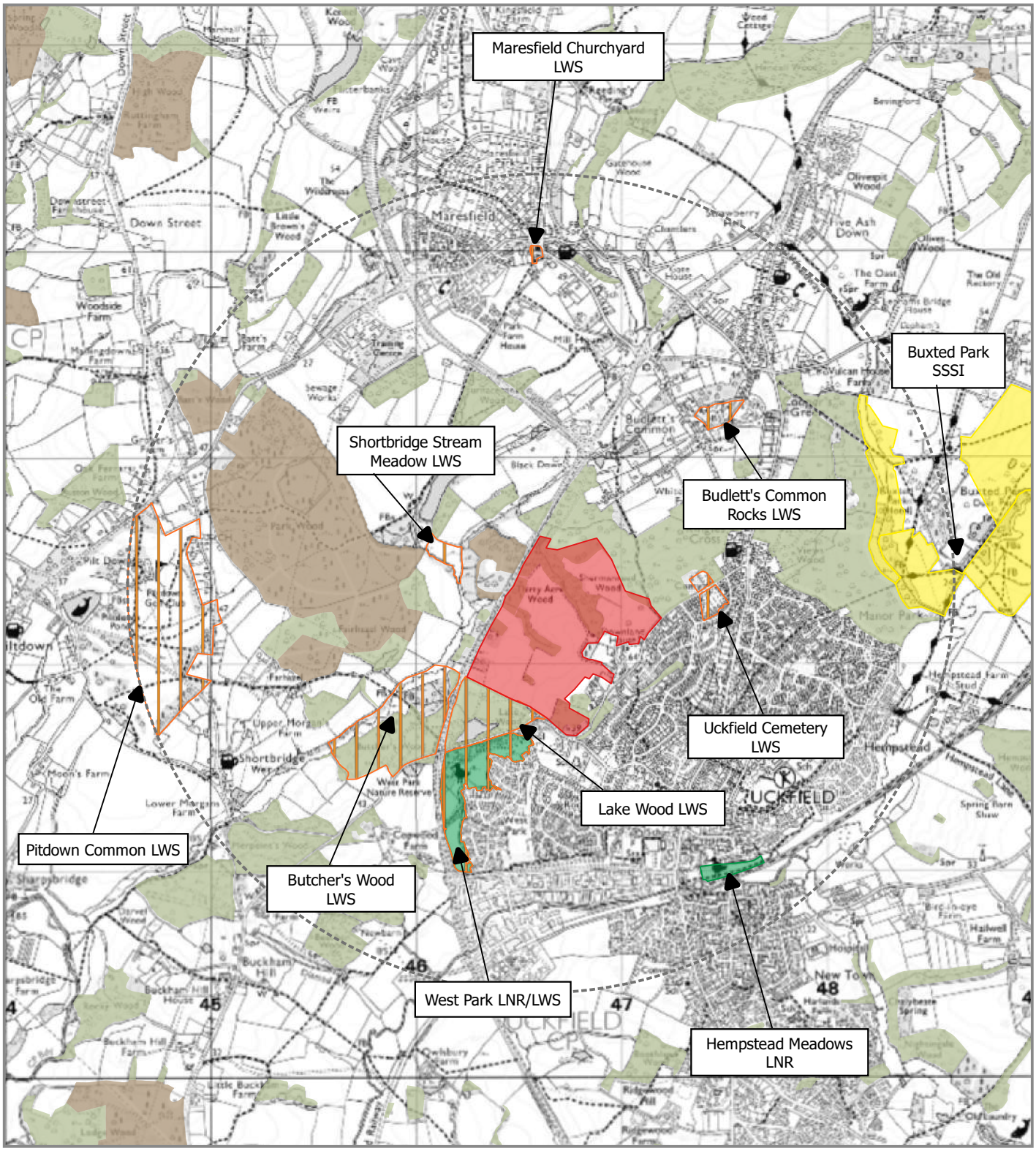
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Downlands Farm, Uckfield	PROJECT
Site Location	TITLE
5719/ECO1	DRAWING NO.
JW/2	REV
January 2022	DATE

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Plan 5719/ECO2:

Ecological Designations



Key:

- Site Location
- Sites of Special Scientific Interest (SSSI)
- Local Nature Reserves (LNR)
- Local Wildlife Sites (LWS)
- Ancient & Semi-Natural Woodland
- Ancient Replanted Woodland
- 2km buffer

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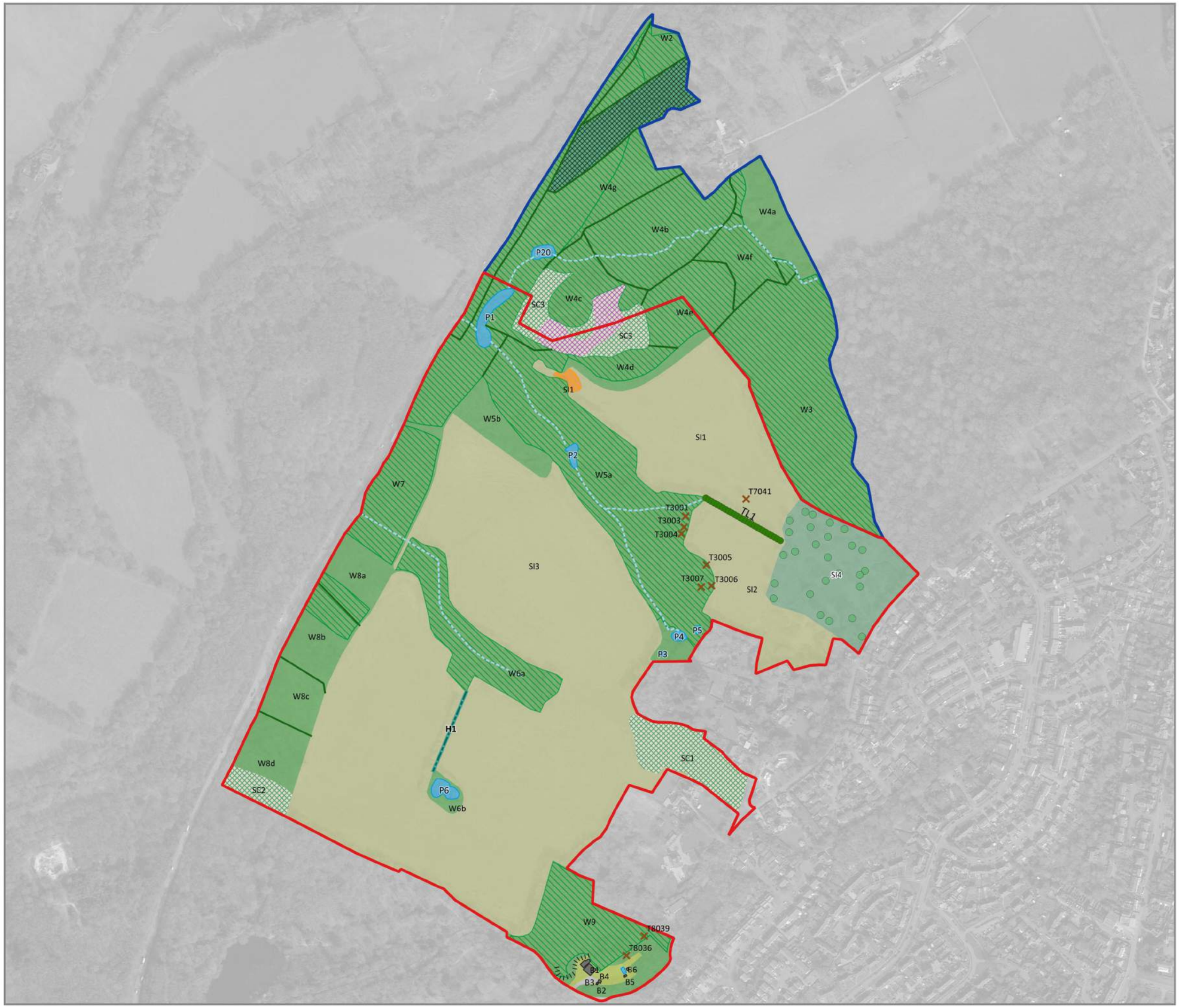
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Downlands Farm, Uckfield	PROJECT
Ecological Designations	TITLE
5719/ECO2	DRAWING NO.
JW/2	REV
Month 2021	DATE

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Plan 5719/ECO3:

Habitats and Ecological Features



Key:

- Site Boundary
- Study Area
- Ancient Woodland
- Non-ancient Woodland
- Woodland Borders
- Scattered Trees
- Tree
- Veteran Tree
- Tree Line
- Hedgerow
- Semi-improved Grassland (Species-poor)
- Semi-improved Grassland (Moderately Species-rich)
- Amenity Grassland
- Tall Ruderal Vegetation
- Heathland / Woodland Mosaic
- Scrub
- Bracken
- Pond
- Dry Pond
- Ephemeral Watercourse
- Rock Exposures
- Building
- Hardstanding

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Land at Downlands Farm. Uckfield — PROJECT

Habitats and Ecological Features — TITLE

5719/ECO3 — DRAWING NO.

A/JP — REV

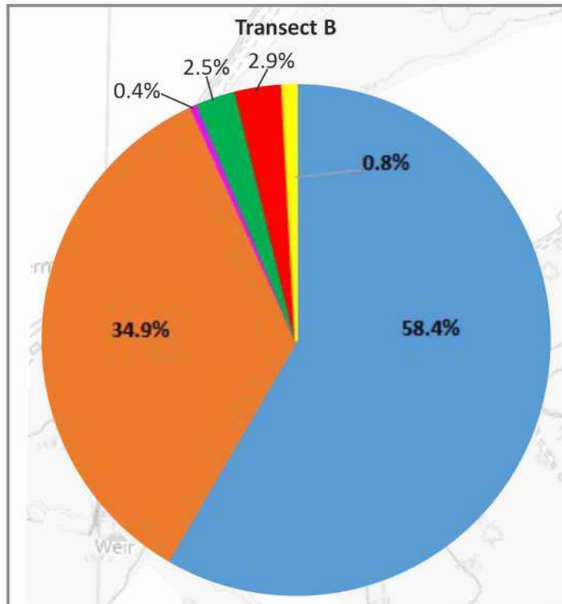
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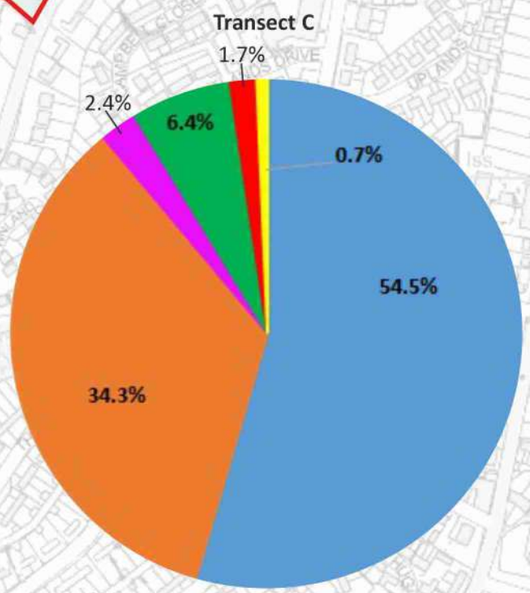
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Plan 5719/ECO4:

Bat Activity Survey Results (Walked Transect)





Key:

- Site Boundary
- Wider Study Area

Manual Bat Activity Survey*

- Transect Route B
- Transect Route C

Bat Activity Index**

At Listening Stops

- None (0 registrations per min)
- Lowest (0.01-0.5 registrations per min)
- Moderate (0.51-1.0 registrations per min)
- Highest (1.1+ registrations per min)

Between Listening Stops

- None (0 registrations per min)
- Lowest (0.01-0.5 registrations per min)
- Moderate (0.51-1.0 registrations per min)
- Highest (1.1+ registrations per min)

Proportion of total registrations

- Common Pipistrelle
- Soprano Pipistrelle
- Pipistrelle Species
- Long-eared Bat Species
- Big Bat Species
- Myotis Species

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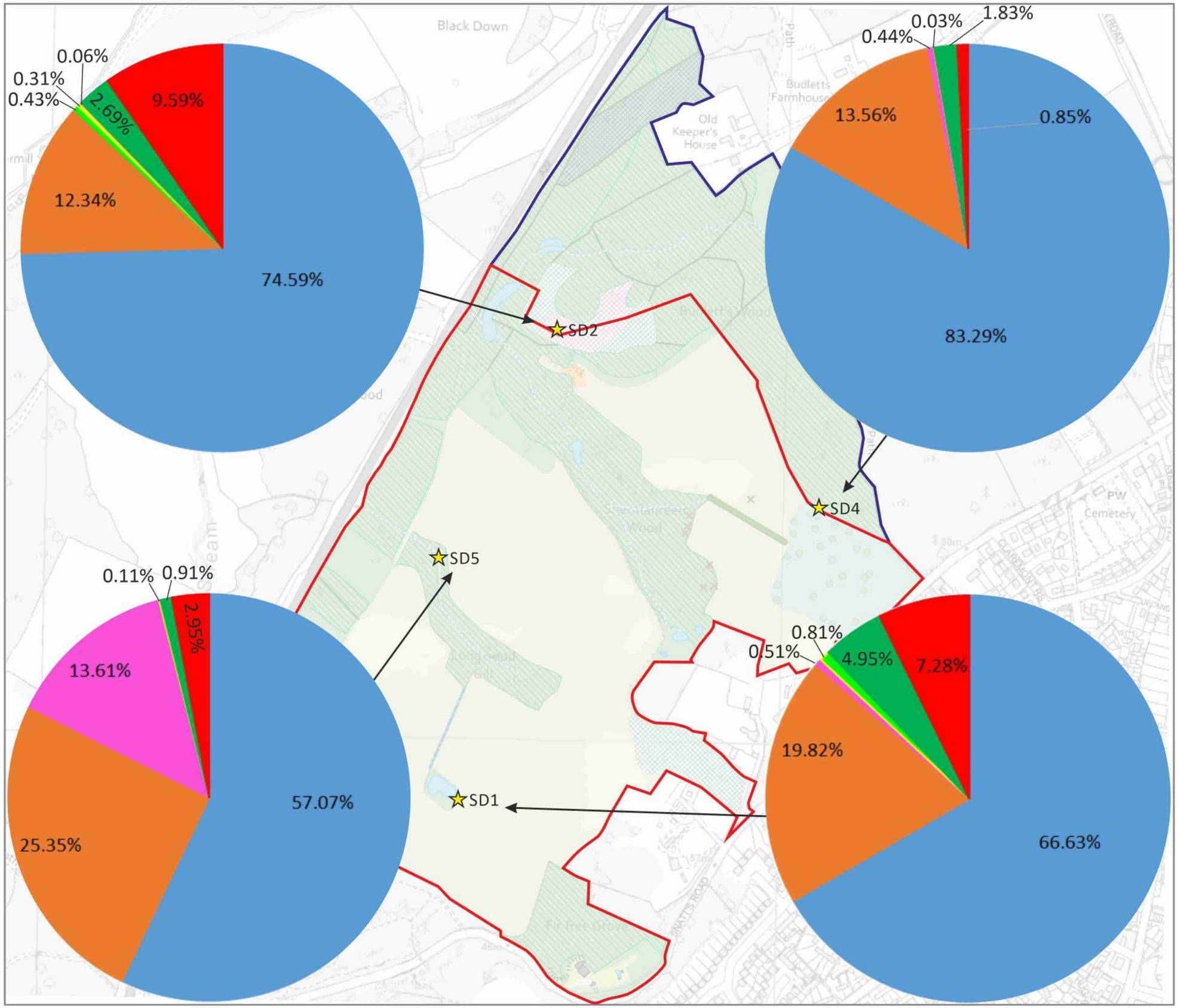
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Land at Downlands Farm, Uckfield	PROJECT
Bat Activity Survey Results	TITLE
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Plan 5719/ECO5:

Bat Activity Survey Results (Automated Detector)



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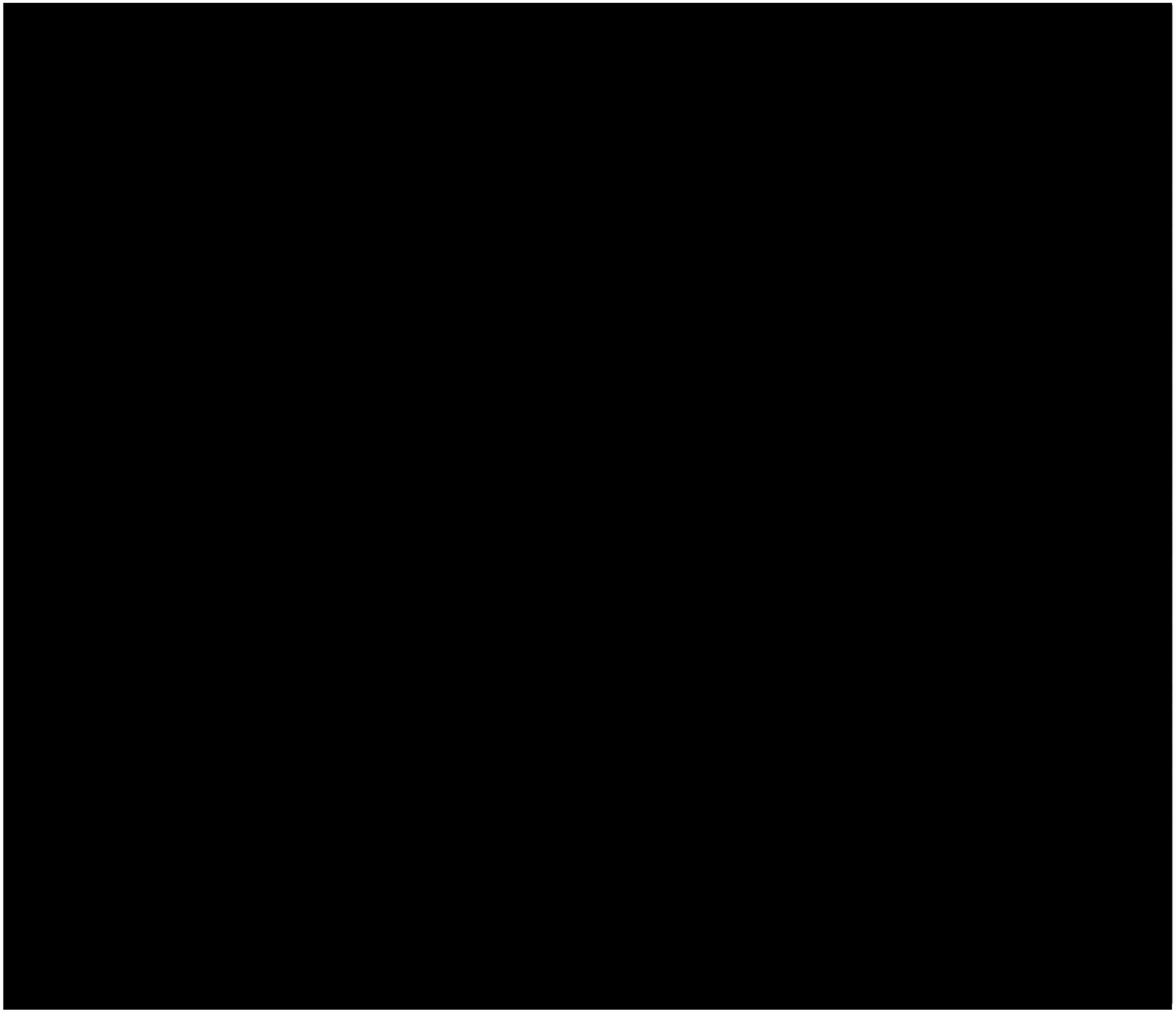
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Land at Downlands Farm, Uckfield	PROJECT
Bat Static Survey Results and Locations	TITLE
5719/ECO5	DRAWING NO.
A	REV.
May 2022	DATE

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Plan 5719/ECO6:

[redacted]



Key:

- Site Boundary
- Wider Study Area
- Main Sett (Active)
- Outlier Sett (Active)
- Outlier Sett (Disused)
- Other field signs (footprints/foraging signs)

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Land at Downlands Farm, Uckfield	PROJECT
Badger Survey Results	TITLE
5719/ECO6	DRAWING NO.
A	REV.
May 2022	DATE

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Plan 5719/ECO7:

Breeding Birds Survey Results

Bird Species Key:

- B — Blackbird
- BC — Black Cap
- BT — Blue Tit
- BF — Bullfinch
- BZ — Buzzard
- C — Carrion Crow
- CC — Chiffchaff
- CH — Chaffinch
- CT — Coal Tit
- D — Dunnock
- GC — Goldcrest
- GS — Great Spotted Woodpecker
- GT — Great Tit
- J — Jay
- JD — Jackdaw
- LT — Long-tailed Tit
- MG — Magpie
- NH — Nuthatch
- R — Robin
- ST — Song Thrush
- TC — Treecreeper
- WH — Whitethroat
- WP — Wood Pigeon
- WR — Wren

KEY:

- Site Boundary
- Study Area
- Breeding / Probable Breeding (BOCC Red List)
- Breeding / Probable Breeding (BOCC Amber List Species)
- Breeding / Probable Breeding (BOCC Green List - Not Threatened)

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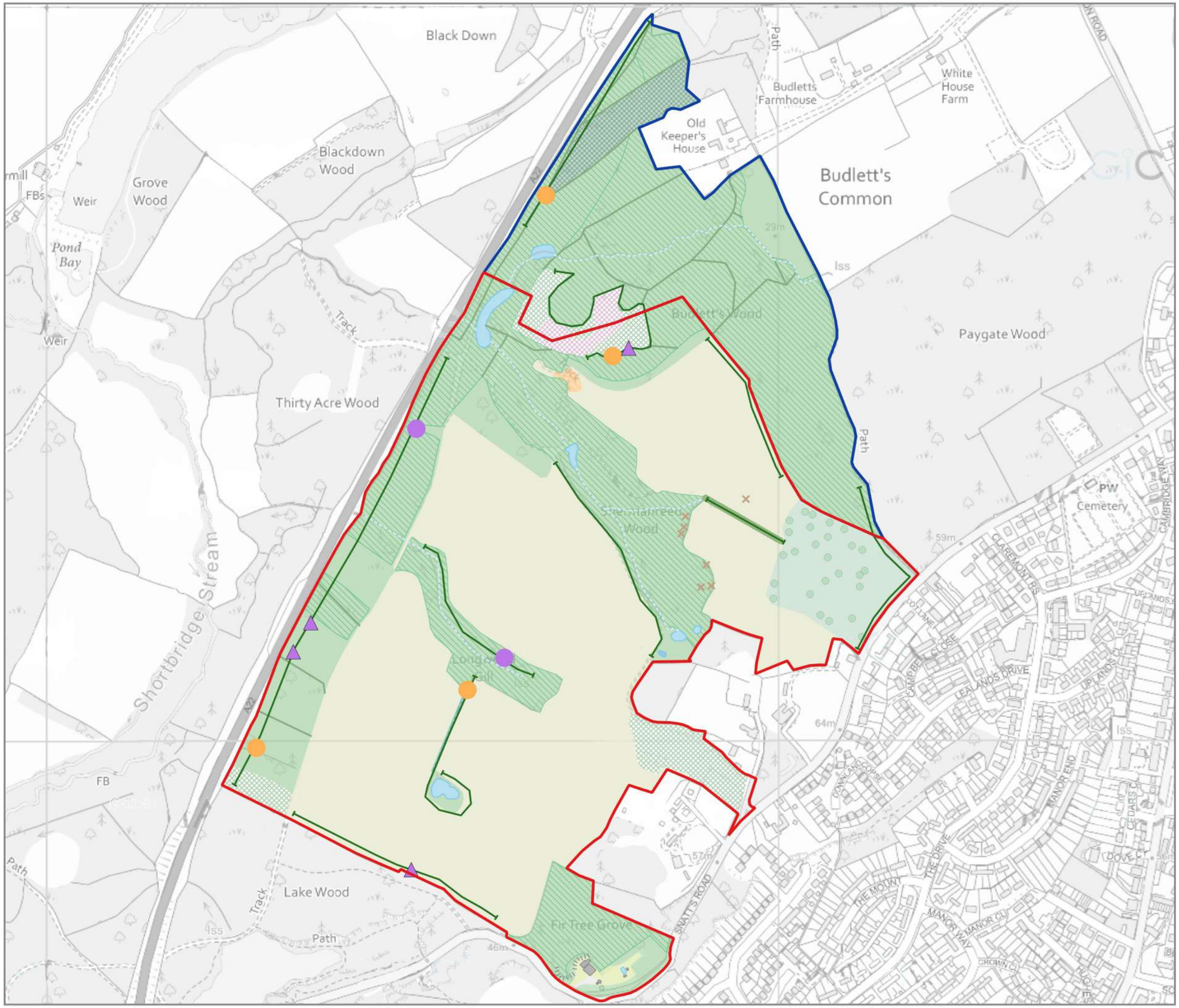
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Land at Downlands Farm, Uckfield	PROJECT
Breeding Bird Survey Results	TITLE
5719/ECO7	DRAWING NO.
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Plan 5719/ECO8:

Dormouse Survey Results



Key:

- Site Boundary
- Study Area
- Dormouse Transect with Number of Tubes

Dormouse Survey Results from 2019

- Dormouse Nest 2019
- Dormouse Observed in Nest 2019

Dormouse Survey Results from 2020

- Dormouse Nest 2020

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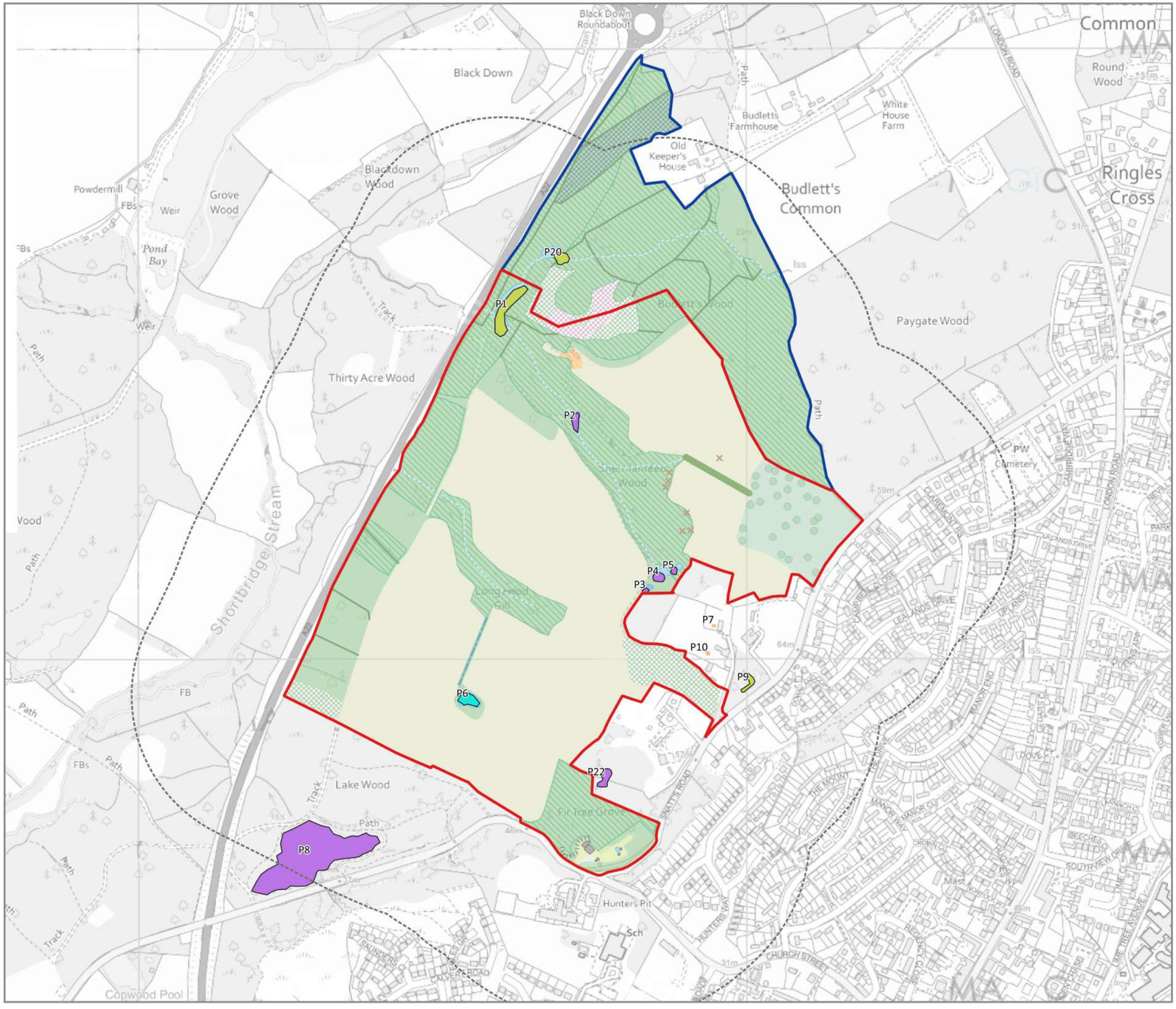
Land at Downlands Farm, Uckfield	PROJECT
Dormouse Survey Results	TITLE
5719/ECO8	DRAWING NO.
B	REV
May 2022	DATE

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Plan 5719/ECO9:

Great Crested Newt Survey Results



Key:

- Site Boundary
- Study Area
- 250m Buffer

Great Crested Newt (GCN) Survey Results

- GCN Present in Pond
- GCN Absent from Pond
- Dry Pond
- No Access Granted for Surveys

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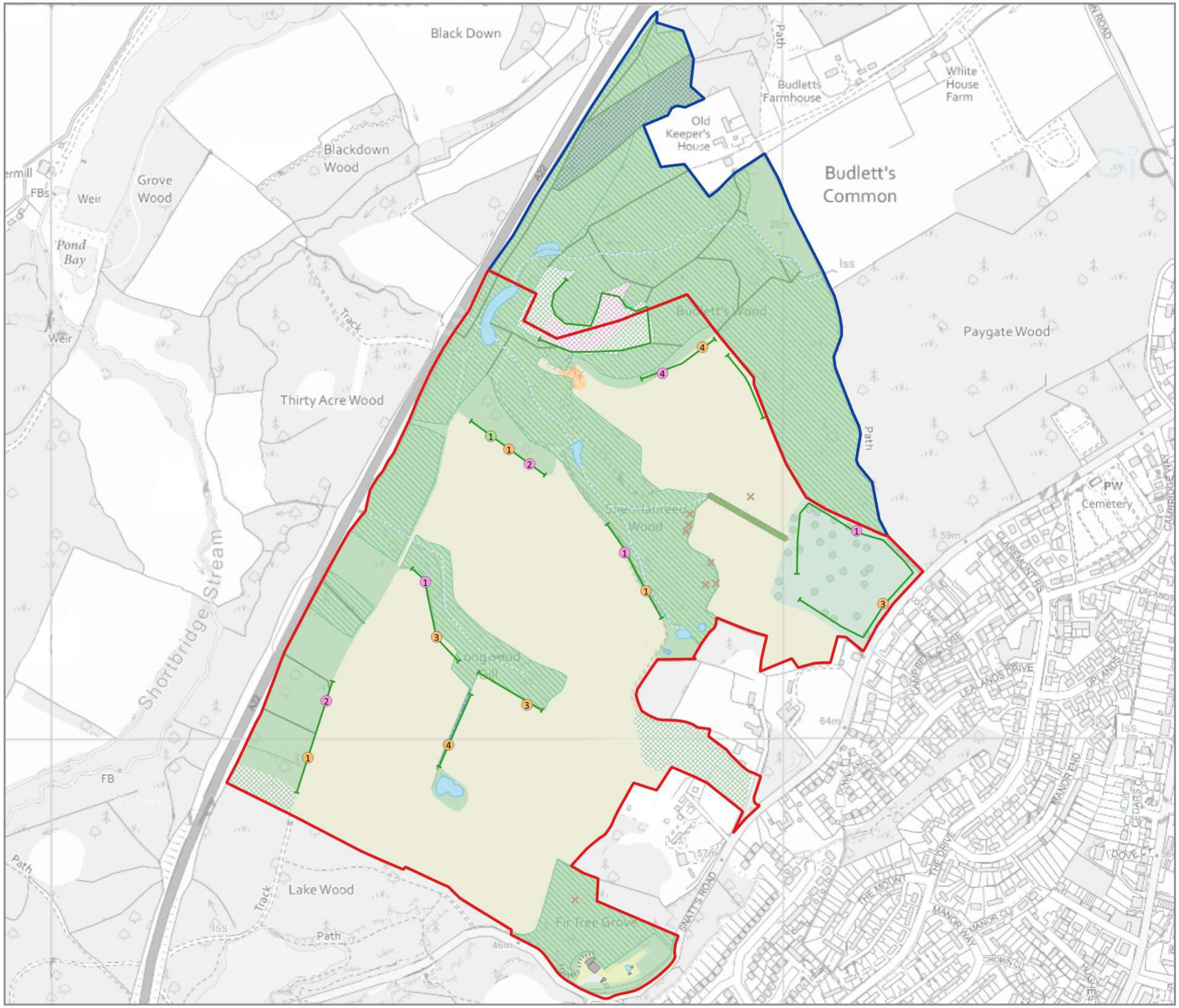
Land at Downlands Farm, Uckfield	PROJECT
Great Crested Newt Survey Results	TITLE
5719/ECO9	DRAWING NO.
B	REV
May 2022	DATE

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Plan 5719/ECO10:

Reptile Survey Results



Key:

- Site Boundary
- Study Area
- Reptile Transect Reference

Peak Count of Reptiles Recorded per Transect

- 1 Adult Common Lizard
- 1 Adult Grass Snake
- 1 Adult Slow Worm

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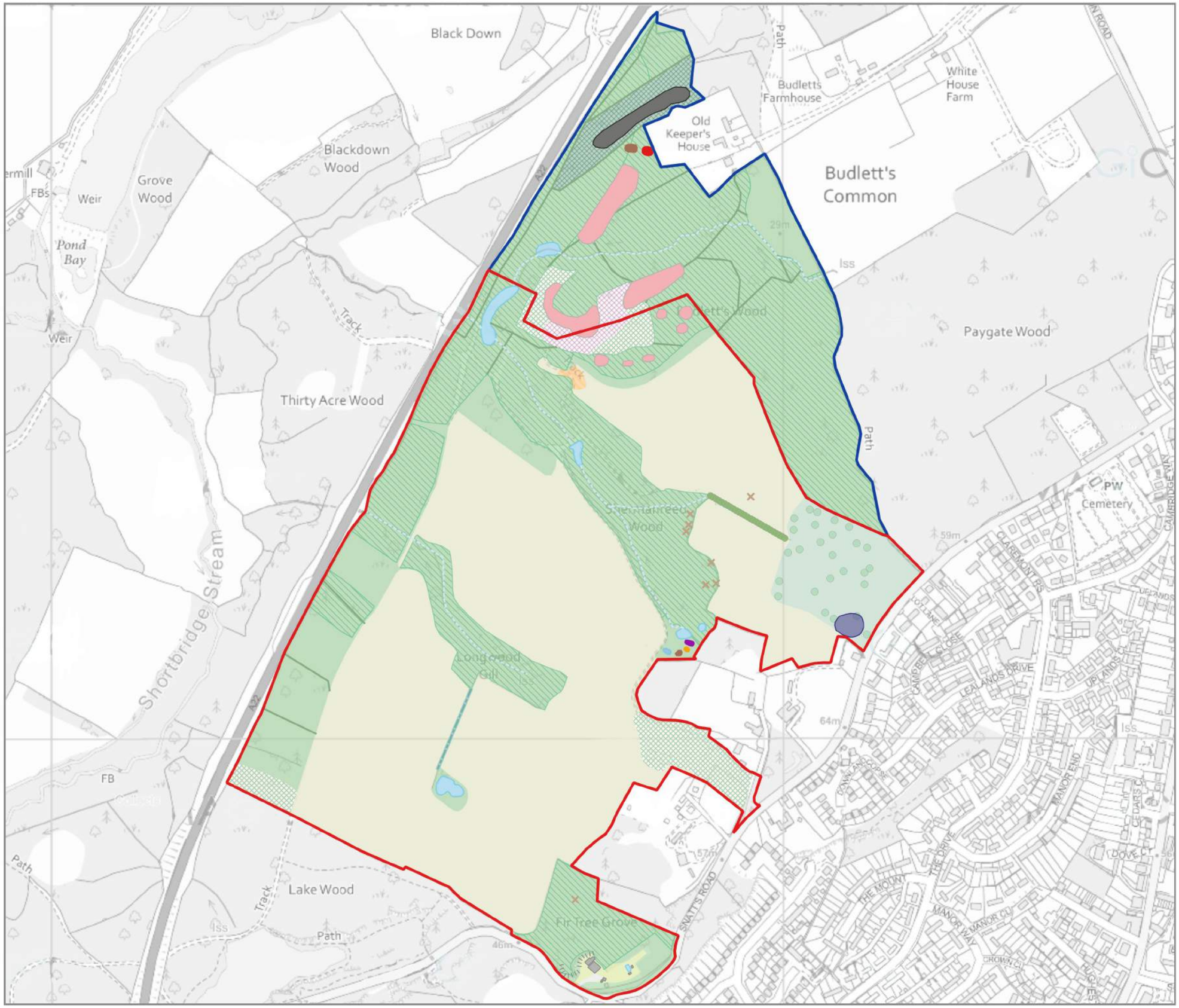
Land at Downlands Farm, Uckfield	PROJECT
Reptile Survey Results	TITLE
5719/ECO10	DRAWING NO.
B	REV
May 2022	DATE

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Plan 5719/ECO11:

Invasive Plant Species Results



Key:

- Site Boundary
- Study Area

Schedule 9 Invasive Plant Species

- Rhododendron Scrub
- Shallon
- Japanese Knotweed
- Giant Rhubarb
- Variagated Yellow Archangel
- Himalayan Balsam

Other Invasive Plant Species

- Perwinkle and Wilson's Honeysuckle

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Land at Downlands Farm, Uckfield	PROJECT
Invasive Species Plan	TITLE
5719/ECO11	DRAWING NO.
B	REV
June 2022	DATE

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Annex 5719/1:

Evaluation Methodology

Evaluation Methodology

1. The evaluation of ecological features and resources is based on professional judgement whilst also drawing on the latest available industry guidance and research. The approach taken in this report is based on that described by the Chartered Institute of Ecology and Environmental Management (CIEEM) 'Guidelines for Ecological Impact Assessment in the UK and Ireland' (2018)[1].

Importance of Ecological Features

2. Ecological features within the site/study area have been evaluated in terms of whether they qualify as 'important ecological features'. In this regard, CIEEM guidance states that *"it is not necessary to carry out detailed assessment of features that are sufficiently widespread, unthreatened and resilient to project impacts and will remain viable and sustainable".*

3. Various characteristics contribute to the importance of ecological features, including:

- Naturalness;
- Animal or plant species, sub-species or varieties that are rare or uncommon, either internationally, nationally or more locally, including those that may be seasonally transient;
- Ecosystems and their component parts, which provide the habitats required by important species, populations and/or assemblages;
- Endemic species or locally distinct sub-populations of a species;
- Habitat diversity;
- Habitat connectivity and/or synergistic associations;
- Habitats and species in decline;
- Rich assemblages of plants and animals;
- Large populations of species or concentrations of species considered uncommon or threatened in a wider context;
- Plant communities (and their associated animals) that are considered to be typical of valued natural/semi-natural vegetation types, including examples of naturally species-poor communities; and
- Species on the edge of their range, particularly where their distribution is changing as a result of global trends and climate change.

4. As an objective starting point for identifying important ecological features, European, national and local governments have identified sites, habitats and species which form a key focus for biodiversity conservation in the UK, supported by policy and legislation. These are summarised by CIEEM guidance as follows:

Designated Sites

- Statutory sites designated or classified under international conventions or European legislation, for example World Heritage Sites, Biosphere Reserves, Wetlands of International Importance (Ramsar sites), Special Areas of Conservation (SAC), Special Protection Areas (SPA);

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

- Statutory sites designated under national legislation, for example Sites of Special Scientific Interest (SSSI), National Nature Reserves (NNR) and Local Nature Reserves (LNR);
- Locally designated wildlife sites, e.g. Local Wildlife Sites (LWS).

Biodiversity Lists

- Habitats and species of principal importance for the conservation of biodiversity in England and Wales (largely drawn from UK BAP priority habitats and priority species), often referred to simply as Priority Habitats / Species;
- Local BAP priority species and habitats.

Red Listed, Rare, Legally Protected Species

- Species of conservation concern, Red Data Book (RDB) species;
- Birds of Conservation Concern;
- Nationally rare and nationally scarce species;
- Legally protected species.

5. In addition to this list, other features may be considered to be of importance on the basis of local rarity, where they enable effective conservation of other important features, or play a key functional role in the landscape.

<u>Assigning Level of Importance</u>

6. The importance of an ecological feature should then be considered within a defined geographical context. Based on CIEEM guidance, the following frame of reference is used:

- International (European);
- National;
- Regional;
- County;
- District;
- Local (e.g. Parish or Neighbourhood);
- Site (not of importance beyond the immediate context of the site).

7. Features of 'local' importance are those considered to be below a district level of importance, but are considered to appreciably enrich the nature conservation resource or are of elevated importance beyond the context of the site.

8. Where features are identified as 'important' based on the list of key sites, habitats and species set out above, but are very limited in extent or quality (in terms of habitat resource or species population) and do not appreciably contribute to the biodiversity interest beyond the context of the site, they are considered to be of 'site' importance.

9. In terms of assigning the level of importance, the following considerations are relevant:

Designated Sites

10. For designated sites, importance should reflect the geographical context of the designation (e.g. SAC/SPA/Ramsar sites are designated at the international level whereas SSSIs are designated at the national level). Consideration should be given to multiple designations as appropriate (where an area is subject to differing levels of nature conservation designations).

Habitats

11. In certain cases, the value of a habitat can be measured against known selection criteria, e.g. SAC selection criteria, 'Guidelines for the selection of biological SSSIs' and the Hedgerows Regulations 1997. However, for the majority of commonly encountered sites, the most relevant habitat evaluation will be at a more localised level and based on relevant factors such as antiquity, size, species-diversity, potential, naturalness, rarity, fragility and typicalness (Ratcliffe, 1977). The ability to restore or re-create the habitat is also an important consideration, for example in the case of ancient woodland.

12. Whether habitats are listed as priorities for conservation at a national level in accordance with Sections 41 and 42 of the Natural Environment and Rural Communities Act (NERC) 2006, so called 'Habitats of Principal Importance' or 'Priority Habitats', or within regional or local Biodiversity Action Plans (BAPs) is also relevant, albeit the listing of a particular habitat under a BAP does not in itself imply any specific level of importance.

13. Habitat inventories (such as habitat mapping on the MAGIC database) or information relating to the status of particular habitats within a district, county or region can also assist in determining the appropriate scale at which a habitat is of importance.

Species

14. Deciding the importance of species populations should make use of existing criteria where available. For example, there are established criteria for defining nationally and internationally important populations of waterfowl. The scale within which importance is determined could also relate to a particular population, e.g. the breeding population of common toads within a suite of ponds or an otter population within a catchment.

15. When determining the importance of a species population, contextual information about distribution and abundance is fundamental, including trends based on historical records. For example, a species could be considered particularly important if it is rare and its population is in decline. With respect to rarity, this can apply across the geographic frame of reference and particular regard is given to populations where the UK holds a large or significant proportion of the international population of a species.

16. Whether species are listed as priorities for conservation at a national level in accordance with Sections 41 and 42 of the Natural Environment and Rural Communities Act (NERC) 2006, so called 'Species of Principal Importance' or 'Priority Species', or within regional or local Biodiversity Action Plans (BAPs) is also relevant, albeit the listing of a particular species under a BAP does not in itself imply any specific level of importance.

17. Species populations should also be considered in terms of the potential zone of influence of the proposals, i.e. if the entire species population within the site and surrounding area were to be affected by the proposed development, would this be of significance at a local, district, county or wider scale? This should also consider the foraging and territory ranges of individual species (e.g. bats roosting some distance from site may forage within site whereas other species such as invertebrates may be more sedentary).

Annex 5719/2:

Legislation Summary

LEGISLATION SUMMARY

1. In England and Wales primary legislation is made by the UK Parliament, and in Scotland by the Scottish Parliament, in the form of Acts. The main piece of legislation relating to nature conservation in the UK is the Wildlife and Countryside Act 1981 (as amended).

2. Acts of Parliament confer powers on Ministers to make more detailed orders, rules or regulations by means of secondary legislation in the form of statutory instruments. Statutory instruments are used to provide the necessary detail that would be too complex to include in an Act itself[1]. The provisions of an Act of Parliament can also be enforced, amended or updated by secondary legislation.

3. In summary, the key pieces of legislation relating to nature conservation in the UK are:

    - Wildlife and Countryside Act 1981 (as amended)
    - Protection of Badgers Act 1992
    - Hedgerows Regulations 1997
    - Countryside and Rights of Way (CRoW) Act for England and Wales 2000
    - Natural Environment and Rural Communities Act 2006
    - Conservation of Habitats and Species Regulations 2017

4. A brief summary of the relevant legislation is provided below. The original Acts and instruments should be referred to for the full and most up to date text of the legislation.

5. **Wildlife and Countryside Act 1981 (as amended)**. The WCA Act provides for the notification and confirmation of Sites of Special Scientific Interest (SSSIs) identified for their flora, fauna, geological or physiographical features. The Act contains strict measures for the protection and management of SSSIs.

6. The Act also refers to the treatment of UK wildlife including protected species listed under Schedules 1 (birds), 5 (mammals, herpetofauna, fish, invertebrates) and 8 (plants).

7. Under Section 1(1) of the Act, all wild birds are protected such that is an offence to intentionally:

    - Kill, injure or take any wild bird;
    - Take, damage or destroy the nest of any wild bird whilst in use* or being built;
    - Take or destroy an egg of any wild bird.

    * The nests of birds that re-use their nests as listed under Schedule ZA1, e.g. Golden Eagle, are protected against taking, damage or destruction irrespective of whether they are in use or not.

8. Offences in respect of Schedule 1 birds are subject to special, i.e. higher, penalties. Schedule 1 birds also receive greater protection such that it is an offence to intentionally or recklessly:

    - Disturb any wild bird included in Schedule 1 while it is building a nest or while it is in, on or near a nest containing eggs or young;
    - Disturb dependent young of such a bird.

[1] http://www.parliament.uk/business/bills-and-legislation/secondary-legislation/statutory-instruments/

9. Under Section 9(1) of the Act, it is an offence to:

- Intentionally kill, injure or take any wild animal included in Schedule 5.

10. In addition, under Section 9(4) it is an offence to intentionally or recklessly:

- Obstruct access to, any structure or place which any wild animal included in Schedule 5 uses for shelter or protection; or
- Disturb any wild animal included in Schedule 5 while occupying a structure or place which it uses for that purpose.

11. Under Section 13(1) it is an offence:

- To intentionally pick, uproot or destroy any wild plant listed in Schedule 8; or
- Unless the authorised person, to intentionally uproot any wild plant not included in Schedule 8.

12. The Act also contains measures (S.14) for preventing the establishment of non-native species that may be detrimental to native wildlife, prohibiting the introduction into the wild of animals (releases or allows to escape) and plants (plants or causes to grow) listed under Schedule 9.

13. **Protection of Badgers Act 1992.** The Act aims to protect the species from persecution, rather than being a response to an unfavourable conservation status, as the species is in fact common over most of Britain. It should be noted that the legislation is not intended to prevent properly authorised development. Under the Act it is an offence to:

- Wilfully kill, injure, take, possess or cruelly ill-treat* a Badger, or attempt to do so;
- To intentionally or recklessly interfere with a sett# (this includes disturbing Badgers whilst they are occupying a sett, as well as damaging or destroying a sett or obstructing access to it).

* the intentional elimination of sufficient foraging area to support a known social group of Badgers may, in certain circumstances, be construed as an offence

\# A sett is defined as "*any structure or place which displays signs indicating current use by a Badger*". Natural England advice (June 2009) is that a sett is protected so long as such signs remain present, which in practice could potentially be for some time after the last actual occupation by Badger. Interference with a sett includes blocking tunnels or damaging the sett in any way

14. Licences can be obtained from the Statutory Nature Conservation Organisation (SNCO) for development activities that would otherwise be unlawful under the legislation, provided there is suitable justification. The SNCO for England is Natural England.

15. **Hedgerows Regulations 1997**. 'Important' hedgerows (as defined by the Regulations) are protected from removal (up-rooting or otherwise destroying). Various criteria specified in the Regulations are employed to identify 'important' hedgerows for wildlife, landscape or historical reasons.

16. **Countryside and Rights of Way (CRoW) Act for England and Wales 2000.** The CRoW Act provides increased measures for the management and protection of SSSIs and strengthens wildlife enforcement legislation. Schedule 12 of the Act amends the species provisions of the WCA 1981, strengthening the legal protection for threatened species. The Act also introduced a duty on Government to have regard to the conservation of biodiversity and maintain lists of species and habitats for which conservation steps should be taken or promoted, in accordance with the Convention on Biological Diversity.

17. **Natural Environment and Rural Communities Act 2006.** Section 41 of the NERC Act requires the Secretary of State to publish a list of habitats and species that are of principal importance for the conservation of biodiversity in England. The S41 list is used to guide decision-makers such as local planning authorities, in implementing their duty under Section 40 of the Act, to have regard to the conservation of biodiversity in England, when exercising their normal functions. 56 habitats and 943 species of principal importance are included on the S41 list. These are all the habitats and species in England that were identified as requiring action in the UK Biodiversity Action Plan (BAP).

18. **Conservation of Habitats and Species Regulations 2017 (as amended).** The Regulations enact the European Union's Habitats Directive (92/43/EEC) in the UK. The Habitats Directive was designed to contribute to the maintenance of biodiversity within member states through the conservation of sites, known in the UK as Special Areas of Conservation (SACs), containing habitats and species selected as being of EC importance (as listed in Annexes I and II of the Habitats Directive respectively). Member states are required to take measures to maintain or restore these natural and semi-natural habitats and wild species at a favourable conservation status.

19. The Regulations also require the compilation and maintenance of a register of European sites, to include SACs and Special Protection Areas (SPAs)[2] classified under Council Directive 79/409/EEC on the Conservation of Wild Birds (the Birds Directive). These sites constitute the Natura 2000 network. The Regulations impose restrictions on planning decisions likely to significantly affect SPAs or SACs.

20. The Regulations also provide protection to European Protected Species of animals that largely overlaps with the WCA 1981, albeit the provisions are generally stricter. Under Regulation 43 it is an offence, *inter alia*, to:

- Deliberately capture, injure or kill any wild animal of a European Protected Species;
- Deliberately disturb any wild animals of any such species, including in particular any disturbance likely to impair their ability to survive, to breed or reproduce, to rear or nurture their young, to hibernate or migrate, or which is likely to affect significantly their local distribution or abundance;
- Deliberately take or destroy the eggs of such an animal;
- Damage or destroy a breeding site or resting place of such an animal.

21. Similar protection is afforded to European Protected Species of plants, as detailed under Regulation 47.

22. The Regulations do provide a licensing system that permits otherwise illegal activities in relation to European Protected Species, subject to certain tests being fulfilled.

[2] Special Protection Areas (SPAs) are protected sites classified in accordance with Article 4 of the EC Directive on the Conservation of Wild Birds (79/409/EEC) (aka the Birds Directive), which came into force in April 1979. SPAs are classified for rare and vulnerable birds (as listed on Annex I of the Directive), and for regularly occurring migratory species.

Annex 5719/3:

Desktop Study Data

Important Information

PERMISSION

This report is valid until 14/08/2020

This report is for the internal use of Sam Kendray of Aspect Ecology (which includes the client where applicable) to inform understanding of the site of interest. This report must not be distributed or published for an external or public audience, for example within the appendix of a report. However, data from within this report may be referenced as long as the Sussex Biodiversity Record Centre is acknowledged.

The separate summary sheet may be published.

It must not be assumed that this report contains the definitive species and habitat information for the site concerned.

The species data held by the Sussex Biodiversity Record Centre (SxBRC) are collated from the biological recording community in Sussex. However, there are many areas of Sussex where the records held are limited, either spatially or taxonomically.

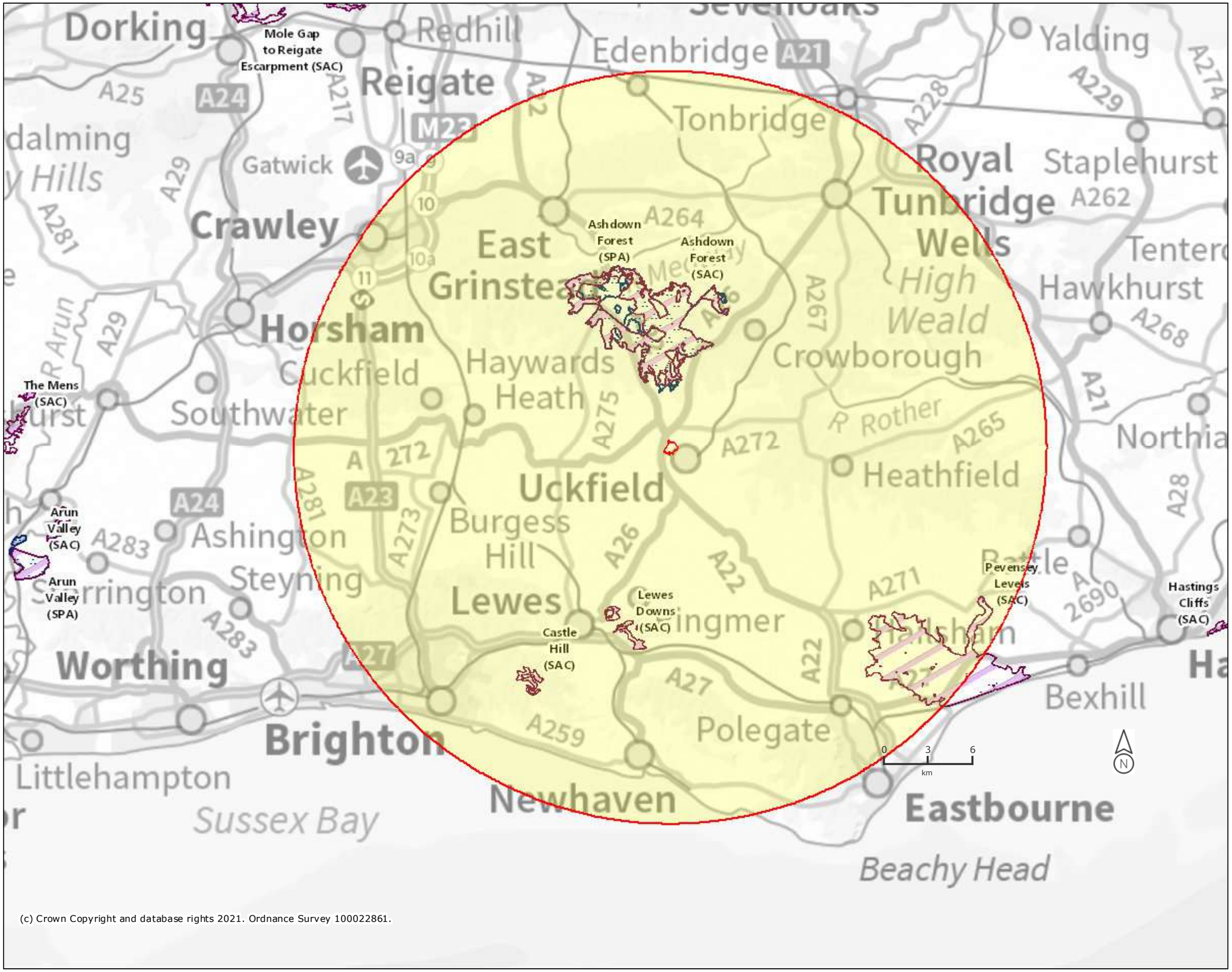
A data search from SxBRC will give the user a clear indication of what biological recording has taken place. The information provided is a useful tool for making an assessment of the site, but should be used in conjunction with site visits and appropriate surveys before further judgements on the presence or absence of key species or habitats can be made. It may be that the content of this report guides the reader as to which surveys should be carried out on the site.

This report was compiled using data held at SxBRC at the time of production. SxBRC takes data validation very seriously, but cannot be held responsible for the accuracy of data included in this report.

SxBRC operates as agent to the individuals and groups who provide their records free of charge. The data suppliers retain copyright on their data, while SxBRC retains copyright on its data search reports.

Impartiality
SxBRC functions as custodian of biological data. Our role is to collect, manage and disseminate wildlife and habitat data. As such, we have to remain impartial and cannot offer opinions on the biodiversity value of a given site. Similarly, we cannot put forward objections to planning applications or be involved in campaigns.

5719 - MAGIC 25km European Statutory European Designations



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Legend

- Special Areas of Conservation (England)
- Special Protection Areas (England)

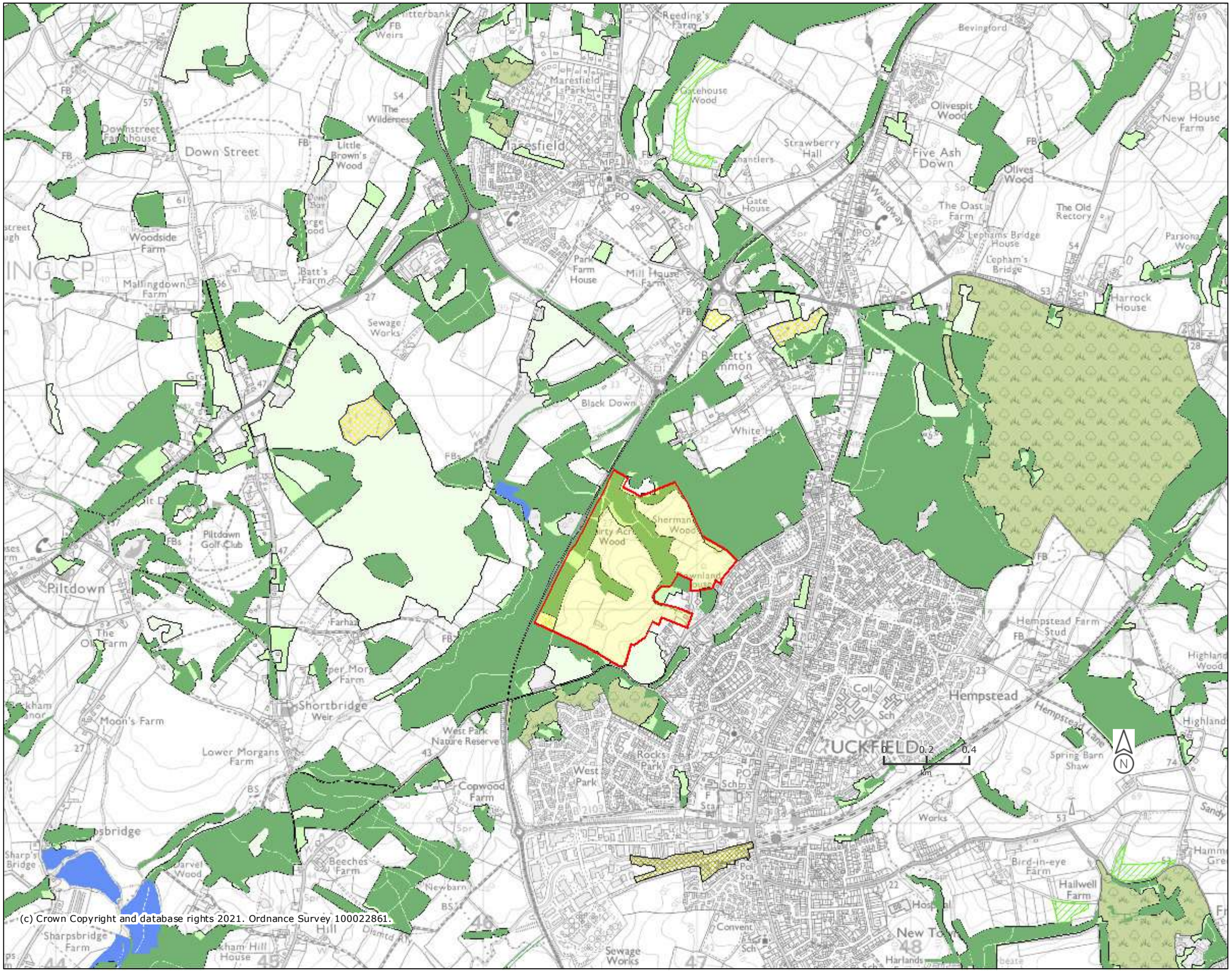
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km

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5719 - MAGIC Priority Habitat and Other Woodland



Legend

- Priority Habitat Inventory - Coastal and Floodplain Grazing Marsh (England)
- Priority Habitat Inventory - Deciduous Woodland (England)

National Forest Inventory (GB)

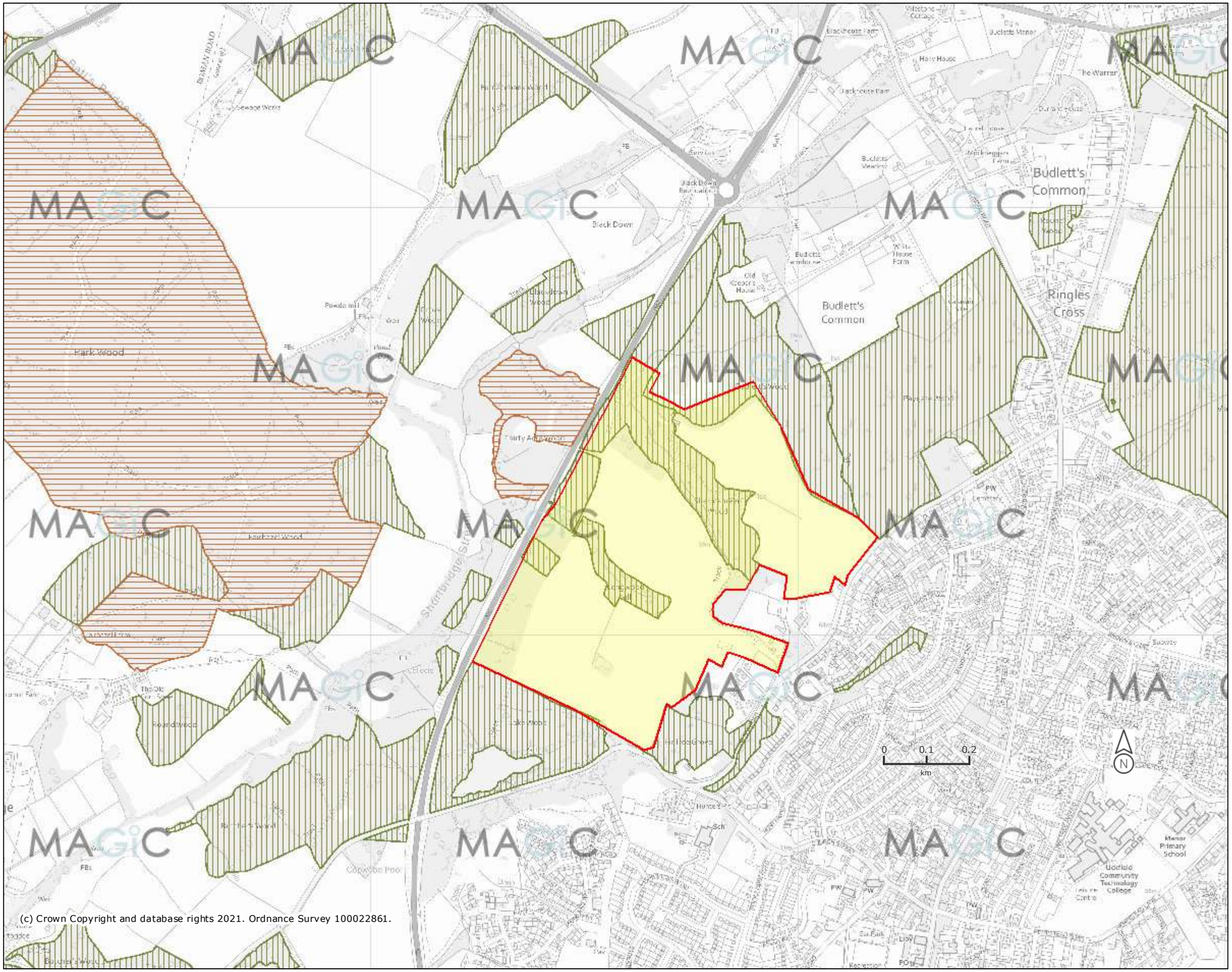
- Assumed woodland
- Broadleaved
- Cloud \ shadow
- Conifer
- Coppice
- Coppice with standards
- Failed
- Felled
- Ground prep
- Low density
- Mixed mainly broadleaved
- Mixed mainly conifer
- Shrub
- Uncertain
- Windthrow
- Young trees
- Woodpasture and Parkland BAP Priority Habitat (England)

Projection = OSGB36
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5719 - MAGIC Ancient Woodland Layer



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Legend

Ancient Woodland (England)

- Ancient and Semi-Natural Woodland
- Ancient Replanted Woodland

Projection = OSGB36
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km

Map produced by MAGIC on 15 January, 2021.

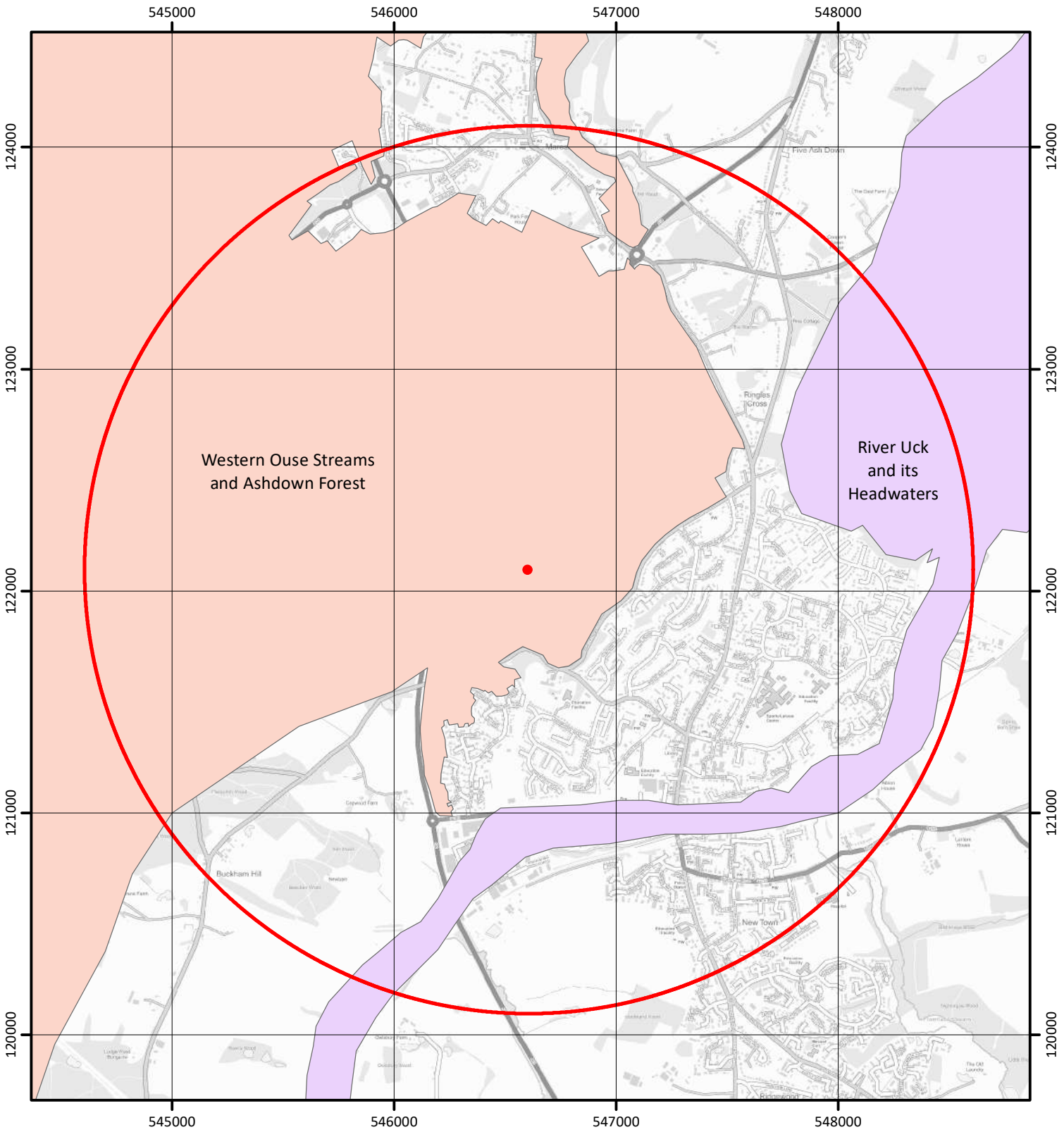
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Biodiversity Opportunity Areas

Land at Uckfield 5719

SxBRC/20/789 - 02/02/2021

Sussex Biodiversity Record Centre



Key to Map:

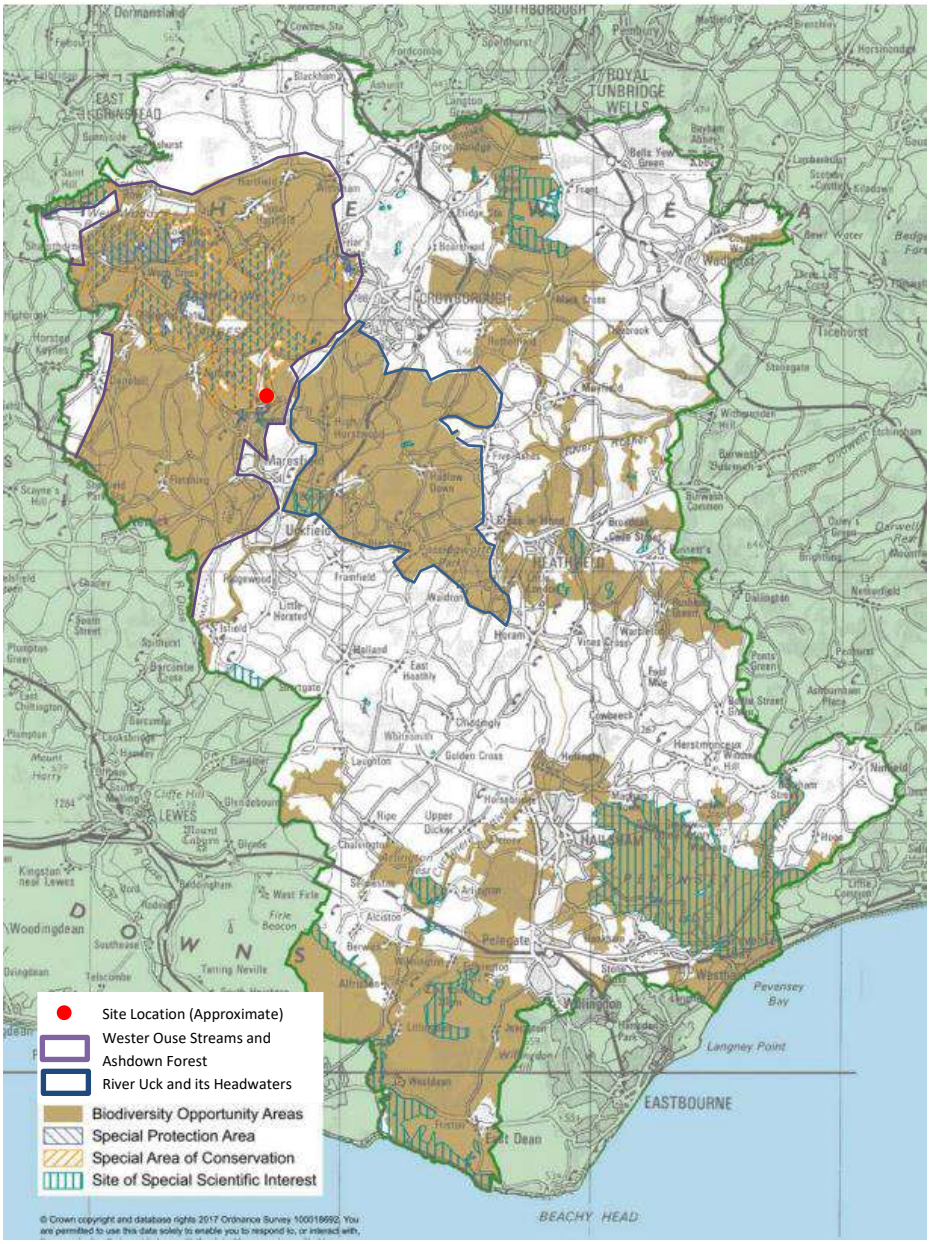
Search area

The Biodiversity Opportunity Areas (BOAs) map depicts the regional priority areas of opportunity for restoration and creation of Biodiversity Action Plan (BAP) habitats. This is a spatial representation of the BAP targets and the BOAs are areas of opportunity, not constraint. The BOAs shown in the map do not include all the BAP habitat in the region, nor do they include all the areas where BAP habitat could exist. In particular, more work is needed to develop approaches in urban and in marine environments. The Biodiversity Opportunity Areas Map is the property of the members of the South East England Biodiversity Forum © South East England Biodiversity Forum 2009. Reproduction of the BOA Map is subject to conditions. Contains Ordnance Survey data © Crown copyright and database rights 2021

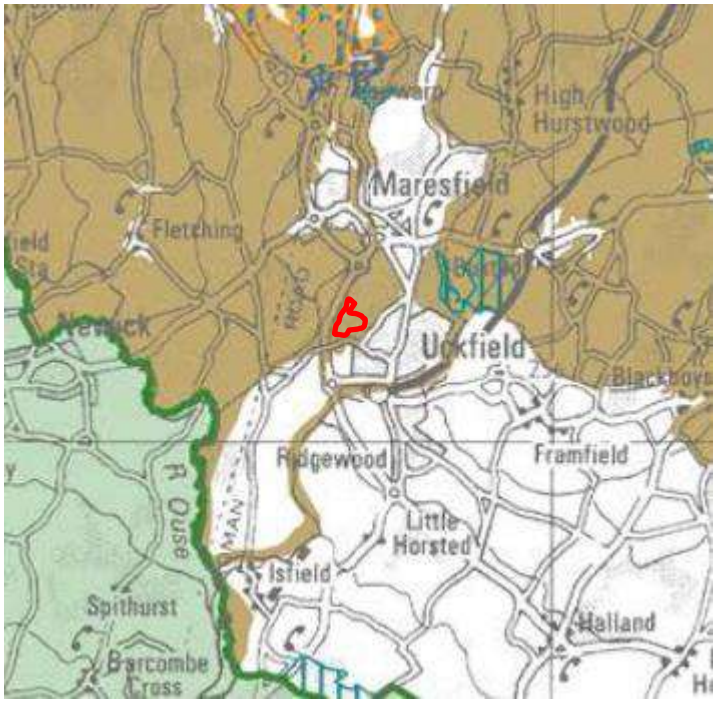
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Biodiversity Opportunity Areas in Wealden



Site Location (Downlands, Uckfield) within the Biodiversity Opportunity Area in Wealden



08:48 Western Ouse Streams and Ashdown Forest

The north of the area is dominated by the European protected heathland, Ashdown Forest, which consists of a matrix of open heath, ancient woodland, ghyll woodland and wetlands. The southern part of the area captures the eastern Ouse and its headwaters, south towards the confluence with the River Uck. In the southern area smaller patches of heathland exist alongside many ponds and modern wood pasture. The area is an important watershed between the Medway and Ouse systems and is likely to be important for the migration of key species between catchments.

Joint Character Area: High Weald and Low Weald.

Geology: Western Ouse Streams and Ashdown Forest BTA lies on interbedded sandstone and siltstone.

Biodiversity:

- Much of the BTA lies within High Weald AONB and the site contains Forest Way Country Park; a linear park which forms an important green lane, and Old Lodge LNR.
- The BTA includes the Ashdown Forest, designated as an SAC, SPA and SSSI. Ashdown Forest is one of the largest single continuous blocks of heathland, semi-natural woodland and valley bog in the region. Alongside typical heathland species are less common species such as Petty Whin and Ivy-leaved Bell Flower, and aquatic habitats on the site provide habitat for a range of invertebrates including many uncommon beetles, moths and butterflies. There are also large populations of reptiles and heath nesting birds including Curlew and Nightjar.
- There are 13 SNCIs within this BTA: Brown Knoll Farm Meadow is unimproved acid grassland at the edge of Ashdown Forest, supporting a rich plant community; Courtland Wood is an ancient woodland dominated by Oak over Hazel. The canopy is reasonably dense resulting in a less rich ground flora, however there are numerous bryophytes along a small stream that bisects the site; Piltdown Common is a mosaic of heathland, grassland, scrub and woodland. There is also a large pond which is good for water beetles and Common Toad; Butchers Wood is an ancient woodland consisting of Hazel coppice and Oak, with a large population of Wild Daffodil. Along the stream boundary, sandstone outcrops have a good bryophyte assemblage including several rare species; Hugget's Wood and The Toll is a small woodland on either side of a shallow valley, consisting mainly of Hornbeam and Hazel coppice. Wetter areas contain Alder and Opposite-leaved Golden Saxifrage; the land at Isfield Church consists of rush pasture crossed by several shallow drains. There is an area of wet woodland containing Marsh Marigold and Black Poplar, and the whole site is rich in fungi; Lake Wood is an ancient woodland site surrounding a large boating lake. The site is typical Wealden woodland, and supports a diverse bird population and Dormouse. The lake is bordered by sandstone outcrops and several rare lichens and bryophytes can be found. There is also a small cave which is used as a bat hibernaculum; Pound and Furzefield Wood consists of Furzefield Wood, primarily a Pine plantation, and Pound Wood, believed to be ancient in origin. Pound Wood in particular supports less common species including Adder's Tongue and Silver-washed Fritillary; Sheffield Forest Complex is a large woodland managed for commercial forestry. The site does however contain specialised Atlantic bryophytes and ferns, as well as a number of ghylls cut into the sandstone; Sheffield

Park Garden contains a mosaic of habitats and retains many features of ancient pasture-woodland. There are many ancient Oak, Ash, Sweet Chestnuts and Beech (including pollards), and these support important communities of lichens, bryophytes and invertebrates; Shortbridge Stream Meadow is part of a series of fields along Shortbridge Stream. The site consists of an area of marshy grassland and swamp with species such as Sneezewort and Gypsywort; Stephens Farm Meadow is an unimproved damp grassland site containing species such as Sneezewort and Devil's-bit Scabious. There is a small pond in the meadow and a stream-fed lake with diverse vegetation and a large number of frogs; Wapsbourne Wood is an area of ancient woodland predominantly containing over-grown Sweet Chestnut. The ground flora is quite sparse however there is a patch of the uncommon Solomon's-seal and a number of ancient woodland indicators.

Archaeology:
There are numerous Scheduled Ancient Monuments in the Ashdown Forest part of this area. Brown Knoll Farm Meadow has ridge and furrow across the upper slopes, which remains from traditional ploughing in the middle ages. The land at Isfield Church was the original location of Isfield and the earthworks of an 11th Century motte and bailey are still visible. Sheffield Park Garden was landscaped by "Capability" Brown during the 18th Century.

Targets:
There are opportunities within this area for large scale floodplain woodland, floodplain meadow and river restoration. The water quality of headstreams and tributaries could also benefit from stream restoration and increased woody cover. Heathland maintenance and restoration, and wetland creation against a backdrop of high visitor pressure are also options. Enhancement of habitat for key heathland species and expansion of hedgerow networks is also important.

BAP Species: 103 BAP Species have been recorded in this Biodiversity Target Area

08:49 River Uck and its Headwaters

Uckfield is a town that has suffered extreme flood-events in recent years, and this area is considered important for flood-alleviation. The area itself whilst containing many tributaries of the River Uck and has a scattering of ancient woodland, ghyll woodlands and lowland meadows. The River Uck passes through the urban area of Uckfield and through the agricultural land of the Low Weald until the confluence with the River Ouse north of Lewes.

Joint Character Area: High weald and low weald.

Geology: River Uck and its Headwaters lie on siltstone, mudstone and sandstone. There are various superficial deposits of clay, silt, sand and gravel in the river valley.

Biodiversity:

- The eastern side of the BTA is within High Weald AONB.
- There are two SSSIs within the BTA: Buxted Park is an old deer park consisting of a variety of unimproved communities with parkland trees and areas of woodland. The grassland is of an acidic nature with species such as Heath Bedstraw and Hairy Sedge. In addition there are areas of marshy grassland, fen communities, and neutral grassland. The park is found to be exceptional for invertebrates especially beetles and flies which thrive on the marshlands, riverbanks and deadwood; Stockland Farm Meadows consists of two grazed meadows and a hay field on Wadhurst clay. Over 80 plant species have been recorded including Pepper-saxifrage and Cowslip, and a small pond provides additional interest with five amphibian species present.
- There are five SNCIs within the BTA: Cantersand Meadows includes two meadows with a typical neutral community including Oxeye Daisy and Sweet Vernal-grass moving to a more acidic area with Tormentil and Devil's-bit Scabious. There is also an area of species-rich gill woodland with abundant bryophyte interest; Hadlow Down Churchyard supports species-rich grassland including large patches of acid grassland and heather. The churchyard also has several Yews which appear to be of considerable age; Popeswood Marsh is probably a unique example of this habitat type within the county. The site consists of the flushed central slopes with species such as Common Yellow Sedge (*C. Demissa*), Marsh Pennywort and high bryophyte cover. The presence of Bog Pimpernel is also of interest; the Southern Part of Hadlow Deep Wood is predominated by old Hornbeam coppice, with areas of Ash and Oak. A stream crosses through the woodland, and the sides are botanically rich with species such as Wood Sorrel and Yellow Archangel. The presence of a heronry adds to the interest of this site; Wildings and Scolcus Wood Complex is a large area of ancient woodland with Sweet Chestnut, Birch and Oak amongst the dominant species. There are numerous streams crossing the site, which have a rich bryophyte and lichen flora, and patches of Opposite-leaved Golden-saxifrage.

Archaeology: Buxted Park SSSI has evidence of ridge and furrow from cultivation. There a few Scheduled Ancient Monuments in the area, mostly related to Medieval features and there is evidence of iron working in more recent centuries.

EU Directive 79/409 on the Conservation of Wild Birds:
Special Protection Area

ASHDOWN FOREST (EAST SUSSEX)

The Ashdown Forest proposed Special Protection Area (pSPA) is an extensive area of common land on mainly sandy soils between East Grinstead and Crowborough in East Sussex. It comprises a mosaic of wet and dry heath, valley bog and woodland, and supports several uncommon plants, a rich invertebrate fauna and nationally important numbers of breeding nightjar and Dartford warbler. The boundary of the pSPA is coincident with that of the Ashdown Forest Site of Special Scientific Interest.

The site qualifies for designation under Article 4.1 of the EU Birds Directive by regularly supporting nationally important breeding populations of two Annex 1 species. The site supports 35 pairs of nightjar *Caprimulgus europaeus* (1991-92 survey), representing 1.1% of the British population, and 20 pairs of Dartford warbler *Sylvia undata* (1994 survey), representing 2.1% of the British population. Other regularly occurring Annex 1 species include woodlark *Lullula arborea*, hen harrier *Circus cyaneus* and great grey shrike *Lanius excubitor*.

The diverse range of heathland and woodland habitats on the site supports an important assemblage of breeding species, some of which have declined in England over recent years. Notable species regularly breeding on the site include hobby *Falco subbuteo*, tree pipit *Anthus trivialis*, redstart *Phoenicurus phoenicurus*, stonechat *Saxicola torquata* and wood warbler *Phylloscopus sibilatrix*, in addition to nightjar and Dartford warbler.

SPA Citation
ICC
May 1994

This citation / map relates to a site entered in the Register of European sites for Great Britain
Register reference number UK9012181
Date of registration 25 AUG 1998
Signed .....
on behalf of the Secretary of State for the Environment

Ashdown Forest

Designated Special Area of Conservation (SAC)

Country	England
Unitary Authority	Surrey, East and West Sussex
Centroid*	TQ451306
Latitude	51.05583333
Longitude	0.070555556
SAC EU Code	UK0030080
Status	Designated Special Area of Conservation (SAC)
Area (ha)	2715.88

* This is the approximate central point of the SAC. In the case of large, linear or composite sites, this may not represent the location where a feature occurs within the SAC.



Location of Ashdown Forest SAC

General site character

- Heath, Scrub, Maquis and Garrigue, Phygrana (60%)
- Mixed woodland (40%)

Download the Standard Data Form for this site as submitted to Europe (PDF <100kb)

Note When undertaking an appropriate assessment of impacts at a site, all features of European importance (both primary and non-primary) need to be considered.

Annex I habitats that are a primary reason for selection of this site

- **4010 Northern Atlantic wet heaths with Erica tetralix**
  Ashdown Forest contains one of the largest single continuous blocks of lowland heath in south-east England, with both **4030 European dry heaths** and, in a larger proportion, wet heath. The M16 *Erica tetralix – Sphagnum compactum* wet heath element provides suitable conditions for several species of bog-mosses *Sphagnum* spp., bog asphodel *Narthecium ossifragum*, deergrass *Trichophorum cespitosum*, common cotton-grass *Eriophorum angustifolium*, marsh gentian *Gentiana pneumonanthe* and marsh clubmoss *Lycopodiella inundata*. The site supports important assemblages of beetles, dragonflies, damselflies and butterflies, including the nationally rare silver-studded blue *Plebejus argus*, and birds of European importance, such as European nightjar *Caprimulgus europaeus*, Dartford warbler *Sylvia undata* and Eurasian hobby *Falco subbuteo*.

COUNTY: EAST SUSSEX SITE NAME: BUXTED PARK

DISTRICT: WEALDEN

Status: Site of Special Scientific Interest (SSSI) notified under Section 28 of the Wildlife and Countryside Act 1981.

Local Planning Authority: WEALDEN DISTRICT COUNCIL

National Grid Ref: TQ 488225 Area: 83.43 (ha.) 206.16 (ac.)

Ordnance Survey Sheets 1:50,000: 198, 199 1:10,000: TQ 42 SE

Date Notified (Under 1981 Act): 1989 Date of Last Revision: –

Other Information:
New site.

Reasons for Notification:
Buxted Park is an old deer park consisting of a variety of unimproved grassland communities with parkland trees and areas of woodland which as a whole support a large invertebrate population. It lies on neutral-acidic soils over Tunbridge Wells Sandstone, Wadhurst Clay and various superficial deposits in the valley of the River Uck.

The acidic grassland east of the River Uck is of a type very scarce in south east England. The sward is dominated by the grasses red fescue *Festuca rubra* and common bent *Agrostis capillaris* with numerous herbs including creeping cinquefoil *Potentilla reptans* and white clover *Trifolium repens*. Ant-hills occur throughout, upon

- **4030 European dry heaths**
  The dry heath in Ashdown Forest is an extensive example of the south-eastern H2 *Calluna vulgaris – Ulex minor* community. This vegetation type is dominated by heather *Calluna vulgaris*, bell heather *Erica cinerea* and dwarf gorse *Ulex minor*, with transitions to other habitats. It supports important lichen assemblages, including species such as *Pycnothelia papillaria*. This site supports the most inland remaining population of hairy greenweed *Genista pilosa* in Britain.

Annex I habitats present as a qualifying feature, but not a primary reason for selection of this site

- Not Applicable

Annex II species that are a primary reason for selection of this site

- Not Applicable

Annex II species present as a qualifying feature, but not a primary reason for site selection

- **1166 Great crested newt** *Triturus cristatus*

Many designated sites are on private land: the listing of a site in these pages does not imply any right of public access.

COUNTY: EAST SUSSEX SITE NAME: ASHDOWN FOREST

DISTRICT: WEALDEN

Status: Site of Special Scientific Interest (SSSI) notified under Section 28 of the Wildlife and Countryside Act 1981. Part of the site is a Local Nature Reserve (LNR) managed by the Sussex Trust for Nature Conservation

Local Planning Authority: WEALDEN DISTRICT COUNCIL

National Grid Reference: TQ 450300 Area: 3144.6 (ha.) 7770.3 (ac.)

Ordnance Survey Sheet 1:50,000: 187, 188 1:10,000: TQ 33 SE, TQ 43 SW, TQ 43 SE, TQ 42 NW, TQ 43 NE, TQ 53 SW

Date Notified (Under 1949 Act): 1953 Date of Last Revision1972

Date Notified (Under 1981 Act): 1986 Date of Last Revision: –

Other Information:
The site is mentioned in 'A Nature Conservation Review'*, and is common land, managed by the Ashdown Forest Conservators.

Reasons for Notification:
Ashdown Forest is an extensive area of common land lying between East Grinstead and Crowborough. The soils are derived from the predominantly sandy Hastings Beds. It is one of the largest single continuous blocks of heath, semi-natural woodland and valley bog in south-east England, and it supports several uncommon plants, a rich invertebrate fauna, and important populations of heath and woodland birds.

Although the area of heathland has declined in recent years due to cessation of grazing and frequent fires, there remain extensive areas of dry heath dominated by ling *Calluna vulgaris* with bell heather *Erica cinerea* and dwarf gorse *Ulex minor*. This heathland supports important lichen communities including species such as *Pycnothelia papillaria*. Bracken *Pteridium aquilinum* is now dominant over large areas. On the damper heath, cross-leaved heath *Erica tetralix* becomes dominant with deer-grass *Trichophorum cespitosum*. The heath and bracken communities form a mosaic with acid grassland dominated by purple moor-grass *Molinia caerulea* with species such as the local petty whin *Genista anglica*. Wet areas provide suitable conditions for several species of sphagnum moss, together with which are found bog asphodel *Narthecium ossifragum*, common cotton-grass *Eriophorum angustifolium* and specialities such as marsh gentian *Gentiana pneumonanthe*, ivy-leaved bell flower *Wahlenbergia hederacea*, white-beaked sedge *Rhynchospora alba* and the marsh clubmoss *Lycopodiella indundata*.

Gorse *Ulex europaeus*, silver birch *Betula pendula*, pedunculate oak *Quercus robur* and Scots pine *Pinus sylvestris* are scattered across the heath, and in some areas form extensive secondary woodland and scrub. The older woodlands consist of beech *Fagus*

sylvatica and sweet chestnut *Castanea sativa*. These contain bluebell *Hyacinthoides non-scripta*, bilberry *Vaccinium myrtillus*, the hard fern *Blechnum spicant*, and honeysuckle *Lonicera periclymenum* with birds-nest orchid *Neottia nidus-avis* and violet helleborine *Epipactis purpurata* found particularly under beech.

There are some conifer and sweet chestnut coppice plantations scattered throughout the forest, with rides of particular importance for heathland plants, and various woodland birds such as sparrowhawk.

Forest streams are often lined by alders *Alnus glutinosa* with grey sallow *Salix cinerea*, birch and oak. These streams cut through the soft sandstone in places, forming steep sided valleys (ghylls) which are sheltered from winter frosts and remain humid in summer. Uncommon bryophytes such as the liverwort *Nardia compressa* and a range of ferns including the mountain fern *Oreopteris limbosperma* and the hay-scented buckler fern *Dryopteris aemula* thrive in this 'atlantic' microclimate.

The damming of streams, digging for marl, and quarrying have produced several large ponds in a number of areas of the forest. Although often largely free of aquatic vegetation there may be localised rafts of broadleaved pondweed *Potamogeton natans*, beds of reedmace *Typha latifolia* and water horsetail *Equisetum fluviatile*. These species are particularly abundant in the marl pits.

The aquatic habitats support a diverse fauna, including a range of water beetles (Coleoptera) a rare midge *Dixella filiformis*, a diversity of dragonfly and damselfly species (Odonata) and the locally uncommon snail *Vertigo substriata*. Some of the ponds also have large amphibian populations, including the great-crested newt *Triturus cristatus*. The heathlands and woods support many uncommon beetles, moths and butterflies. There are still several populations of the rare silver-studded blue *Plebejus argus* on the open heath. The bog bush cricket *Metrioptera brachyptera* is particularly abundant in the forest also. Large populations of reptiles, including the viviparous lizard *Lacerta vivipara* and the adder *Vipera berus* occur on the open habitats. Notable heath nesting birds include curlew, nightjar and hobby. Scrub, woodlands and coppice together support a wide range of breeding woodland birds, and a refuge for the dormouse *Muscardinus avellanarius*, which has become scarce over large areas of the country in recent years.

* A Nature Conservation Review, 1977; ed D R Ratcliffe; published by Cambridge University Press.

which yarrow *Achillea millefolium* and heath bedstraw *Galium saxatile* occur. Drier areas support bird's-foot trefoil *Lotus corniculatus* and large thyme *Thymus pulegoides*, whilst hairy sedge *Carex hirta* and jointed rush *Juncus articulatus* are common in damp patches.

Marshy grassland, often dominated by tufted hair grass *Deschampsia caespitosa*, and fen communities occupy land close to the river and in one area a fine greater tussock sedge *Carex paniculata* swamp has developed. Species-rich neutral grassland is also represented supporting quaking grass *Briza media*, common spotted orchid *Dactylorhiza fuchsii* and black knapweed *Centaurea nigra*. One small area of grassland has a ridge and furrow topography resulting from temporary cultivation in the 19th Century or before.

Bracken *Pteridium aquilinum* is well established in places and parkland trees are scattered throughout the site. The ancient Culver Wood consists largely of hornbeam *Carpinus betulus* coppice with hazel *Corylus avellana* and alder *Alnus glutinosa* in wet areas. The ground flora is sparse in places, due to deer grazing, though wood sorrel *Oxalis acetosella* occurs.

The park has been found to be of exceptional importance for conservation of invertebrates, especially beetles and flies which are found on the marshlands and riverbanks, but more importantly, found in association with over mature trees and dead wood. Rot holes, sap runs and fungi growing on trees are of particular significance. Three nationally rare species of beetle; *Ptenidium gressneri*, which is an extremely small brown-black beetle, *Aderus brevicornis* and *Prionocyphon serricornis* are associated with rotten wood of large, old trees, the latter species with water-filled holes. One other nationally rare beetle, *Aleochara sanguinea* has been found in putrid fungi. Over fifty nationally scarce beetles have been recorded, along with several nationally scarce flies, including the hoverfly of fen and marshes, *Orthonevra*

brevicornis and the large-headed fly of woodland in southern England, *Nephrocerus flavicornis*.

SITE OF NATURE CONSERVATION IMPORTANCE (SNCI)

East Sussex

Site Name:	**Lake Wood**		
Site Ref(s):	CW44	**Owner(s):**	
District(s):	Wealden	**Size (ha):**	8.2
Parish(es):	Uckfield	**Date(s):**	Identified Summer 1990 Last Revised Jul 2016
Grid Ref:	TQ463218	**Surveyor(s):**	Ben Rainbow

Summary

Lake Wood is a complex site that was once part of a large estate. It consists of ancient woodland - which has been much modified by landscaping - surrounding a large man-made lake with lush emergent vegetation. Large sandrock outcrops occur around the lake, which support acidic flora, bats and bryophytes including Meylan's Pouchwort *(Calypogeia integristipula)*. The lake and rich mosaic of surrounding habitats supports a diverse invertebrate fauna including the Downy Emerald *(Cordulia aenea)* dragonfly.

The site is open to and enjoyed by the public.

Site Description

The woodland in the northern part of the site is typical of Wealden woodland standing on clay and sandstone based soils. It is comprised of mixed coppice of Hazel *(Corylus avellana)*, Downy Birch *(Betula pubescens)* and Hornbeam *(Carpinus betulus)*, with Oak *(Quercus sp.)* standards, and scattered Beech *(Fagus sylvatica)* and Holly *(Ilex aquifolium)*. The ground flora is species-rich and variable, but large areas are typically carpeted in Bluebell *(Hyacinthoides non-scripta)* and Wood Anemone *(Anemone nemorosa)* with occasional Wood Speedwell *(Veronica montana)*, Three-nerved Sandwort *(Moehringia trinervia)* and fern species. Other areas of woodland consist of Sweet Chestnut *(Castanea sativa)* with Sycamore *(Acer pseudoplatanus)*, Bracken *(Pteridium aquilinum)* and Bramble *(Rubus fruticosus agg.)*. Wet acidic woodland to the southwest of the site supports locally occasional Common Dog-violet, *(Viola riviniana)* and Primrose *(Primula vulgaris)* under a low canopy of Willow *(Salix sp.)*. Solomon's-seal *(Polygonatum multiflorum)* and Tutsan *(Hypericum androsaemum)* are present. Hazel Dormice *(Muscardinus avellanarius)* are recorded on the site.

The area downstream of the lake dam supports marshy flora and provides a sheltered glade of value for invertebrates. Marsh Thistle *(Cirsium palustre)*, Water Figwort *(Scrophularia auriculata)* and Bittersweet *(Solanum dulcamara)* are present and bordered by banks covered with Hard Fern *(Blechnum spicant)*, Lady Fern *(Athyrium filix-femina)* and Yellow Pimpernel *(Lysimachia nemorum)*.

To the south of the wood, there is a large, landscaped boating lake, built in the nineteenth century. The lake is now edged by luxurious emergent vegetation that consists of patches of Bulrush *(Typha latifolia)*, Branched Bur-reed *(Sparganium erectum)*, Yellow Flag *(Iris pseudacorus)*, Pendulous Sedge *(Carex pendula)* and Gypsywort *(Lycopus europaeus)* with occasional Alder *(Alnus glutinosa)* and Willow trees over-hanging the water's edge. Royal Fern *(Osmunda regalis)* is also found growing on the lake margins, which was likely part of historic planting.

The lake and adjoining habitats are of local importance for invertebrates, notably dragonfly. It supports breeding Downy Emerald *(Cordulia aenea)*, Four-spotted Chaser *(Libellula quadrimaculata)* with abundant Azure Damselfly *(Coenagrion puella)* and Large Red Damselfly *(Pyrrhosoma nymphula)*.

The lake is bounded on a number of sides by large sandstone outcrops. These are of importance for bryophytes and support Meylan's Pouchwort *(Calypogeia integristipula)*; a scarce species that grows on sandstone outcrops in The Weald. Other acidic species historically recorded include Common Pouchwort *(Calypogeia fissa)* and Tumid Notchwort *(Lophozia ventricosa)*. The tops of the sandrock support a very localised acidic grassland flora including Ling *(Calluna vulgaris)*, Gorse *(Ulex europaeus)*, Sheep's Sorrel *(Rumex acetosella)*, Early Hair-grass *(Aira praecox)* and Sticky Mouse-ear *(Cerastium glomeratum)*.

There is a small cave north of the lake, where hibernating bats have been previously recorded during the winter months. Natterer's bat *(Myotis nattereri)* and occasionally Daubenton's *(Myotis daubentonii)* have been recorded.

To the south of the lake former exotic planting is still evident and there is Rhododendron species *(Rhododendron sp.)*, Horse Chestnut *(Aesculus hippocastanum)*, Common Lime *(Tilia x europaea)* and False Acacia *(Robinia pseudoacacia)* trees as well as Rowan *(Sorbus aucuparia)*, Sycamore *(Acer pseudoplatanus)* and Bramble scrub. Bracken and young Birch saplings are locally frequent in areas of former Rhododendron clearance.

Management Recommendations

Lake Wood is managed and being restored by The Woodland Trust. It is recommended the site is managed to a long-term management plan, to cater for the varying habitats and substantial nature conservation features of the site. Rhododendron ponticum control should continue and ideally this species should be eradicated from the site. Other exotic trees and shrubs should be prevented from spreading. Expert bryophyte advice should be south to inform management of the sandstone outcrop areas. Rides and glades management should continue to keep them open, sunny and diverse.

LOCAL WILDLIFE SITE

East Sussex

Site Name:	**West Park**		
Site Ref(s):	CW56	**Owner(s):**	
District(s):	Wealden	**Size (ha):**	11
Parish(es):	Uckfield	**Date(s):**	Identified Oct 1991 Last Revised Jul 2016
Grid Ref:	TQ462215	**Surveyor(s):**	Ben Rainbow

Summary

This site is situated on the western edge of Uckfield and is bordered by roads and housing. The site comprises a mosaic of habitats including semi-improved grassland, localised acidic grassland, developing broadleaved woodland, exposed rocky outcrops, and a marshy area. This is a rich assemblage in such a small site and is particularly important due to its proximity to an urban area. The sandstone outcrops support the rare and localised Meylan's Pouchwort *(Calypogeia integristipula)*. West Park is also of archaeological value, as it includes a Mesolithic rock shelter.

The site is managed as a Nature Reserve, by Uckfield Town Council and has open access to the public.

Site Description

Occasional mature Oak *(Quercus sp.)* and Beech *(Fagus sylvatica)* trees are scattered throughout this site and other areas are comprised of earlier successional native woodland.

Much of the site consists of neutral semi-improved grassland. Species-richer areas support occasional Oxeye Daisy *(Leucanthemum vulgare)*, Meadow Buttercup *(Ranunculus acris)*, Common Sorrel *(Rumex acetosa)*, Meadow Vetchling *(Lathyrus pratensis)* and Sweet Vernal-grass *(Anthoxanthum odoratum)*. The wider grassland supports a good diversity of common invertebrates including Meadow Grasshopper *(Chorthippus parallelus)*, Swollen-thighed Beetle *(Oedemera nobilis)* and Dark Bush-cricket *(Pholidoptera griseoaptera)*.

Centrally, there is an interesting marshy area that supports a diverse flora including Marsh-Bedstraw *(Galium palustre)*, Creeping-Jenny *(Lysimachia nummularia)*, Marsh Thistle *(Cirsium palustre)*, Lesser Spearwort *(Ranunculus flammula)*, Water Mint *(Mentha aquatica)*, Square-stalked St John's-wort *(Hypericum tetrapterum)*, Hairy Sedge *(Carex hirta)*, Rushes *(Juncus sp.)* and Ragged-Robin *(Silene flos-cuculi)*. Drier areas locally support Common Eyebright *(Euphrasia nemorosa)* and Tormentil *(Potentilla erecta)*. Common Spotted-orchid *(Dactylorhiza fuchsii)*, or a hybrid of it, are scattered across this area.

There is a meandering exposure of sandstone outcrops on the northern side of the site, surrounded by Bracken, Bramble and occasional Birch. These rocks provide habitat for a variety of lichens, mosses and liverworts including recently recorded Meylan's Pouchwort *(Calypogeia integristipula)*. Historic records include the liverworts Barbilophozia attenuata and Reboulia hemisphaerica.

Grassland bordering the sandstone outcrops is acidic and species-rich, supporting occasional Sheep's Sorrel *(Rumex acetosella)*, Sweet Vernal-grass *(Anthoxanthum odoratum)* and fine leaved Fescues *(Festuca sp.)*. Oval Sedge *(Carex leporina)* and Shining Crane's-bill *(Geranium lucidum)* are present. The footpaths and their locality have exposed sand and are important for invertebrates, supporting solitary mining bees, Common Spiny Digger Wasp *(Oxybelus uniglumis)* and Spider Hunting Wasp species *(Pompilidae)*.

Management Recommendations

All the areas of grassland and the marshy area of the site require management in order to maintain and enhance their botanical interest. Ideally they would be grazed, but if this is not possible then they should be cut in late summer and possibly also in early spring, with the cuttings removed. Scrub control should continue. Fencing has

been installed around the marsh area to prevent dog's disturbing nesting birds during the breeding season and it is recommended this continues.

Control may be required on Creeping Thistle *(Cirsium arvense)*, Common Ragwort *(Senecio jacobaea)* and Bracken to prevent it from dominating the open areas. Rhododendron control and eradication should continue, where present.

LOCAL WILDLIFE SITE

East Sussex

Site Name:	**Butcher's Wood**		
Site Ref(s):	CW55	**Owner(s):**	
District(s):	Wealden	**Size (ha):**	18.4
Parish(es):	Fletching	**Date(s):**	Identified 1995 Last Revised Jun 2016
Grid Ref:	TQ460217	**Surveyor(s):**	Ben Rainbow

Summary

This is an ancient woodland which once was contiguous with Lake Wood, now situated on the other side of the Uckfield by-pass. Much of it consists of Hazel *(Corylus avellana)* coppice with Oak *(Quercus sp.)* standards and some dense Sweet Chestnut *(Castanea sativa)* coppice. The ground flora is generally carpeted by Bluebell *(Hyacinthoides non-scripta)* and of particular note is a large population of Wild Daffodil *(Narcissus pseudonarcissus)*. Along the stream boundary and close to the by-pass, there are lines of significant sandstone outcrops which support rich and interesting bryophytes including the rare and localised Meylan's Pouchwort *(Calypogeia integristipula)*, Slender Bristle-moss *(Orthotrichum tenellum)* and Slender Thread-moss *(Orthotrichum gracile)*.

Site Description

Much of this woodland is dominated by Hazel coppice with Oak standards. The ground flora is typified by carpets of Bluebell *(Hyacinthoides non-scripta)* with Wood Anemone *(Anemone nemorosa)*, Wood Spurge *(Euphorbia amygdaloides)* and occasional Pignut *(Conopodium majus)*. Of particular note is the abundance of Wild Daffodil *(Narcissus pseudonarcissus)* which occurs in one large area. The Hazel Leaf-roller *(Poderus coryli)* beetle has been previously recorded in the woodland.

Sweet Chestnut coppice is frequent in localised areas with occasional Downy Birch *(Betula pubescens)*, Honeysuckle *(Lonicera periclymenum)*, Wood Sage *(Teucrium scorodonia)*, Bracken *(Pteridium aquilinum)* and Bramble *(Rubus fruticosus agg.)*.

Near the stream, there is a line of sandstone outcrops with deeply recessed underhangs, many of which are overshaded by Holly *(Ilex aquifolium)*. Historically the very rare

Small Four-tooth Moss *(Tetradontium Repandum)*, Nut-moss *(Diphyscium foliosum)* and rare liverwort Notched Rustwort *(Marsupella emarginata)* were recorded here in 1985.

In the centre of the site there is a large open, sandy area surrounded by low lying sandstone outcrops. This was once a heathy clearing, but, in recent years it has been frequently used for motorbike scrambling and 4-wheel driving, and now has expanses of bare sand substate with sparse vegetation comprising of Bird's-foot *(Ornithopus perpusillus)*, Sheep's Sorrel *(Rumex acetosella)*, Hair-grass species *(Aira sp.)*, Heath Rush *(Juncus squarrosus)*, Little Mouse-ear *(Cerastium semidecandrum)*, Common Mouse-ear *(Cerastium fontanum)*, and Cat's Ear *(Hypochaeris radicata)*. On the sheltered sandrock exposures in limited locations Meylan's Pouchwort *(Calypogeia integristipula)* is present with other bryophytes. Slender Bristle-moss *(Orthotrichum tenellum)* has been recorded on the periphery of this area. These rocks were the location of an exceptionally rare liverwort Tritomaria excectiformis. Slender Thread-moss *(Orthotrichum gracile)* has also been recently recorded on the site, as has the scarce lichen species Cladonia caespiticia in the past.

Management Recommendations

To conserve and restore the bryophyte interest of the rock outcrops, it is recommended dense stands of Holly are removed or heavily thinned to provide only light shade to these areas; currently the heavy shade in these areas is supressing lower plants. It is recommended further specialist bryophyte advice is sought to inform management.

A woodland management plan is recommended for long-term management and if possible the woodland should be brought back into rotational coppicing management with protection of regrowth from deer browsing. The

woodland alongside the stream may benefit from being as a non-intervention zone.

It is recommended vehicular use of the wood is restricted and fuel/oil contamination avoided to protect the site's nature conservation features.

Annex 5719/4:

Woodland Botanical Survey – Compartment Descriptions and DAFOR Lists

Downland Farm (5719). Woodland Compartment Descriptions. Following Survey May 2020.

Project Number: 5719	**Project Name**: Downlands Farm
Woodland Compartment Ref: W3 (Budletts Wood - East)	
General Description	
The eastern parts of Budletts Wood, abutting and continuous with Paygate Wood, comprising a mixed deciduous woodland. A shallow ephemeral stream runs throughout its length. Dry deciduous Oak/Birch woodland exists on either side of a moist central valley, which is dominated by Alder, and supporting carpets of Bluebell*. Elsewhere ground flora lacking and bare ground/leaf litter dominates. Western edge forms well-structured ecotone of scrub/herb-rich grassland.	
Tree Canopy Composition, Age Class etc.	
In dryer woodland, a range of species including Oak, Ash, Birch, Sycamore, Hornbeam*, and Sweet Chestnut. Some larger mature Oak (>50cm diameter), and mature Birch and Cherry* are present. Stands of Birch are present in patches throughout. Damp woodland in central valley dominated by semi-mature to mature Alder. Elsewhere Oak overtop canopy and function as open-grown trees (some 750-800mm diameter).	
Understory	
Frequently an understory of Hazel. Becoming scrubby and thicketed towards the southern boundary in places (Holly*, Hawthorn, Blackthorn). Hornbeam* is present. Patches of Rhododendron are invading.	
Ground Flora	
Ground flora is variable in quality, with many dryer areas of woodland floor supporting few AWVPs due to heavy shade cast. However, along the moist central valley, where Alder is dominant, there are dense carpets of Bluebells*, together with abundant Wood Anemone*, frequent Male Fern, Broad Buckler Fern, and Early Dog Violet*. Elsewhere there is very little ground flora due to heavy shade. Occasional patches of Bluebell*, mostly associated with high light from Sweet Chestnut deadfalls.	
Deadwood	
There is copious deadwood throughout the wetter parts including deadfalls of Sweet Chestnut together with stumps, and smaller branches. Some windthrown Oak.	
Management	
None apparent.	
Evidence of Damage/Deterioration	
Occasional Rhododendron invading. Some areas have been degraded by the construction of a BMX track. Some squirrel damage to young Sycamore.	

Project Number: 5719	**Project Name**: Downlands Farm
Woodland Compartment Ref: W4c (**Budletts Wood - South**). Clearing	
General Description	
A heathy clearing which is covered in Bracken and surrounded by dense stands of Rhododendron and young Birch Woodland. Part has sandstone outcrops. Western boundary formed by a shallow dry stream.	
Tree Canopy Composition, Age Class etc.	
Dense stands of immature Birch woodland around edges. Several induvial trees, including a very old Birch on the sandstone outcrops. By western boundary the woodland canopy is dominated by Sweet Chestnut	
Understory	
N/a Young woodland means that the understory is mostly absent. Towards western edge Hazel and Holly* dominate the understory and Rhododendron is invading.	
Ground Flora	
Some Bluebell* carpets under Birch canopy. Within the clearing itself, dominated by Bracken, although around the margins the presence of the acid-loving species Devil's-bit Scabious and Ling heather suggests its status as former heathland. By the stream there are locally abundant Bluebell*, together with Enchanter's-nightshade, Water Figwort, Wood Sorrel*, Lesser Skullcap*, and Ground Ivy.	
Deadwood	
By the stream, to the north of the compartment there are frequent windthrown Sweet Chestnut.	
Management	
Some bracken clearance in western part of clearing.	
Evidence of Damage/Deterioration	
There are extensive stands of Rhododendron.	

Project Number: 5719	**Project Name**: Downlands Farm
Woodland Compartment Ref: W4d (**Budletts Wood - South**). Wet Woodland	
General Description	
Wet Willow/Birch woodland apparently flushed with spring water. Large areas of bare wet ground. Forming a thick layer of young dense Birch and scrub on the margins towards the open field.	
Tree Canopy Composition, Age Class etc.	
Semi-mature Willow and Birch. Occasional Holly* and Rowan. Scrub on southern boundary including Blackthorn and Hawthorn.	
Understory	
Moderately dense willow and birch.	
Ground Flora	
Sparse, but including several AWVP species: Thin-Spiked Wood Sedge*, Wood Sedge*, Wild Strawberry, Male Fern, Early Dog Violet*, Hard Fern* and Pendulous Sedge*. Skullcap, Honeysuckle, Marsh Thistle, Dandelion, Bracken, Soft Rush, Compact Rush, Broad Buckler Fern, Cleavers and Creeping Cinquefoil are also present.	
Deadwood	
Frequent tree fall.	
Management	
None	
Evidence of Damage/Deterioration	
Occasional Rhododendron invading	

Project Number: 5719	**Project Name**: Downlands Farm
Woodland Compartment Ref: W4e (**Budletts Wood - South**). Climax Oak Woodland	
General Description	
A stand of open high-canopy oak woodland bound to north by a shallow stream bed. Here local Bluebell* carpets present together with Wood Anemone*.	
Tree Canopy Composition, Age Class etc.	
Mature Oak (trees generally 30-40cm diameter). Birch by stream.	
Understory	
Very sparse, limited to occasional Holly* and Honeysuckle. Some Hazel, Sweet Chestnut, Rowan and Sycamore by stream.	
Ground Flora	
Ground flora is generally limited, although there are extensive patches of Common Cow-wheat* in some places, and occasional Creeping Soft Grass*. Local Bluebell* carpets in the north by the stream, together with Wood Sorrell* and Spleenwort (*Asplenium*). Hard Fern is Occasional.	
Deadwood	
Occasional standing deadwood with woodpecker holes.	
Management	
None	
Evidence of Damage/Deterioration	
Some stands of Rhododendron.	

Project Number: 5719	**Project Name**: Downlands Farm
Woodland Compartment Ref: W4f (**Budletts Wood – South**). Birch Woodland	
General Description	
A stand of young woodland dominated forming a dense understory in places.	
Tree Canopy Composition, Age Class etc.	
Frequent young to semi-mature Birch, together with young Oak, Rowan, Hornbeam, Beech, Holly* and Alder Buckthorn*. Occasional mature Oak (30-40cm diameter).	
Understory	
Very sparse, limited to occasional Holly* and Honeysuckle.	
Ground Flora	
Ground flora is generally absent. Occasional Wood Anemone* and Wood Spurge*.	
Deadwood	
Some	
Management	
None	
Evidence of Damage/Deterioration	
None apparent.	

Project Number: 5719	**Project Name**: Downlands Farm

Woodland Compartment Ref: W5a (**Shermanreed Wood**).

General Description

A diverse woodland over steep ground of the valley of the gill forming a broad linear corridor, which includes stands of Oak and Birch woodland, with areas of Alder dominating along a central watercourse. Recently planted stands occupy a large part of the woodland. In the south of the woodland there are one or more borrow pits or small quarry surrounded by a man-made bank.

Tree Canopy Composition, Age Class etc.

Large trees appear to have been removed from the majority of the woodland, although there are occasional oak standards, together with some semi-mature to mature Ash, Cherry*, Birch and Alder.

On the east side of the woodland is a historic ditch and wood-bank feature which has a number of old coppice stools, including one veteran Ash specimen with a large hollow bole (girth 4.2mm) and another large Ash coppice (girth 4.5m) . There is also a veteran Wild Cherry* just on the downslope.

Some areas with frequent larger Oaks remain, both in the far south of the woodland, and a stand in the far north. There are some areas of Ash woodland and some groups of Larch. Around the former quarry area in the south there is some regrowth of self-seeded Sycamore, alongside Oak, Cherry*, Chestnut and Elder.

Understory

Hazel understory is present in some places, particularly to the north. In far south, the understory is formed by bramble. Honeysuckle is frequent.

An area of Field Maple* coppice is present in the south.

Ground Flora

Soils appear have remained intact (save perhaps for around the area of quarrying) and a diverse range of AWVPs are present, including extensive carpets of Bluebell* and abundant Wood Anemone*. Opposite-leaved Golden Saxifrage* is present on the banks of the watercourse, and elsewhere there are good numbers of Yellow Archangel*, Wood Speedwell*, Wood Sedge*, Primrose*, Three-nerved Sandwort*, as well as occasional Hart's-tongue Fern*, Barren Strawberry* and Soft Shield Fern*.

Goldilocks Buttercup* is found on the southern edge of the woodland and Wood Mellick* and Wood Spurge* occur on the banks on this side.

Other species present, include Dog's Mercury, Broad Buckler Fern, Lady's Smock, Germander Speedwell, Herb-Robert, Nettle, Lords-and-Ladies, Enchanters-nightshade, Lesser Celandine, Bracken, Bugle, Meadowsweet, Cleavers, Ground Ivy, Wood Avens, Garlic Mustard, Common Chickweed and Creeping Cinquefoil. Common Twayblade is occasionally present.

Deadwood

Frequent, but generally small. More frequent to the north. Some windthrown conifers with woodpecker holes (with breeding Gt. Spotted Woodpecker).

Management

Extensive replanting throughout many areas. There is a small abandoned pheasant earing pen and feeders to the north.
Evidence of Damage/Deterioration
Himalayan Balsam and *Gunnera* are present towards the southern end of the wood around the ponds and stream, and a small stand of Japanese Knotweed is also present on the south-eastern margin. Small patched of Rhododendron to the north of the wood.

Project Number: 5719	**Project Name**: Downlands Farm
Woodland Compartment Ref: W5b (**Shermanreed Wood**).	
General Description	
Area of young replanted woodland, with a grassy ground flora.	
Tree Canopy Composition, Age Class etc.	
Young to Semi-mature Oak, Field Maple* and Hazel.	
Understory	
None	
Ground Flora	
Ground flora is dominated by Rough-stalked Meadow-grass and there are also patches of Creeping Soft Grass*. Wood Sedge*, Barren Strawberry*, Primrose*, Common Dog Violet, Early Dog Violet* and Pendulous Sedge are also present.	
Deadwood	
None	
Management	
None	
Evidence of Damage/Deterioration	
None	

Project Number: 5719	**Project Name**: Downlands Farm

Woodland Compartment Ref: W6 (**Longwood Gill**).

General Description

Longwood Gill is a narrow steep-sided wooded valley or gill, forming a linear feature along an ephemeral stream bed. Steeply sloping banks are present on both sides, and sandstone outcrops are present at the head of the valley.

A separate wooded copse (Area 6a) exists to the south of Longwood Gill, connected by a wide shaw.

Tree Canopy Composition, Age Class etc.

Mainly Oak and Birch with groups of Cherry* and Ash, limited in size by stability when on steeper slopes. Some larger Oak and Ash occur, as well as Holly*, towards top of slopes, and there is one mature standard Hornbeam on the southern edge. Sycamore dominates the canopy in some eastern parts.

One large Coast Redwood is located at top of gill.

Understory

Hazel understory frequently present. Honeysuckle frequent. Spindle, Elder, Hawthorn and Blackthorn form thickets in places excluding light and preventing the establishment of ground flora.

Ground Flora

Apart from some bare earth and eroded sections of bank, the ground flora is generally very rich, comprising extensive carpets of Bluebells*, often co-dominant with Wood Anemone*. Other AWVPs present include Hartstongue Fern*, Three-nerved Sandwort*, Primrose*, Early Dog Violet*, Yellow Archangel*, Yellow Pimpernel*, Wood Speedwell*, Wood Sedge*, Hairy Woodrush* and Pignut*.

Other species present include Male Fern, Dog's Mercury, Enchanter's Nightshade, Lords and Ladies, Ground Ivy, Nettle, Cleavers, Wood Dock, Wood Avens, Lesser Celandine, Foxglove, Bracken, Red Campion, and Ground Ivy.

Deadwood

Some, particularly in lower woodland areas. Locally frequent windthrown Sweet Chestnut plus fallen Oak and Birch. Occasionally standing deadwood (Oak, Birch and Sweet Chestnut).

Management

Some coppicing but not in a structured way.

Evidence of Damage/Deterioration

None apparent.

Project Number: 5719	**Project Name**: Downlands Farm
Woodland Compartment Ref: W6a (**Longwood Gill - Copse**).	
General Description	
A small pocket of woodland surrounding a large central pond, which is extremely shaded by the surrounding woodland.	
Tree Canopy Composition, Age Class etc.	
Canopy trees comprise Oak and Goat Willow.	
Understory	
Rowan, Goat Willow and Hawthorn are present.	
Ground Flora	
Patchy, with small patches of AWVPs, including Wood Sedge*, Bluebell*, Three-nerved Sandwort* and Primrose*.	
Deadwood	
Very little.	
Management	
None	
Evidence of Damage/Deterioration	
None apparent	

Project Number: 5719	**Project Name**: Downlands Farm

Woodland Compartment Ref: W7 (**Woodland adj. A22 - North**).

General Description

A strip of woodland alongside the A22, the northern part likely to have been part of Thirty-Acre Wood (having been bisected by the A22), and with further dry deciduous woodland to the south. There appears to be the remains of a series of old trackways forming a crossroads.

At the far north, the woodland grades into wet woodland with frequent Alder and Birch located around a series of silted damp hollows which are fed by from two minor tributaries to the south and possibly taking road run-off.

Tree Canopy Composition, Age Class etc.

Semi-mature Oak (ranging in age 20 cm to 50cm diameter), together with Birch, Beech and frequent Hazel. Scots Pine is present at lower frequencies.

Understory

Hazel, and Holly* forming dense thickets.

Ground Flora

Varied, but in places there are dense carpets of Bluebell*. Other AWVPs are occasional including Wood Anemone*, Yellow Archangel*, Primrose*, Pendulous Sedge* and Wood Sorrel*.

Deadwood

Frequent fallen deadwood, stumps and collapsed Birch and Grey Willow in places.

Management

None

Evidence of Damage/Deterioration

Possible ground disturbance of some sections in the past.

Project Number: 5719	**Project Name**: Downlands Farm
Woodland Compartment Ref: W8a (**Woodland adj. A22 - South**).	
General Description	
Section comprising mainly recently planted woodland, commencing just to south of Longwood Gill, and forming the northern part of the series of bands of woodland of various types along the A22.	
Tree Canopy Composition, Age Class etc.	
Semi-mature Oak (ranging in age 20 cm to 50cm diameter), together with Ash, Birch and occasional Alder.	
Understory	
Sparse. Hazel, Hawthorn and Field Maple* all present. Occasional Damson.	
Ground Flora	
Varied, but AWVPs generally sparse but where present on edge adjacent woodland include some Wood Anemone*, Yellow Archangel* and Wood Speedwell*.	
Deadwood	
Frequent fallen brush. Small diameter dead branches.	
Management	
Evidence of tree shelters used for woodland planting.	
Evidence of Damage/Deterioration	

Project Number: 5719	**Project Name**: Downlands Farm
Woodland Compartment Ref: W8b (**Woodland adj. A22 - South**).	
General Description	
Ash/Oak woodland mostly young to semi-mature with moderately dense understory and patchy ground flora.	
Tree Canopy Composition, Age Class etc.	
Frequent young-to semi-mature Oak, Ash and Sycamore, together with Hornbeam*, Sweet Chestnut and Horse Chestnut.	
Understory	
Hazel dominant with Hawthorn and occasional Sycamore*.	
Ground Flora	
The ground flora contains is patchy, containing Wood Anemone* and Yellow Archangel*. There is a small Bluebell* carpet in the south. Other species include Dog's Mercury, Male Fern, Bramble, Lords and Ladies, Ground Ivy, Lesser Celandine and Cleavers.	
Deadwood	
There is frequent fallen deadwood comprising mainly collapsed Birch and Sweet Chestnut.	
Management	
None	
Evidence of Damage/Deterioration	
Ash dieback (*Chalara*) evident.	

Project Number: 5719	**Project Name**: Downlands Farm
Woodland Compartment Ref: W8c (**Woodland adj. A22 - South**).	
General Description	
Mainly replanted woodland.	
Tree Canopy Composition, Age Class etc.	
Canopy trees comprising Ash, Sweet Chestnut and occasional Oak.	
Understory	
Moderately dense. Young Hazel, Field Maple*, Hawthorn, Dogwood and Oak (evidence of tree shelters).	
Ground Flora	
The ground flora is generally sparse, but a section near to the A22 contains frequent Bluebell* carpets, together with frequent Wood Anemone*. Other species include Dog's Mercury, Lords-and-Ladies, Enchanter's-nightshade and Ground Ivy,	
Deadwood	
Not Significant. Some fallen branches.	
Management	
Planting	
Evidence of Damage/Deterioration	
None apparent	

Project Number: 5719	**Project Name**: Downlands Farm
Woodland Compartment Ref: W8d (**Woodland adj. A22 - South**).	
General Description	
Young woodland.	
Tree Canopy Composition, Age Class etc.	
Canopy trees comprising dense stands where Oak is dominant, and Ash is abundant. Field Maple*, Hazel, Hawthorn and Blackthorn all occur occasionally.	
Understory	
Moderately dense. Some large gaps in planting which are dominated by Bramble and regenerating Birch.	
Ground Flora	
The ground flora is generally sparse, although Bugle, Ground Ivy, Enchanters-nightshade, Ragwort Germander Speedwell and Common Mouse-ear were recorded.	
Deadwood	
Not Significant.	
Management	
Planting	
Evidence of Damage/Deterioration	
None apparent	

Project Number: 5719	**Project Name**: Downlands Farm

Woodland Compartment Ref: W9 (**Fir Tree Grove**).

General Description

Fir Tree Grove comprises a mature canopy with a variable structure, dominated by Ash (experiencing Ash dieback) with frequent Scots Pine, especially in the west.

Tree Canopy Composition, Age Class etc.

A variety of age classes are present. A number of mature Pedunculate Oaks are present in the vicinity of the house as is Sycamore alongside a veteran Beech and a substantial Monterey Pine.

Understory

Sparse to very sparse across the majority of the woodland, although the density of the understorey increases locally, especially at the margins. The most prominent species comprise Hawthorn, Hazel, and Spindle, while small, localised Holly* thickets are present. In addition, Sycamore is frequent within the understorey, forming a dense sub-canopy in places.

Ground Flora

Much of the ground flora is dominated by a dense carpet of Bluebell*, frequently accompanied by Wood Speedwell*, Wood Anemone*, and Three-nerved Sandwort*, particularly towards the east. Wood Meadow-grass* is dominant towards the north-west, interspersed with patches of bare ground. Elsewhere, the ground flora is locally suppressed by needle drop from Pines, especially along the western margin, while localised dense stands of Bramble, Holly*, Rhododendron and Cherry Laurel similarly suppress the ground flora. Bracken is colonising locally in the vicinity of the house, while a patch of the invasive species Himalayan Balsam was recorded in the eastern extreme of the ancient woodland, extending offsite to the north, with isolated specimens also recorded elsewhere along the south-eastern margin of the ancient woodland. A total of 20 AWIs are present.

Deadwood

Limited standing or fallen deadwood present save for a small number of notable exceptions, such as that present in the veteran Beech which is largely hollow.

Management

Evidence of Damage/Deterioration

The south-western boundary of the woodland, adjacent to Rocks Road, is heavily dominated by Cherry Laurel and Rhododendron.

5719 – Downlands Farm. Botanical Species Lists and AWI Summary.

Table 1. Budletts Wood

Species (Common Name)	**Species (Scientific Name)**	Area 4c (clearing)	Area 4d (wet wood)	Area 4e (oak)
CANOPY TREES				
Hornbeam	***Carpinus betulus***			
Aspen	***Populus tremula***			☑
Wild Cherry	***Prunus avium***			
Sycamore	*Acer pseudoplatanus*			☑
Alder	*Alnus glutinosa*			
Silver Birch	*Betula pendula*	O	F	A
Downy Birch	*Betula pubescens*		☑	O
Sweet Chestnut	*Castanea sativa*	F		☑
Beech	*Fagus sylvatica*			
Ash	*Fraxinus excelsior*	D		
Scots Pine	*Pinus sylvestris*			
White Poplar	*Populus alba*			
Pedunculate Oak	*Quercus robur*		O	D
Rowan	*Sorbus aucuparia*			O
Grey Willow	*Salix cinerea*		F	
Western Red Cedar	*Thuja picata*		R	
Lime	*Tilia x Europaea*			
Eastern Hemlock	*Tsuga canadensis*			
UNDERSTORY SP.				
Alder Buckthorn	***Frangula alnus***			
Guelder Rose	***Viburnum opulus***			
Holly	***Ilex aquifolium***	**F**	☑	**F**
Wild Service	***Sorbus torminalis***			
Hazel	*Corylus avellana*		☑	
Hawthorn	*Crataegus monogyna*			
Broom	*Cytisus scoparius*	O		
Shallon	*Gaultheria shallon*			
Ivy	*Hedera helix*			
Honeysuckle	*Lonicera periclymenum*	☑	F	F
Bramble	*Rubus fruticosus agg.*			
Damson	*Prunus domestica subsp. insititia*			R
Blackthorn	*Prunus spinosa*			
Rhododendron	*Rhododendron sp.*	D	☑	O
Bramble	*Rubus fruticosus agg.*		☑	O
Elder	*Sambucus nigra*			
Yew	*Taxus baccata*			
VASCULAR PLANTS				
Wood Anemone	***Anemone nemorosa***			**LF**
Hard Fern	***Blechnum spicant***		☑	
Pendulous Sedge	***Carex paniculata***		**R**	
Thin-spiked Wood-sedge	***Carex strigosa***		**R**	
Wood-sedge	***Carex sylvatica***		**O**	
Opposite-leaved Golden Saxifrage	***Chrysosplenium oppositifolium***			
Pignut	***Conopodium majus***			

Species (Common Name)	**Species (Scientific Name)**	Area 4c (clearing)	Area 4d (wet wood)	Area 4e (oak)
Narrow Buckler Fern	***Dryopteris carthusiana***			
Wood Spurge	***Euphorbia amygdaloides***			
Creeping Soft Grass	***Holcus mollis***			**R**
Bluebell	***Hyancinthoides non-scripta***	**LA**		**LF**
Yellow Archangel	***Lamiastrum galeobdolon***			
Hairy Woodrush	***Luzula pilosa***			
Yellow Pimpernel	***Lysimachia nemorum***		☑	
Common Cow-wheat	***Melampyrum pratense***			**F-LA**
Three-nerved Sandwort	***Moehringia trinervia***			
Wood-sorrel	***Oxalis acetosella***	**O**		
Hart's-tongue Fern	***Phyllitis scolopendrium***			
Soft Shield-fern	***Polystichum setiferum***			
Barren Strawberry	***Potentilla sterilis***			
Primrose	***Primula vulgaris***		☑	
Red Currant	***Ribes rubrum***			
Black Currant	***Ribes nigram***			
Lesser Skullcap	***Scutellaria minor***	**LA**		
Wood Speedwell	***Veronica montana***		☑	
Early Dog Violet	*Viola reichenbachiana*		**O**	
Bugle	*Ajuga reptans*			
Wild Angelica	*Angelica sylvestris*			
Fool's Watercress	*Apium nodiflorum*			
Lords and Ladies	*Arum maculatum*			
False Brome	*Brachypodium sylvaticum*			
Ling Heather	*Calluna vulgaris*	O		
Cuckoo Flower	*Cardamine pratensis*			O
Wavy Bittercress	*Cardamine flexuosa*			
Enchanter-s-nightshade	*Circaea lutetiana*	O	☑	
Marsh Thistle	*Cirsium pasustre*		R	
Foxglove	*Digitalis purpurea*			
Broad Buckler-Fern	*Dryopteris dilatata*		R	O
Male-fern	*Dryopteris filix-mas*		O	
Wild Strawberry	*Fragaria vesca*		R	
Cleavers	*Galium aparine*		R	
Shallon	*Gaultheria shallon*			
Herb-Robert	*Geranium robertianum*			
Wood Avens	*Geum urbanum*		☑	
Ground-Ivy	*Glechoma hederacea*	☑		
Soft-rush	*Juncus effusus*		R	
Variegated Yellow Archangel	*Lamiastrum galeobdolon*			
Gypsywort	*Lycopus europaeus*			
Dog's Mercury	*Mercurialis perennis*			
Water Mint	*Mentha aquatica*			
Common Twayblade	*Neottia ovata*			
Hemlock Water Dropwort	*Oenanthe crocata*			

Species (Common Name)	**Species (Scientific Name)**	Area 4c (clearing)	Area 4d (wet wood)	Area 4e (oak)
Tormentil	*Potentilla erecta*	O	☑	
Creeping Cinquefoil	*Potentilla reptans*		R	
Bracken	*Pteridium aquilinum*	☑	O	F
Japanese Knotweed	*Reynoutria japonica*			
Creeping Buttercup	*Ranunculus repens*			
Common Figwort	*Scrophularia nodosa*		☑	
Skullcap	*Scutelaria galericulata*	R	R	
Devil's-bit Scabious	*Succisa pratensis*	O	☑	
Wood Sage	*Teucrium scorodonia*			
Stinging Nettle	*Urtica dioica*			
Germander Speedwell	*Veronica chamaedrys*			
Ivy-leaved Speedwell	*Veronica hederifolia*			
Common Dog-violet	*Viola riviniana*		☑	
AWVP Count		**3**	**7**	**4**
AWI Count		**4**	**8**	**6**

Table 2. Southern Woodland Areas

Species (Common Name)	**Species (Scientific Name)**	**Area 5 – Shermanreed Wood**	Area 5b (young woodland)	**Area 6a – Longwood Gill**	Area 6b - Longwood Gill – Copse	**Area 7**	**Area 8a**	**Area 8b**	**Area 8c**	**Area 8d**	**Area 9**
Canopy Trees											
Hornbeam	***Carpinus betulus***			**R**		**O**		**R**			**O**
Aspen	***Populus tremula***							**R**	**O**		
Wild Cherry	***Prunus avium***	**O**		**R**							**O**
Sycamore	*Acer pseudoplantanus*	O		LD		R		O	O		O
Horse-chestnut	*Aesculus hippocastanum*							R			R
Alder	*Alnus glutinosa*	LA					O	O			
Silver Birch	*Betula pendula*	F		A	O	A	F			LF	O
Beech	*Fagus sylvatica*	O		R	R	R		R			O
Ash	*Fraxinus excelsior*	O		O		F	F	F		A	D
European Larch	*Larix decidua*	LF									
Pedunculate Oak	*Quercus robur*	A	F	A	O	F	D	D	O	D	O
Spruce	*Picea sp.*			☑							
Monterey Pine	*Pinus radiata*										R
Scots Pine	*Pinus sylvestris*	LF				R					LF
Goat Willow	*Salix caprea*			O	F	F	A				
Grey Willow	*Salix cinereal*	O		O	O	☑					
Sweet Chestnut	*Sativa castenea*	F		O		O			F		R
Coast Redwood	*Sequoia sempervirens*			☑							
Rowan	*Sorbus aucuparia*										R
English Elm	*Ulmus procera*										O
Cypress	*Cupressus sp.*										R
Yew	*Taxus baccata*										O
UNDERSTORY SPECIES											
Field Maple	***Acer campestre***	**F**	**F**		**O**		**O**	**O**		**O**	**O**
Holly	***Ilex aquifolium***	**F**		**O**	**O**	**O**		**O**	**R**		**LA**
Guelder Rose	***Viburnum opulus***	**R**									
Wild Service	***Sorbus torminalis***										
Crab Apple	***Malus sylvestris***			**R**							
Field Rose	***Rosa arvensis***										**R**
Dogwood	*Cornus sanguinea*				O						R
Hazel	*Corylus avellana*	F	F	A		A	O	A	F	O	F
Hawthorn	*Crataegus monogyna*	R		LF		F	F	F		O	F
Spindle	*Euonymus europaeus*			O				O			O-F
Ivy	*Ilex aquifolium*	O		O		O					

Species (Common Name)	Species (Scientific Name)	Area 5 – Shermanreed Wood	Area 5b (young woodland)	Area 6a – Longwood Gill	Area 6b - Longwood Gill – Copse	Area 7	Area 8a	Area 8b	Area 8c	Area 8d	Area 9
Honeysuckle	*Lonicera periclymenum*	F		F		A		O			O
	Prunus laurocerasus										O-LA
Blackthorn	*Prunus spinosa*	R		LA	O					O	
White Poplar	*Populus alba*							LF (seedlings)			
Creeping Buttercup	*Ranunculus repens*						O				
Rhododendron	*Rhododendron sp.*	LF									O
Dog Rose	*Rosa canina*				O						R
Bramble	*Rubus fruticosus agg.*	O		O	O	O	R	O		LF	
Elder	*Sambucus nigra*	R		O							R
Vascular Plants											
Wood Anemone	***Anemone nemorosa***	**LF**		**LA (co-D with BB)**		**LA (co-D with BB)**	**R**	**A**	**F**		**O**
Hard Fern	***Blechnum spicant***					**O**					
Pendulous Sedge	***Carex paniculata***	**O**	**R**			**O**					**R**
Remote Sedge	***Carex remota***	**O**				**O**					
Thin-spiked Wood-sedge	***Carex strigosa***										
Wood-sedge	***Carex sylvatica***	**O**	**R**	**O**	**O**	**O**		**O**			**LF**
Opposite-leaved Golden Saxifrage	***Chrysosplenium oppositifolium***	**O (stream)**				**R**					
Pignut	***Conopodium majus***			**O**							
Narrow Buckler Fern	***Dryopteris carthusiana***	**R**									
Wood Spurge	***Euphorbia amygdaloides***	**O**				**R**					**R**
Creeping Soft Grass	***Holcus mollis***		**F**	**O**		**O-R**					
Bluebell	***Hyancinthoides non-scripta***	**LA-D**		**LA (co-D with WA)**	**O**	**LA (co-D with WA)**		**O**	**F**		**LD**
Tutsan	***Hypericum androsaemum***										
Yellow Archangel	***Lamiastrum galeobdolon***	**O**		**O**		**O (LA by stream)**		**O**			
Hairy Wood-rush	***Luzula pilosa***	**R**		**R**		**R**					**R**
Great Wood Rush	***Luzula sylvatica***			**O**							
Yellow Pimpernel	***Lysimachia nemorum***	**R**		**O-LF**		**O**		**LF**			
Common Cow-wheat	***Melampyrum pratense***										
Wood Mellick	***Melica uniflora***	**O**									**R**
Three-nerved Sandwort	***Moehringia trinervia***	**O/LF**		**R**	**LF**	**R**		**R**			**F**
Early Purple Orchid	***Orchis mascula***										**R**
Wood-sorrel	***Oxalis acetosella***	**O**				**R**					
Hart's-tongue Fern	***Phyllitis scolopendrium***	**R**		**O**	**O**						

Species (Common Name)	**Species (Scientific Name)**	**Area 5 – Shermanreed Wood**	Area 5b (young woodland)	**Area 6a – Longwood Gill**	Area 6b - Longwood Gill – Copse	**Area 7**	**Area 8a**	**Area 8b**	**Area 8c**	**Area 8d**	**Area 9**
Wood Meadow Grass	***Poa nemoralis***	**F**									**LA**
Soft Shield-fern	***Polystichum setiferum***	**R**				**R**					
Barren Strawberry	***Potentilla sterilis***		**R**			**R**					**R**
Primrose	***Primula vulgaris***	**O**	**R**	**F**	**O**	**O**		**R**			**O**
Goldilocks Buttercup	***Ranunculus auricomus***	**R**									
Red Currant	***Ribes rubrum***	**R**				**R**		**R**			
Black Currant	***Ribes nigram***										**R**
Black Bryony	***Tamus communis***										**R**
Wood Speedwell	***Veronica montana***	**LF**		**O**		**O**		**R**			**F**
Early Dog Violet	***Viola reichenbachiana***	**F**		**R**		**O**					
Bugle	*Ajuga reptans*	F				O		O		LF	O
Garlic Mustard	*Alliaria petiolata*	O									R
Angelica	*Angelica sylvestris*										
Cow Parsley	*Anthriscus sylvestris*			R							
Lesser Burdock	*Arctium minus agg.*										R
Lords-and-Ladies	*Arum maculatum*	O		O		R	R	O	O		O
False Wood Brome	*Brachypodium sylvaticum*	O		R	O						
Soft Brome	*Bromus hordeaceus*					R					
Hedge Bindweed	*Calystegia sepium*	O									
Cuckooflower	*Cardamine pratensis*	F		R							R
Wavy Bittercress	*Cardamine flexuosa*					R					R
Common Mousear	*Cerastium fontanum*			R						O	R
Enchanter's-nightshade	*Circaea lutetiana*	F		O		O		O	R	O	R
Creeping Thistle	*Cirsium arvense*			O							
Marsh Thistle	*Cirsium palustre*										R
Crosswort	*Cruciata laevipes*										
Common Spotted-orchid	*Dactylorhiza fuchsii*							R			
Tufted Hairgrass	*Deschampsia cespitosa*					O					
Foxglove	*Digitalis purpurea*	O		R							R
Broad Buckler-fern	*Dryopteris dilatata*	F									O
Male-fern	*Dryopteris filix-mas*	O		F		O	R	R			O
Great Willowherb	*Epilobium hirsutum*			R							
Wild Strawberry	*Fragaria vesca*										
Cleavers	*Galium aparine*	O		O		F		R			O
Herb-Robert	*Geranium robertianum*	O									R
Wood Avens	*Geum urbanum*	O		R		F					O
Ground Ivy	*Glechoma hederacea*	F		A		F		O	F	LF	O
Giant Rhubarb	*Gunnera sp.*	R									
Meadowsweet	*Filipendula ulmaria*										

Species (Common Name)	**Species (Scientific Name)**	**Area 5 – Shermanreed Wood**	Area 5b (young woodland)	**Area 6a – Longwood Gill**	Area 6b - Longwood Gill – Copse	**Area 7**	**Area 8a**	**Area 8b**	**Area 8c**	**Area 8d**	**Area 9**
Hogweed	*Heracleum sphondylium*	O		R							O
Hop	*Humulus lupulus*	R									
Square-staked St. John's Wort	*Hypericum tetrapterum*										R
Himalayan Balsam	*Impatiens glandulifera*										O
Yellow Balsam	*Impatiens sp.*			LA		☑					R
Common Ragwort	*Jacobaea vulgaris*										
Toad Rush	*Juncus bufonius*	R									
Soft Rush	*Juncus effusus*			R							
Nipplewort	*Lapsana communis*	R									
Bird's-foot Trefoil	*Lotus corniculatus*										R
Field Woodrush	*Luzula campestris*										R
Ragged-Robin	*Lychnis flos-cuculi*	R									
Gypsywort	*Lycopus europaeus*					O					
Water Mint	*Mentha aquatica*					O					
Dog's Mercury	*Mercurialis perennis*	O-R		LA		O		LF	F		
Wood Forget-me-knot	*Myosotis sylvatica*										R
Pin-sorrel	*Oxalis articulata*										R
Daffodil	*Narcissus sp.*										R
Common Twayblade	*Neottia ovata*	R									
Water-Pepper	*Persicaria hydropiper*										
Butterbur	*Petasites hybridus*	O									
Rough-stalked Meadow-grass	*Poa trivialis*		A								
Creeping Cinquefoil	*Potentilla reptans*	R									O
Bracken	*Pteridium aquilinum*	O		LA							
Lesser Celandine	*Ranunculus ficaria*	O		O		F		O			
Lesser Spearwort	*Ranunculus flammula*	R									
Creeping Buttercup	*Ranunculus repens*	O									R
Japanese Knotweed	*Reynoutria japonica*	R									
Wood Dock	*Rumex sanguineus*	O		O	O						O
Water Figwort	*Scrophularia auriculata*	O									R
Skullcap	*Scutelaria galericulata*	F									
Common Figwort	*Scrophularia nodosa*	R				R					O
Lesser Skullcap	*Scutellaria minor*										
Red Campion	*Silene dioica*	O		F							O
Hedge Woundwort	*Stachys sylvatica*	O		R							
Greater Stitchwort	*Stellaria holostea*	F				O (LF)					
Common Chickweed	*Stellaria media*	R									
Wood Sage	*Teucrium scorodonia*	F						R			
Stinging Nettle	*Urtica dioica*	O		O (L-F)							R

Species (Common Name)	**Species (Scientific Name)**	**Area 5 – Shermanreed Wood**	Area 5b (young woodland)	**Area 6a – Longwood Gill**	Area 6b - Longwood Gill – Copse	**Area 7**	**Area 8a**	**Area 8b**	**Area 8c**	**Area 8d**	**Area 9**
Brooklime	*Veronica beccabunga*					O					
Germander Speedwell	*Veronica chamaedrys*	F		F		O				O	R
Ivy-leaved Speedwell	*Veronica hederifolia*			R							R
Thyme-leaved Speedwell	*Veronica serpyllifolia*										R
Common Dog Violet	*Viola riviniana*	O	O		R	O		R			F
AWVP Count		**22**	**5**	**14**	**3**	**19**	**1**	**9**	**2**	**0**	**15**
AWI Count		**26**	**6**	**18**	**5**	**21**	**2**	**13**	**4**	**1**	**20**

Annex 5719/5:

Grassland Botanical Survey (Snatt's Road) – Detailed Results and Species Lists

Downlands (5719). Grassland Botanical Surveys. Snatts Road Grassland

A detailed botanical assessment was undertaken of two areas of grassland identified during the Phase 1 survey as potentially representing Priority habitats. The surveys were undertaken on 15th and 16th July 2020.

Methodology

Area SI4 comprises an area of grassland with invading scrub adjacent to Snatts Road, identified during the Phase 1 survey as being relatively species-rich. A FEP survey was undertaken as described above. In addition, an NVC survey was undertaken, comprising the recording of plant species present within a series of quadrats located at random across the area. The cover of each species present within each quadrat was also assessed.

Prior to undertaking the NVC survey, the area was assessed to identify whether different NVC grassland communities were present within the survey since, if this were the case, each community should be subject to separate survey. However, although there was some variation in vegetation cover across the site, a number of species were consistently frequent throughout the whole area and it was concluded that the site should be considered to support a single grassland community type[1]. Accordingly, a single NVC survey, comprising recording within five 2mx2m quadrats was undertaken. Although the precise locations of quadrats were selected at random, general locations were selected to provide broad coverage of the grassland habitat within the site, while avoiding close proximity to any of the mature trees present within the site (i.e. areas that would be heavily shaded by the trees).

The results of the NVC survey were assessed using the MAVIS (Ver 1.03) computer programme to identify best matches to recognised NVC communities.

Results

The FEP transect survey for Area SI4 are shown at Table 1, with the results of the NVC survey presented in Table 2. Figures 1 to 4 show outputs from MAVIS analysis of the NVC survey data.

[1] In addition to the grassland, some areas were recorded to support dense growth of Oak *Quercus robur* saplings or dense Bracken. These were excluded from the survey.

Table 1 Area SI4 Transect Survey Results

Species*/Quadrat	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**		**No. of stops**	**Frequency**
Salix cinerea	X	-	-	-	-	-	-	-	-	-		1	Rare
Quercus robur	X	X	X	-	-	-	-	X	X	-		5	Frequent
Potentilla erecta	X	-	-	X	X	X	X	X	X	X		8	Frequent
Holcus lanatus	X	X	X	X	-	X	-	X	X	X		7	Frequent
Agrostis stolonifera	X	-	X	-	-	X	X	-	-	-		4	Occasional
Anthoxanthum odoratum	X	X	X	X	X	X	-	X	X	X		9	Frequent
Ajuga reptans	**X**	**-**	**-**	**-**	**-**	**-**	**-**	**X**	**-**	**-**		**2**	**Rare**
Juncus conglomeratus	X	X	X	X	X	X	X	X	-	-		8	Frequent
Lotus pedunculatus	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**		**10**	**Frequent**
Dactylis glomerata	X	-	-	X	-	-	-	-	X	-		3	Occasional
Arrhenatherum elatius	-	X	X	-	-	X	-	-	-	-		3	Occasional
Agrostis capillaris	-	X	-	-	-	-	-	X	X	X		4	Occasional
Potentilla anserina	-	X	-	-	-	-	-	-	-	-		1	Rare
Plantago lanceolata	-	X	-	-	-	-	X	X	X	X		5	Frequent
Cirsium palustre	-	X	-	X	X	-	-	-	-	-		3	Occasional
Rumex acetosa	-	X	X	X	X	X	-	-	-	-		5	Frequent
Vicia tetrasperma	-	X	X	-	-	-	-	-	-	-		2	Rare
Ranunculus repens	-	X	-	-	-	-	-	-	-	-		1	Rare
Juncus effusus	-	-	X	X	X	-	-	-	-	-		3	Occasional
Rubus fruticosus agg.	-	-	-	X	-	-	X	X	-	X		4	Occasional
Convolvulus arvensis	-	-	-	X	-	-	-	-	-	-		1	Rare
Pulicaria dysenterica	-	-	-	-	X	-	X	-	-	-		2	Rare
Calystegia sepium	-	-	-	-	X	X	-	-	-	-		2	Rare
Lathyrus pratensis	-	-	-	-	-	X	-	-	-	-		1	Rare
Pteridium aquilinum	-	-	-	-	-	-	X	-	-	-		1	Rare
Rosa arvensis	-	-	-	-	-	-	X	X	-	-		2	Rare
Holcus mollis	-	-	-	-	-	-	X	-	-	-		1	Rare
Veronica chamaedrys	-	-	-	-	-	-	X	-	-	X		2	Rare
Hypericum pulchrum	-	-	-	-	-	-	X	-	-	-		1	Rare
Carex sylvatica	-	-	-	-	-	-	X	-	-	X		2	Rare
Carex flacca	**-**	**-**	**-**	**-**	**-**	**-**	**X**	**-**	**-**	**-**		**1**	**Rare**
Melampyrum pratense	-	-	-	-	-	-	-	X	X	-		2	Rare
Luzula campestris	-	-	-	-	-	-		X	-	-		1	Rare
Succisa pratensis	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**X**	**-**	**-**		**1**	**Rare**
Carex pallescens	-	-	-	-	-	-	-	-	-	X		1	Rare
Centaurea nigra	-	-	-	-	-	-	-	-	-	X		1	Rare
Total species per 1m^2 quadrat	10	13	10	11	9	10	14	14	9	11			
Mean species/quadrat													**11.1**

Table 3 Area SI4 NVC Quadrat Survey Results

Species		**Q1**	**Q2**	**Q3**	**Q4**	**Q5**	**Constancy**
Rubus fruticosus agg.		8	8	5	-	7	IV
Juncus conglomeratus		2	4	3	9	3	V
Anthoxanthum odoratum		3	6	8	5	6	V
Agrostis stolonifera		6	5	5	4	3	V
Plantago lanceolata		3	1	4	-	5	IV
Potentilla erecta		7	-	6	6	7	IV
Dactylis glomerata		4	2	3	-	4	IV
Festuca rubra		2	-	-	-	4	II
Holcus lanatus		1	-	-	6	3	III
Luzula campestris		1	-	-	-	1	II
Quercus robur		1	2	4	1	1	V
Lotus pedunculatus		1	2	2	-	3	IV
Pulicaria dysenterica		-	5	-	-	-	I
Melampyrum pratense		-	-	4	-	-	I
Viola riviniana		-	-	5	-	3	II
Ajuga reptans		-	-	2	-	2	II
Lotus corniculatus		-	-	-	1	-	I
Convolvulus arvensis		-	-	-	3	-	I
Vicia tetrasperma		-	-	-	1	-	I
Cirsium palustre		-	-	-	3	-	I
Arrhenatherum elatius		-	-	-	3	1	II
Rumex acetosa		-	-	-	2	-	I
Juncus acutiflorus		-	-	-	2	-	I
Agrostis canina		-	-	-	1	-	I
Hypericum pulchrum		-	-	-	-	1	I
Centaurea nigra		-	-	-	-	2	I
Primula vulgaris		-	-	-	-	2	I
Potentilla sterilis		-	-	-	-	2	I
Species per quadrat		**12**	**9**	**12**	**14**	**19**	

Fig. 1 MAVIS Analysis of Area SI4 Quadrat Data

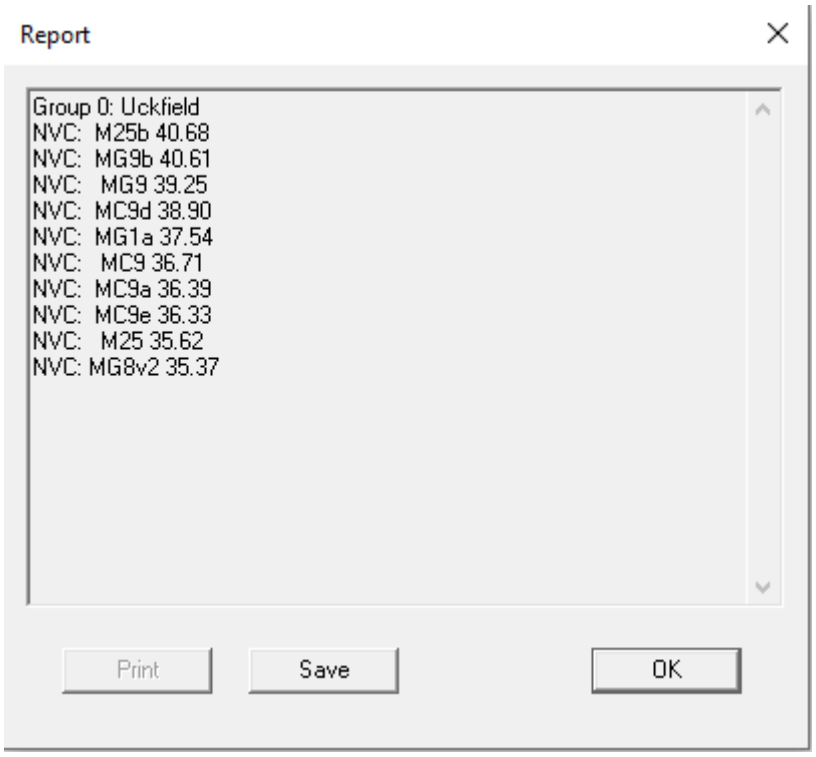


Fig. 2 MAVIS Analysis of Area SI4 Quadrats excluding Invasive Oak and Bramble

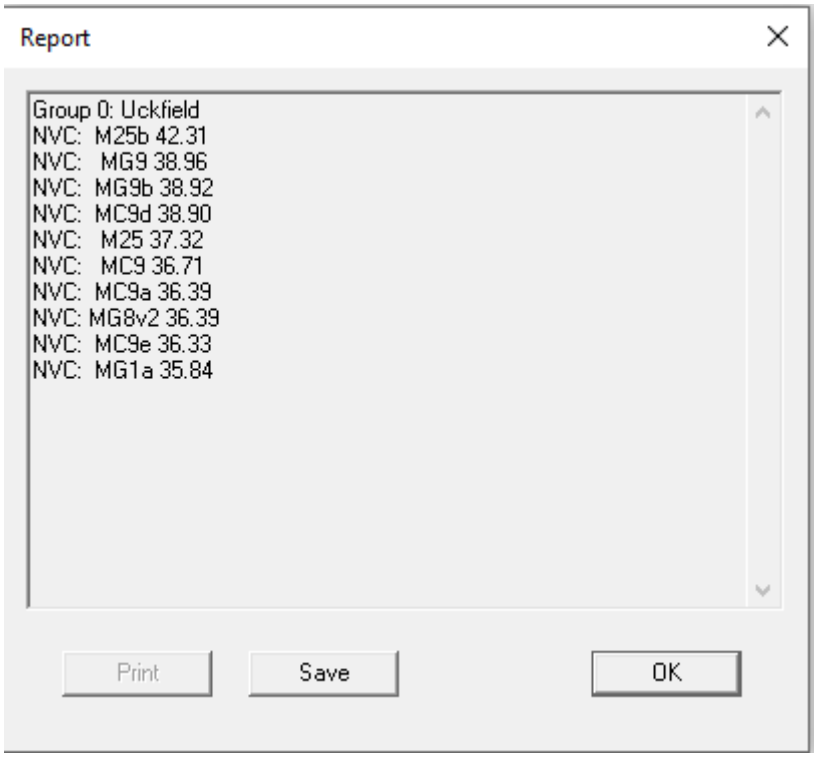
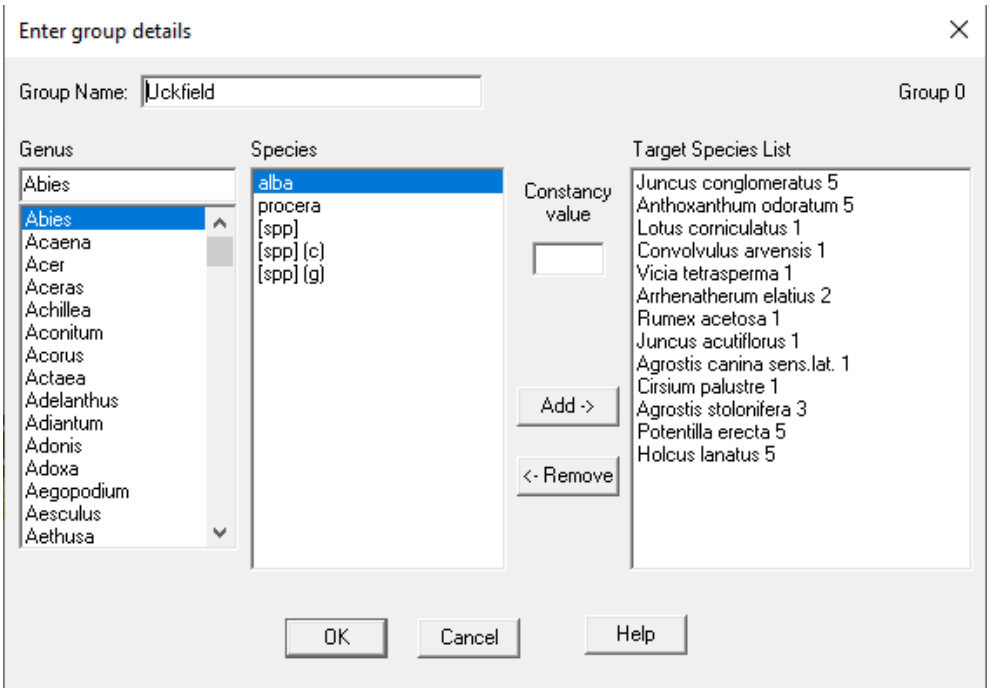
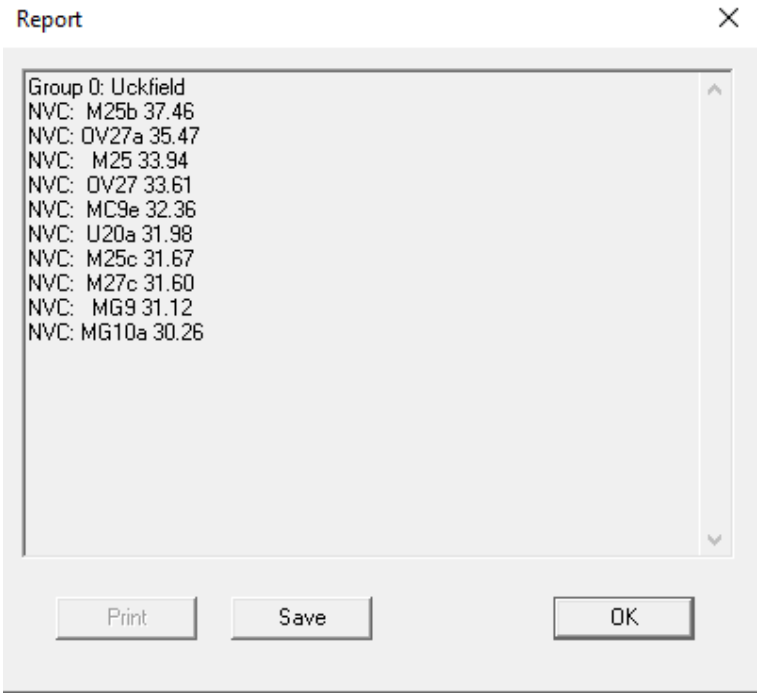


Fig. 3 Area SI4, Quadrat 4 using Dring[2] Constancy/Cover Relationship and excluding Oak and Bramble: Species and estimated constancy



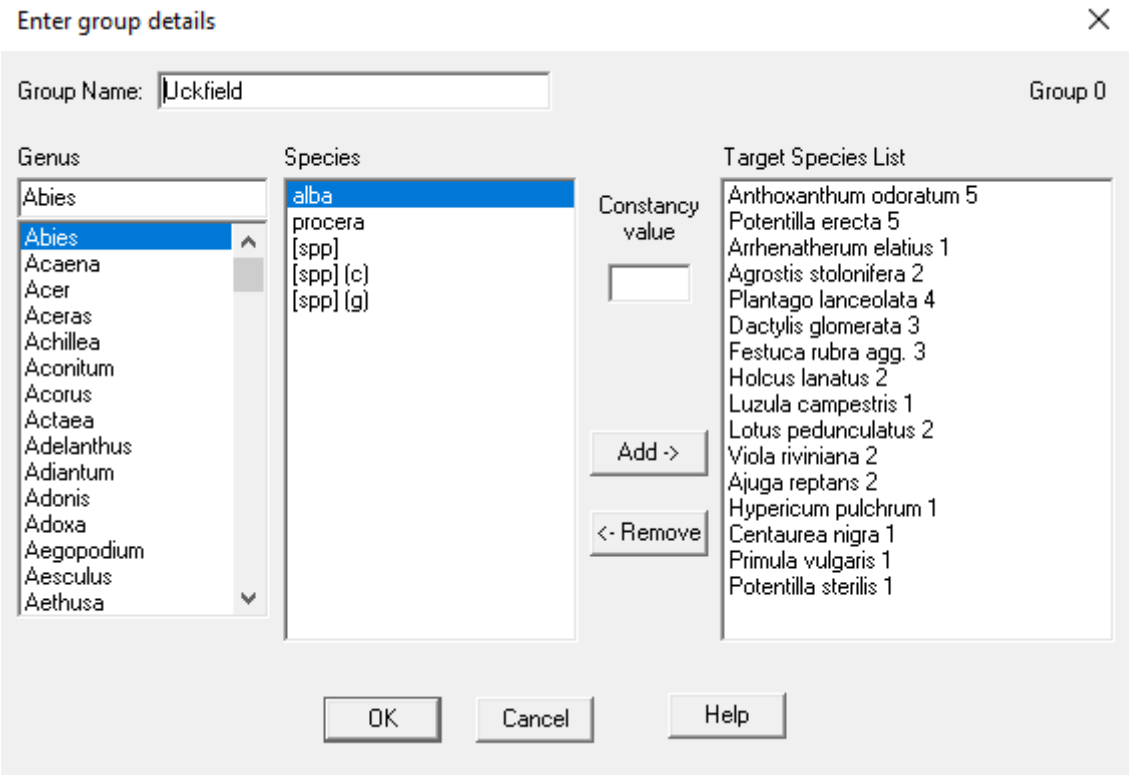
MAVIS Analysis



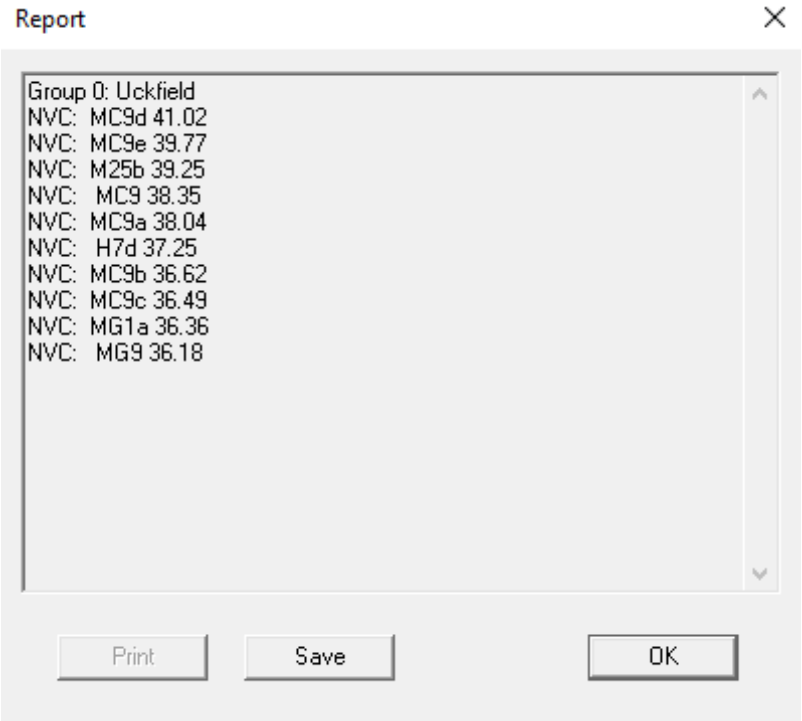
[2] Dring, J.S. (2000) SIMIL: A suite of programs for calculating the similarity between new quadrat data and the units of the National Vegetation Classification. Unit of Vegetation Science. Lancaster University.

Fig. 4 Area SI4, Quadrat 5 using Dring Constancy/Cover Relationship and excluding Oak and Bramble:

Species and estimated constancy



MAVIS Analysis



Discussion

The sward within Area SI4 supports a range of rushes, sedges and other species, such as Marsh Thistle *Cirsium palustre*, which are indicative of damp conditions. Although the ground was dry at the time of survey it is likely that the area is seasonally damp. The herbaceous vegetation appears to be being invaded by scrub, notably Oak, Bramble and Grey Willow *Salix cinerea*.

Results of the FEP transect survey are shown in Table 3 above. A total of 36 plant species were recorded within the ten quadrats, with a mean of 11.1 species per quadrat.

Following FEP Key 2a, the grassland has cover of Rye-grasses *Lolium* spp. and White Clover *Trifolium repens* at less than 10%, but the sward is not species rich (11.1 species/m^2 compared with a threshold of more than 15 species/m^2). The cover of wildflowers and sedges is considered to meet the 30% threshold identified in the key. This identifies the area as supporting species-rich grassland restorable to, good quality, although it does not match any particular Priority Habitat type and cannot be categorised as such.

Taking into account the local soil type (slightly acid with impeded drainage) and the species recorded, it is considered that the vegetation most closely corresponds to Purple Moor-grass and Rush Pasture BAP priority habitat, although Purple Moor Grass is notably absent. Within the survey quadrats, four indicator species for this habitat (as identified in FEP Key 2b, Table 5) were recorded, namely Greater Bird's-foot Trefoil *Lotus pedunculatus* (frequent) Glaucus Sedge *Carex flacca* (rare) Devil's-bit Scabious *Succisa pratensis* (rare) and Bugle *Ajuga repens* (rare). Following Key 2b, the presence of four indicator species, but below the threshold frequency (at least two frequent and two occasional in the sward), identifies the vegetation as species-rich grassland albeit not a particularly representative example, and of only moderate quality.

The condition assessment for Purple moor-grass and rush pasture (G07) considers a number of factors, including the cover of undesirable species. In this respect the BAP habitat fails in terms of the cover of invasive trees and shrubs (being >5%), whilst meeting the other cover criteria relating to undesirable species, large sedge species, and non-jointed rushes. Therefore, although qualifying, it is below the 'good condition' threshold. It is considered to be in poor and declining condition, although the decline is likely to be reversible through appropriate management.

The FEP key was designed for use in agri-environment schemes and, as such, offers a relatively simplistic approach to vegetation identification. To provide a more robust analysis of the vegetation type present within Area 2, data from the series of 2mx2m quadrats was analysed using MAVIS and also by reference to vegetation keys set out in the NVC Handbooks[3].

Results of MAVIS analysis of the quadrat data are shown at Fig. 1. The Figure lists the ten closest matching vegetation types to the quadrat data. The closest match is M25 *Molinia caerulea- Potentilla erecta* mire, *Anthoxanthum odoratum* sub-community, which is one of the NVC communities included within the UK BAP definition for Purple Moor-grass and Rush Pasture. However, the coefficient of similarity (goodness-of-fit) is just 40.68, indicating that the data is a very poor match[4] to this community. The MG9 *Holcus lanatus-Deschampsia cespitosa* grassland, *Arrhenatherum elatius* sub-

[3] British Plant Communities Volumes 2 & 3, J.S. Rodwell (Ed) 1991

[4] TABLEFIT Version 1.0, for identification of vegetation types. M.O. Hill 1996

community has an almost identical coefficient of similarity (40.61), while the resemblance to MC9 *Festuca rubra-Holcus lanatus* maritime grassland is almost as great (39.25).

The conclusion from the MAVIS analysis is that the vegetation in Area 2 bears some similarities to a number of different community types, but is a very poor match to any. With a coefficient of similarity of less than 50, it cannot be confidently matched to any one community.

The area appears to have been unmanaged for some time and, even having avoided sampling within areas of densest scrub, Oak and Bramble were both constant species within the quadrats. In case invasive scrub was obscuring a resemblance to a particular mire or grassland community, the MAVIS analysis was re-run excluding Bramble and Oak from the data. Figure 2 shows the result of this analysis: there is a marginally closer match of the data to an M25 community but it remains very poor.

Another possible reason for obtaining a poor match to any one community is that the survey may have inadvertently sampled from more than one vegetation type. For instance, the quadrats could have sampled within areas of both M25 mire and MG9 grassland. While this was not considered to be the case while surveying, nonetheless this possibility was investigated by analysis of individual quadrat data for quadrats 4 and 5. These quadrats were selected because they were the most species-rich quadrats and, therefore, the most likely to represent the highest quality habitats. To enable NVC analysis of single quadrats within MAVIS, species abundance (cover) was converted to frequency using the method described by Dring (2000), as set out in the MAVIS User Manual (2016). Again, Bramble and Oak were excluded from the analyses. However, as shown in Figures 3 and 4, both of these individual quadrats showed an even poorer match to any community and it is concluded that the lack of an overall match to a specific community is not the result of any error in survey technique.

Reviewing habitat descriptions from Rodwell (1991), the M25 community is "characterised throughout by the overwhelming abundance of *Molinia*". Since this species appears to be absent from the survey area, it is considered that the vegetation cannot represent this community. Using the Key to Mires in Volume 2 of Rodwell (1991) the habitat fails to key out. Using the Mesotrophic Grassland and Acid Grassland keys in Volume 3 of Rodwell (1991), the habitat does not key out satisfactorily, although perhaps the closest match is to MG9 *Holcus lanatus-Deschampsia cespitosa* grassland.

Conclusion

This area currently supports a species-rich, damp grassland which is a very poor match for any recognised NVC community and should not be ascribed to any particular community on the basis of the analysis undertaken. The survey results do not indicate a good fit with any particular BAP/priority habitat, and whilst the habitat meets some of the criteria for Purple Moor-grass and Rush Pasture Priority Habitat type (type G07 under the HLS FEP) it cannot be categorised as Priority Habitat. It is however, considered to be of ecological value on a local level on account of its botanical diversity. The condition of the habitat is assessed as being poor and declining. However, there is significant scope for enhancement of this area through removal of invasive scrub, principally Bramble and Oak but also Willow *Salix* scrub and, ideally through the reintroduction of regular management, such as an annual mowing or grazing regime. Without such intervention, it is considered likely that the botanical interest will be lost in a relatively short timeframe.

Annex 5719/6:

Downlands, Uckfield (Fir Tree Grove) Bryophyte and Lichen Survey

Annex 5719/7:

Building Descriptions

Building Number: B1 – Chicory Cottage

Photographic Record









External Descriptions

Description	
Number of storeys:	2 Storeys
Building construction type (brick etc.):	Mix of red brick (2/3) & older brick section (1/3)
Roof Structure (flat/pitched/multi-pitched/hipped etc.), material (clay tiles etc.), and presence of ridge tiles:	Clay tiles with wooden soffits. Lead flashing on chimney. There is a section of flat roof in the mid-section, but the remaining roof is an L-shaped hipped roof.
Other notes on roof (chimneys present, skylights present etc.):	Ridge tiles present. 2 chimneys.
General state of repair:	Very good condition – recently re-roofed (2019)
Approximate age of building:	-
Use of building:	Residential

External Features of bat potential — No evidence of bats were found when re-roofing.

Building condition			**Roof condition**					
Cavity Walls?	Condition of brick work?	Condition of any hanging tiles?	Roof tiles (any missing/ slipped/raised?)	Ridge tiles (any missing/ slipped/raised?)	Lead Flashing	Barge Boards/ Soffit Boxes	Other potential access points	Other
X	Very good No gaps	X	Some raised tiles on the older part of the roof on the western side of the central chimney. (see pictures)	None slipped	Yes No gaps	Light entering & gaps in soffit boxes but not big enough for bats		Bright flood light on south side.

Internal Descriptions **B1a**

Number of loft voids present within building: 4 (x2 pitched (B1a and B1d), x1 connecting void as part of the old building roof (B1b) and x1 newly constructed conservatory roof void with no access (B1c) (photos through gap from void B1a) .

Loft Void Features (where relevant)	**Description (where relevant)**
Dimensions	1m x 5m x 4m
Height at apex	1m vaulted
Construction material (wooden rafters, steel rafters etc.) ***and condition (splits, gaps in joins etc.)***	Wooden rafter, vaulted/ cut-roof with boarded section
Construction type (King post, Queen post etc.)	Square strut construction within roof void
Ridge beam ***and condition***	No ridge beam, possibly above square structure not visible
Lining (felt, sarking etc.) ***and condition***	Felt lining ½ of the void in good condition. The other half breathable plastic, (new as of 2019)
Insulation ***and condition***	Fibreglass insulation present, good condition.
Exposed brick work ***and condition***	No exposed brick
Humidity (and confirm presence or absence of water tank)	No water tank with ambient humidity, No draft or breeze
Temperature	18 degrees approx
Any draughts?	No
Light levels	Very dark but switch present for light
Cobwebs?	Fair few cobwebs
In active use?	Fairly active, used to store items with established stairs and lighting in the void
Other features of note	Wasp & hornet nest previously present. Rat poison and rat droppings

Evidence of bats

Bats			**Droppings**				**Feeding remains**		**Staining / scratch marks**	**Other**
Species	Number	Location	Number	Species	Distribution	Age	Number	Distribution		

Overall Bat potential: No evidence of bats

Building Number: B1 (cont.)

Photographic Record







External Descriptions **(See sheet 1)**

Description	
Number of storeys:	
Building construction type (brick etc.):	
Roof Structure (flat/pitched/multi-pitched/hipped etc.), material (clay tiles etc.), and presence of ridge tiles:	
Other notes on roof (chimneys present, skylights present etc.):	
General state of repair:	
Approximate age of building:	-
Use of building:	

External Features of bat potential

Building condition			**Roof condition**					
Cavity Walls?	Condition of brick work?	Condition of any hanging tiles?	Roof tiles (any missing/ slipped/raised?)	Ridge tiles (any missing/ slipped/raised?)	Lead Flashing	Barge Boards/ Soffit Boxes	Other potential access points	Other
								-

Internal Descriptions

Number of loft voids present within building: **B1b** – most suitable section of loft void for bats

Loft Void Features (where relevant)	**Description (where relevant)**
Dimensions	2.5m x 3.5m
Height at apex	0.8m
Construction material (wooden rafters, steel rafters etc.) ***and condition (splits, gaps in joins etc.)***	Gaps within tiles as they back into batons
Construction type (King post, Queen post etc.)	Single pitch, standard apex structure
Ridge beam ***and condition***	Wooden ridge beam, in good condition
Lining (felt, sarking etc.) ***and condition***	No lining, exposed tile showing
Insulation ***and condition***	Fibreglass insulation. Poor condition, broken up.
Exposed brick work ***and condition***	Breeze block opening from void 1a into 1b, brick chimney breast in good condition
Humidity (and confirm presence or absence of water tank)	Cool, no water tank
Temperature	16 degrees approx
Any draughts?	none
Light levels	Slightly lit from natural light
Cobwebs?	Highly cobwebbed
In active use?	Less active, no boarding for easy access. Nothing stored in this area
Other features of note	Chimney breast, brick in good condition. Disused wasp nest present. Far northeast corner of this void there is an opening connecting to void 1d.

Evidence of bats

Bats			**Droppings**				**Feeding remains**		**Staining / scratch marks**	**Other**
Species	Number	Location	Number	Species	Distribution	Age	Number	Distribution		

Overall Bat potential: No evidence of bats

Building Number: B1 (cont.)

Photographic Record





External Descriptions **(See sheet 1)**

Description	
Number of storeys:	
Building construction type (brick etc.):	
Roof Structure (flat/pitched/multi-pitched/hipped etc.), material (clay tiles etc.), and presence of ridge tiles:	
Other notes on roof (chimneys present, skylights present etc.):	
General state of repair:	
Approximate age of building:	-
Use of building:	

External Features of bat potential

Building condition			**Roof condition**					
Cavity Walls?	Condition of brick work?	Condition of any hanging tiles?	Roof tiles (any missing/ slipped/raised?)	Ridge tiles (any missing/ slipped/raised?)	Lead Flashing	Barge Boards/ Soffit Boxes	Other potential access points	Other
								-

Internal Descriptions

Number of loft voids present within building: **B1c** – no access & no storage use

Loft Void Features (where relevant)	**Description (where relevant)**
Dimensions	4m x 3m
Height at apex	0.5-1m
Construction material (wooden rafters, steel rafters etc.) ***and condition (splits, gaps in joins etc.)***	Wooden rafter, vaulted, cut roof
Construction type (King post, Queen post etc.)	Square strut construction within roof void
Ridge beam ***and condition***	No ridge beam visible
Lining (felt, sarking etc.) ***and condition***	Hard to tell with limited visibility, most likely breathable plastic like B1a lining replaced in 2019 with new extension.
Insulation ***and condition***	Fibreglass insulation
Exposed brick work ***and condition***	No exposed brick
Humidity (and confirm presence or absence of water tank)	No water tank, ambient
Temperature	18 degrees approx.
Any draughts?	None
Light levels	Very dark
Cobwebs?	Hard to tell with no access
In active use?	No
Other features of note	Newly constructed in 2019

Evidence of bats

Bats			**Droppings**				**Feeding remains**		**Staining / scratch marks**	**Other**
Species	Number	Location	Number	Species	Distribution	Age	Number	Distribution		

Overall Bat potential: No evidence of bats

Building Number: B1 (Cont.)

Photographic Record






External Descriptions **(See sheet 1)**

Description	
Number of storeys:	
Building construction type (brick etc.):	
Roof Structure (flat/pitched/multi-pitched/hipped etc.), material (clay tiles etc.), and presence of ridge tiles:	
Other notes on roof (chimneys present, skylights present etc.):	
General state of repair:	
Approximate age of building:	-
Use of building:	

External Features of bat potential

Building condition			**Roof condition**					
Cavity Walls?	Condition of brick work?	Condition of any hanging tiles?	Roof tiles (any missing/ slipped/raised?)	Ridge tiles (any missing/ slipped/raised?)	Lead Flashing	Barge Boards/ Soffit Boxes	Other potential access points	Other
								-

Internal Descriptions

Number of loft voids present within building: B1d

Loft Void Features (where relevant)	**Description (where relevant)**
Dimensions	5m x 10m
Height at apex	1.5m but concealed by vaulted structure
Construction material (wooden rafters, steel rafters etc.) ***and condition (splits, gaps in joins etc.)***	Wooden rafter and purlins with a wooden vaulted section through the centre. There was also a secondary apex in the southern section running parallel to the primary apex. Looks to be part of the old structure and connects to the older part of the building void (B1b). Connection from B1d to B1b (picture 4 above)
Construction type (King post, Queen post etc.)	Square strut structure within the void
Ridge beam ***and condition***	Concealed
Lining (felt, sarking etc.) ***and condition***	New membrane lining
Insulation ***and condition***	Silver slab Styrofoam scattered in this section. Some fiberglass in poor condition
Exposed brick work ***and condition***	No exposed brick
Humidity (and confirm presence or absence of water tank)	Ambient with no water tank
Temperature	18 degrees approx.
Any draughts?	None
Light levels	Fairly light by soffits and light switch present on a timer
Cobwebs?	Light dusting of cobwebs
In active use?	Fairly active for storage with boarding in the centre section
Other features of note	Lots of cabling, roof redone in 2019. Rat droppings present. Some slits in the soffit boards letting light in but not large enough gaps for bats.

Evidence of bats

Bats			**Droppings**				**Feeding remains**		**Staining / scratch marks**	**Other**
Species	Number	Location	Number	Species	Distribution	Age	Number	Distribution		

Overall Bat potential: No evidence of bats

Building over all = low bat potential

Building Number: B2

Photographic Record






External Descriptions

Description	
Number of storeys:	1 storey
Building construction type (brick etc.):	Wooden shed constructed of wooden panels
Roof Structure (flat/pitched/multi-pitched/hipped etc.), material (clay tiles etc.), and presence of ridge tiles:	Flat, felted slanted roof
Other notes on roof (chimneys present, skylights present etc.):	
General state of repair:	Good with no gaps or damage to the wood. No decay
Approximate age of building:	3 years
Use of building:	Storage of garden tools

External Features of bat potential

Building condition			**Roof condition**					
Cavity Walls?	Condition of brick work?	Condition of any hanging tiles?	Roof tiles (any missing/ slipped/raised?)	Ridge tiles (any missing/ slipped/raised?)	Lead Flashing	Barge Boards/ Soffit Boxes	Other potential access points	Other
							Well-sealed with some cobwebs present on the outside.	

Internal Descriptions

Number of loft voids present within building: N/A did not have access inside the shed

Loft Void Features (where relevant)	**Description (where relevant)**
Dimensions	
Height at apex	
Construction material (wooden rafters, steel rafters etc.) ***and condition (splits, gaps in joins etc.)***	
Construction type (King post, Queen post etc.)	
Ridge beam ***and condition***	
Lining (felt, sarking etc.) ***and condition***	
Insulation ***and condition***	
Exposed brick work ***and condition***	
Humidity (and confirm presence or absence of water tank)	
Temperature	
Any draughts?	
Light levels	
Cobwebs?	
In active use?	
Other features of note	

Evidence of bats

Bats			**Droppings**				**Feeding remains**		**Staining / scratch marks**	**Other**
Species	Number	Location	Number	Species	Distribution	Age	Number	Distribution		

Overall Bat potential: Negligible

Building Number: B3

Photographic Record






External Descriptions

Description	
Number of storeys:	1 storey
Building construction type (brick etc.):	Wooden panelling with plastic windows very well lit
Roof Structure (flat/pitched/multi-pitched/hipped etc.), material (clay tiles etc.), and presence of ridge tiles:	Single pitch with felt lining with moss coverage.
Other notes on roof (chimneys present, skylights present etc.):	None present
General state of repair:	very good condition
Approximate age of building:	-
Use of building:	shed further gardening storage

External Features of bat potential

Building condition			**Roof condition**					
Cavity Walls?	Condition of brick work?	Condition of any hanging tiles?	Roof tiles (any missing/ slipped/raised?)	Ridge tiles (any missing/ slipped/raised?)	Lead Flashing	Barge Boards/ Soffit Boxes	Other potential access points	Other
						wood (thin) good condition		-

Internal Descriptions

Number of loft voids present within building: 11

Loft Void Features (where relevant)	**Description (where relevant)**
Dimensions	2m (h) x 2.5m (w) x 3m (l)
Height at apex	2m
Construction material (wooden rafters, steel rafters etc.) ***and condition (splits, gaps in joins etc.)***	wooden panelling and rafters
Construction type (King post, Queen post etc.)	standard pitch structure
Ridge beam ***and condition***	wooden in good condition
Lining (felt, sarking etc.) ***and condition***	
Insulation ***and condition***	None
Exposed brick work ***and condition***	None
Humidity (and confirm presence or absence of water tank)	Frequently used
Temperature	20 degrees approx
Any draughts?	yes
Light levels	Very well lit
Cobwebs?	Outside and some inside on windows and shelves
In active use?	Yes, frequently for gardening
Other features of note	

Evidence of bats

Bats			**Droppings**				**Feeding remains**		**Staining / scratch marks**	**Other**
Species	Number	Location	Number	Species	Distribution	Age	Number	Distribution		

Overall Bat potential: No evidence of bats

Building Number: B4

Photographic Record






External Descriptions

Description	
Number of storeys:	1 storey
Building construction type (brick etc.):	thick wooden panels with timber internal structure.
Roof Structure (flat/pitched/multi-pitched/hipped etc.), material (clay tiles etc.), and presence of ridge tiles:	single pitched roof with open rafters (No soffits) exposed felt lining in good condition). Ridge tiles in good condition and other clay tiles (however heavily moss covered)
Other notes on roof (chimneys present, skylights present etc.):	heavily moss covered
General state of repair:	fairly good state of repair
Approximate age of building:	-
Use of building:	storage for house appliances

External Features of bat potential

Building condition			**Roof condition**					
Cavity Walls?	Condition of brick work?	Condition of any hanging tiles?	Roof tiles (any missing/ slipped/raised?)	Ridge tiles (any missing/ slipped/raised?)	Lead Flashing	Barge Boards/ Soffit Boxes	Other potential access points	Other
								-

Internal Descriptions

Number of loft voids present within building: 1

Loft Void Features (where relevant)	**Description (where relevant)**
Dimensions	4m (h) x 3m (w) x 4.5m (l)
Height at apex	4m
Construction material (wooden rafters, steel rafters etc.) ***and condition (splits, gaps in joins etc.)***	2 wooden rafters which appears to be thick timber frame.
Construction type (King post, Queen post etc.)	half of the shed has a mezzanine level for further storage held up by timber rafter.
Ridge beam ***and condition***	Ridge beam in good condition
Lining (felt, sarking etc.) ***and condition***	felt lining
Insulation ***and condition***	no insulation
Exposed brick work ***and condition***	
Humidity (and confirm presence or absence of water tank)	Cool, no water tank
Temperature	16 degrees approx
Any draughts?	Yes
Light levels	fairly high due to openings in the door frame
Cobwebs?	very minimal
In active use?	very regularly used
Other features of note	Rat droppings

Evidence of bats

Bats			**Droppings**				**Feeding remains**		**Staining / scratch marks**	**Other**
Species	Number	Location	Number	Species	Distribution	Age	Number	Distribution		

Overall Bat potential: No evidence of bats

Building Number: B5

Photographic Record







External Descriptions

Description	
Number of storeys:	single storey
Building construction type (brick etc.):	wooden shed panelled
Roof Structure (flat/pitched/multi-pitched/hipped etc.), material (clay tiles etc.), and presence of ridge tiles:	single pitched felt lined roof
Other notes on roof (chimneys present, skylights present etc.):	flood lighting present on front and small shelter structure directly east which is 0.5m height
General state of repair:	In good condition
Approximate age of building:	
Use of building:	Regularly used for storage, pool pump

External Features of bat potential

Building condition			**Roof condition**					
Cavity Walls?	Condition of brick work?	Condition of any hanging tiles?	Roof tiles (any missing/ slipped/raised?)	Ridge tiles (any missing/ slipped/raised?)	Lead Flashing	Barge Boards/ Soffit Boxes	Other potential access points	Other
								-

Internal Descriptions

Number of loft voids present within building: 1

Loft Void Features (where relevant)	**Description (where relevant)**
Dimensions	1.5m height x 2m w x 2m long
Height at apex	1.5m
Construction material (wooden rafters, steel rafters etc.) ***and condition (splits, gaps in joins etc.)***	Wooden rafters and purlin (very thin) lined on top with roof felt liner - all in good condition
Construction type (King post, Queen post etc.)	simple single pitch
Ridge beam ***and condition***	none
Lining (felt, sarking etc.) ***and condition***	felt lining on roof
Insulation ***and condition***	none
Exposed brick work ***and condition***	none
Humidity (and confirm presence or absence of water tank)	hot due to pump
Temperature	Hot
Any draughts?	yes
Light levels	high levels due to windows on front
Cobwebs?	none
In active use?	Yes, for storage, pool pump
Other features of note	

Evidence of bats

Bats			**Droppings**				**Feeding remains**		**Staining / scratch marks**	**Other**
Species	Number	Location	Number	Species	Distribution	Age	Number	Distribution		

Overall Bat potential: No evidence of bats

Building Number: B6

Photographic Record





External Descriptions

Description	
Number of storeys:	single storey glass
Building construction type (brick etc.):	green house - no Bat Potential see pictures
Roof Structure (flat/pitched/multi-pitched/hipped etc.), material (clay tiles etc.), and presence of ridge tiles:	
Other notes on roof (chimneys present, skylights present etc.):	
General state of repair:	
Approximate age of building:	-
Use of building:	Green house

External Features of bat potential

Building condition			**Roof condition**					
Cavity Walls?	Condition of brick work?	Condition of any hanging tiles?	Roof tiles (any missing/ slipped/raised?)	Ridge tiles (any missing/ slipped/raised?)	Lead Flashing	Barge Boards/ Soffit Boxes	Other potential access points	Other
								Green house - no Bat Potential see pictures

Internal Descriptions

Number of loft voids present within building: N/A

Loft Void Features (where relevant)	**Description (where relevant)**
Dimensions	
Height at apex	
Construction material (wooden rafters, steel rafters etc.) ***and condition (splits, gaps in joins etc.)***	
Construction type (King post, Queen post etc.)	
Ridge beam ***and condition***	
Lining (felt, sarking etc.) ***and condition***	
Insulation ***and condition***	
Exposed brick work ***and condition***	
Humidity (and confirm presence or absence of water tank)	
Temperature	
Any draughts?	
Light levels	
Cobwebs?	
In active use?	
Other features of note	

Evidence of bats

Bats			**Droppings**				**Feeding remains**		**Staining / scratch marks**	**Other**
Species	Number	Location	Number	Species	Distribution	Age	Number	Distribution		

Overall Bat potential: Negligible

Annex 5719/7:

Automated Bird Survey – Detailed Results

Downlands Farm, Uckfield

Breeding Bird Survey

Ecology Surveys

August 2020

Contents

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1 Introduction and Methodology

1.1 Ecology Surveys was commissioned by Aspect Ecology Ltd. in April 2020 to undertake a breeding bird survey of a sizeable area of woodland and grassland located to the northwest of the town of Uckfield in East Sussex.

1.2 The site comprises an extensive area of often high-quality deciduous woodland, together with sizeable areas of semi-improved grassland. The area has a distinctly rural feel, despite a road and housing adjacent to the southeast boundary (which means the area is heavily used for walking). The A22 runs through the west side of the site, with a strip of ancient woodland and stream corridor forming the western boundary.

1.3 Three morning surveys were carried out between April and June 2020 in order to assess breeding bird activity within the site. The weather conditions during the surveys are given in table 1.

Date (2020)	Weather summary
26th April	0-1/8 cloud, wind E0-1, 10◦C.
23rd May	2-6/8 cloud, wind SW2, 12◦C.
20th June	6/8 cloud, wind SW0-1, 11◦C.

Table 1: Weather conditions during the breeding bird surveys.

1.4 On each survey an experienced ornithologist walked a circuitous and meandering route around the site, recording the locations, numbers and activity of all bird species present in (and around) the area during this time. This methodology ensures that the vast majority of species that use the site would be recorded over the course of the three visits, although some species that may use the site as part of a larger territory may be missed, particularly nocturnal species such as owls.

1.5 To ascertain the breeding status of birds using the site, the following criteria were applied following the methodology used in the 'Atlas' surveys of 1988-1991 (Gibbons et al, 1993). This accepts the following activities as denoting breeding (including those probably breeding although definite proof was lacking):

- Bird apparently holding territory.
- Courtship and display.
- Nest-building (including excavating nest-hole).
- Distraction display or feigning injury.
- Adult carrying faecal sac or food.
- Adult entering or leaving apparently occupied nest site.
- Nest with eggs or eggshells found, or bird sitting but not disturbed.
- Nest with young; or downy young of ducks, game-birds, waders and other nidifugous species.
- Recently fledged young.

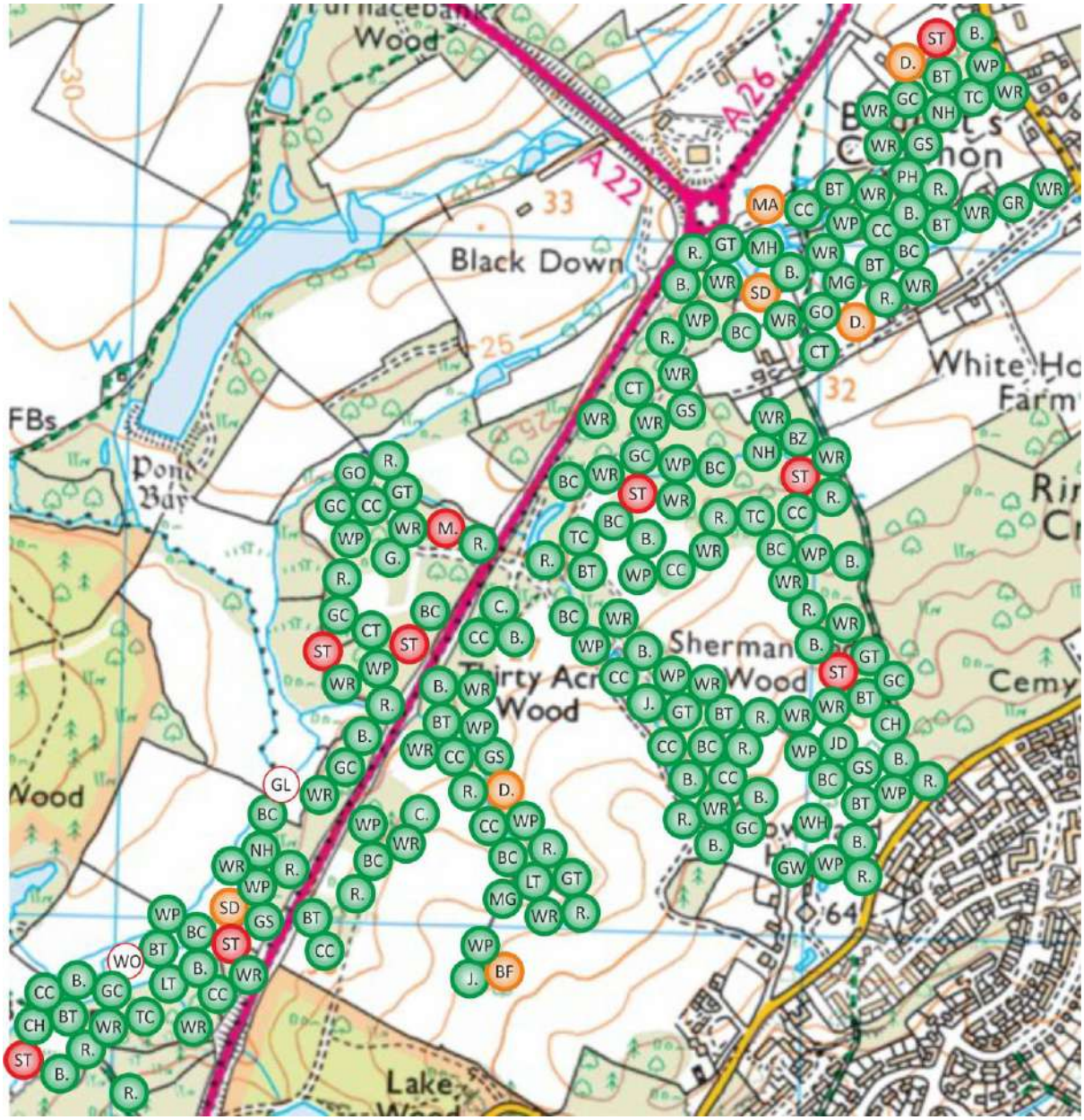
2 Results

2.1 A total of 39 species of birds was recorded during the surveys, of which 33 are breeding or probably breeding and two possibly breeding (i.e. habitat suitable to support the species is present). The remaining four species were either recorded in adjacent areas or flying over the site, or were represented by migrant individuals.

2.2 A summary of observations for each species is included in table 2, whilst the distribution of breeding birds is shown in plan 1.

Species (and BTO species code)	RSPB listed	Est. no. pairs	Notes
Pheasant (PH) *Phasianus colchicus*	Feral	1	
Greylag goose (GJ) *Anser anser*	Feral	0	Three flew over in May.
Mallard (MA) *Anas platyrhynchos*	Amber	1	On a pond in the north.
Stock dove (SD) *Columba oenas*	Amber	2	
Woodpigeon (WP) *Columba palumbus*		19	
Collared dove (CD) *Streptopelia decaocto*		0	Noted on adjacent housing.
Moorhen (MH) *Gallinula chloropus*		1	On a pond in the north.
Herring gull (HG) *Larus argentatus*	Red	0	One flew over in June.
Buzzard (BZ) *Buteo buteo*		1	
Great spotted woodpecker (GS) *Dendrocopos major*		5	
Green woodpecker (G.) *Picus viridis*		1	
Jay (J.) *Garrulus glandarius*		2	
Magpie (MG) *Pica pica*		2	
Jackdaw (JD) *Corvus monedula*		1	
Carrion crow (C.) *Corvus corone*		2	
Coal tit (CT) *Periparus ater*		3	
Blue tit (BT) *Cyanistes caeruleus*		12	
Great tit (GT) *Parus major*		5	
Long-tailed tit (LT) *Aegithalos caudatus*		2	
Chiffchaff (CC) *Phylloscopus collybita*		13	
Willow warbler (WW) *P. trochilus*	Amber	0	A migrant present in April.
Wood warbler (WO) *P. sibilatrix*	Red	0-1	One singing along the western stream corridor in April.
Blackcap (BC) *Sylvia atricapilla*		14	
Garden warbler (GW) *Sylvia borin*		1	On the eastern boundary.
Whitethroat (WH) *Sylvia communis*		1	In scrub in the east.
Goldcrest (GC) *Regulus regulus*		8	
Wren (WR) *Troglodytes troglodytes*		38	Abundant throughout.
Nuthatch (NH) *Sitta europaea*		3	
Treecreeper (TC) *Certhia familiaris*		4	
Blackbird (B.) *Turdus merula*		19	
Song thrush (ST) *Turdus philomelos*	Red	8	
Mistle thrush (M.) *Turdus viscivorus*	Red	1	West of the A22.
Robin (R.) *Erithacus rubecula*		24	
Dunnock (D.) *Prunella modularis*	Amber	3	
Grey wagtail (GL) *Motacilla cinerea*	Red	0-1	On the stream on the west boundary.
Chaffinch (CH) *Fringilla coelebs*		2	
Bullfinch (BF) *Pyrrhula pyrrhula*	Amber	1	
Greenfinch (GR) *Chloris chloris*		1	
Goldfinch (GO) *Carduelis carduelis*		2	

Table 2: Systematic list of bird species recorded during the breeding bird surveys at Downlands Farm, Uckfield.



Plan 1: Distribution of breeding birds at Downlands Farm, Uckfield.
Red, Amber and Green List species are shown in their respective colour. Infilled circles indicate species breeding or probably breeding, unfilled circles those possibly breeding. Species locations do not necessarily show nest sites, but show the location of each species within its presumed territory. For the key to species, see the systematic list above.

3 Summary and Conclusions

3.1 Being dominated by mature deciduous woodland, the site supports a large population of breeding birds that is generally typical of the habitat, without being especially diverse, and resulting in a very high percentage of species that are definitely or probably breeding. In contrast, the open grassland areas were devoid of birdlife, save for the odd foraging carrion crow.

3.2 The most notable species recorded was a singing wood warbler along the western stream corridor in April, with grey wagtail also possibly breeding here – both species are included on the RSPB Red List having undergone major declines in their UK populations. Whilst the wood warbler was most likely a passing migrant, it nevertheless illustrates the quality of woodland habitat west of the A22.

3.3 Other Red or Amber List species breeding in woodland or scrub at the site include stock dove, song thrush, mistle thrush, dunnock and bullfinch, with mallard on a woodland pond. All these species remain common and widespread in both a local and national context, as are all the other species recorded breeding at the site.

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