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CAP 42

Banstead Heath

Site Management Plan -

Appendices

SWT Ecology Services was commissioned by the Banstead Commons Conservators to prepare ten-year management plans for Banstead Commons. This project was kindly sponsored by the Reigate and Banstead Community Infrastructure Levy Fund.

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Appendix 1: Site background

Climate

The climate is typical of central southern England, moist and temperate with mild winters. Prevailing winds are from the south-west, and in most years rainfall ranges between 550 millimetres and 650 millimetres. Normal average temperatures are 17°C in July and 5°C in January. Sunshine levels are amongst the highest in Britain, while the number of snow days is comparatively low.

It should be noted that recent analyses of climate trends by the Met Office indicated the following changes in climate in south-east England (Jenkins, 2009):

- Warming of the global climate system is unequivocal, with global average temperatures having risen by nearly 0.8 °C since the late 19th century and rising at about 0.2 °C/decade over the past 25 years.
- Annual mean precipitation over England and Wales has not changed significantly since records began in 1766. Seasonal rainfall is highly variable but appears to have decreased in summer and increased in winter, although with little change in the latter over the last 50 years. All regions of the UK have experienced an increase over the past 45 years in the contribution to winter rainfall from heavy precipitation events; in summer all regions except NE England and N Scotland show decreases.
- Sea-surface temperatures around the UK coast have risen over the past three decades by about 0.7 °C.
- Sea level around the UK rose by about 1mm/yr in the 20th century, corrected for land movement. The rate for the 1990s and 2000s has been higher than this.

Topography

Banstead Heath has a gently sloping topography with a maximum altitude of 207m at the southern end of the site south of the M25 motorway.

Hydrology

Nine ponds were recorded within the survey area (see 9.1 - 9.9 on Figure 1 of site management plan) and described in Table 5 within the site management plan.

History / Archaeology

The heath contains a number of archaeological sites and known landscape features of historic significance. These sites are in fact clues to the fact that in times past, the site was very much a 'working Heath', contrasting vividly to its use today primarily for informal recreation and enjoyment of landscape and wildlife. Many traces of this past use are still visible today, some features designated as Scheduled Ancient Monuments, Areas of High Archaeological Potential and Listed Buildings (Coal Tax Posts - Coal-tax posts are boundary marker posts found in southern England. They were erected in the 1860s and form an irregular loop between 12 and 18 miles from London to mark the points where taxes on coal were due to the Corporation of London) (Banstead Heath Management Plan Working Group, 2005).

Banstead Commons Conservators

Banstead Commons Conservators was set up as a result of the Metropolitan Commons (Banstead) Supplemental Act of 1893 and related to four areas of common land; Banstead Heath, Banstead Downs, Park Downs and Burgh Heath. The Act conferred a statutory duty upon the Conservators to ensure safe and free public access to the four commons and to

Banstead Commons Conservators

protect them from damage and trespass. Further details of the Banstead Commons Conservators and their activities can be found at; www.bansteadcommons.org.uk

Appendix 2: Methodology

Desk study

The desk study included a search of information already available for the site including past management plans, agri-environment scheme agreements, statutory and non-statutory site information, past surveys and monitoring for the site.

In addition a data search undertaken by the Surrey Biological Information Centre (Surrey Biodiversity Information Centre, 2023) on behalf of SWT Ecology Services, which was received on 09 January 2023. The desk study included a search of records of protected species and those of conservation concern within 1km of the survey area, and of statutory and non-statutory designated sites within 1km of the survey area.

An assessment of the likelihood of species being present within the survey area was made by comparing their habitat requirements with habitats recorded in the survey area. Species that were unlikely to occur were scoped out of the assessment.

Waterbodies within 250m of the survey area boundary were identified using aerial photography and publicly available mapping.

Publicly available information on (DEFRA, n.d.) was also consulted.

Habitat survey

Habitats in the survey area were mapped using the UK habitat classification survey methodology (UK habitat Ltd, 2023).

UK habitat classification survey is a comprehensive system for classifying and mapping habitats within the UK. The aim of the survey is to identify and map habitats using aerial imagery and ground-truthing the information in a consistent and unified way such that this can be used for ecological impact assessment and habitat metrics. The whole survey area was walked by an experienced ecologist and habitats identified, classified and mapped. Each habitat is coded in line with the survey methodology, using secondary codes to define specific features, such as management measures, land use and other specific features. Where these secondary codes are used in the report, the definitions are also provided.

Within each habitat type a record of the vascular plant species was made and an assessment of their abundance recorded. Abundances of each vascular plant species within each habitat type are based on the DAFOR scale, presented below.

D – Dominant

A – Abundant

F – Frequent

O – Occasional

R – Rare

Nomenclature of vascular plants followed (Stace, 2019). Common names are presented in the text, with scientific names detailed in Appendix 3.

Fauna species mentioned in this report will be referred to by their common name. Scientific names for these species are detailed in Appendix 4.

The survey included an assessment of the habitats present to determine their suitability for protected species and species of conservation concern. A record was made of any signs of

protected species, or species of conservation concern, such as runs, droppings and/or foraging remains.

A record was also made of any fauna that was incidentally recorded.

The presence, location and distribution of any non-native invasive species was noted.

Notable observations were recorded during the survey as target notes.

The survey was undertaken by Jamel Guenioui BSc (Hons) ACIEEM – Senior Ecologist in suitable weather conditions.

BNG condition assessment

BNG assessment requires information on the condition of the habitat. This was undertaken between 05 June and 20 June 2023 by Jamel Guenioui BSc (Hons) ACIEEM – Senior Ecologist, who has the relevant skills and knowledge to assess condition for the habitats encountered. The report review process includes an assessment by a more senior ecologist to ensure that the condition assessment has been undertaken in line with best practice.

The condition assessment was undertaken in line with the methods set out in the biodiversity net gain version 4.0 user guide (Natural England, 2023) and technical annex (Natural England, 2023). Habitat condition assessment forms are presented in Appendix 5. Each habitat compartment is assigned a condition in line with guidance, and are assigned as good, fairly good, moderate, fairly poor and poor. For some habitats, the condition has been pre-determined, such as Rhododendron and Bramble scrub.

For ease of reference, habitat compartments in Figure 1 have been numbered as per below.

- Lowland dry acid grassland = 1.1 – 1.2
- Bracken = 2.1
- Other lowland acid grassland = 3.1 – 3.9
- Other neutral grassland = 4.1
- Modified grassland = 5.1
- Lowland mixed deciduous woodland = 6.1 – 6.18
- Lowland heathland = 7.1 – 7.4
- Hawthorn scrub = 8.1 – 8.2
- Standing open water (ponds) = 9.1 – 9.9
- Line of trees = 10.1 – 10.4

Note that this BNG condition assessment is separate and different from the condition assessment undertaken by Natural England as part of the assessment of condition of SSSIs. The NE assessment uses different, more detailed criteria although there is some overlap.

Biodiversity net gain assessment

Biodiversity net gain is calculated and interpreted following eight principles and rules, as defined in the Biodiversity Net Gain Version 4.0 User Guide (Natural England, 2023). This is further supported by (CIEEM, CIRIA, IEMA, 2019) and (BSI, 2021) that detail, among other things, how to implement biodiversity net gain good practice principles within each stage of a development project's life cycle.

Baseline biodiversity units

Calculating baseline biodiversity units requires information on a habitat's area, distinctiveness, condition, and strategic significance. The habitat areas and habitat condition are based on the habitat survey methods detailed above.

Distinctiveness refers to the relative scarcity of the habitat and its importance for nature conservation. The distinctiveness categories are pre-determined by the metric.

Strategic significance is assessed against information in the local plan or policies for that habitat and its location. This is considered separately for each habitat type.

The data were inputted into the biodiversity net gain metric (Natural England, 2021), accessed on 18 September 2023. The completed metric accompanies this report.

Biodiversity gains available

The available gains were calculated by assuming that all habitats will be managed to reach a target habitat condition of good. This information was input into the biodiversity net gain metric to determine the number of available biodiversity units.

Limitations

Ecological surveys

Habitat surveys can be undertaken at any time of year, with the optimal season being between March and September, when most plant species are visible. Where feasible, all efforts were made to schedule the habitat survey in optimal weather conditions and time of year. Nevertheless, field surveys usually fail to record all species present for various reasons, including the seasonal absence of some species, and short survey duration. Rare or cryptic species are often missed in short surveys.

Habitat condition assessments should be undertaken at the optimal time of year for the habitat. The habitat condition assessment was undertaken in June which is considered to be optimal.

Based on the above, a full appraisal of the plant species and habitats present could be undertaken at the time of the survey and the survey was conducted within the optimal timeframe.

As the primary purpose of the investigation was to assess the habitats present and their suitability to support protected species and species of conservation concern, the desk study, combined with the field survey, were sufficient to complete this aspect of the assessment.

Biodiversity net gain assessment

BNG uses habitats as a proxy for biodiversity and is a simplification of the real world. Ecological function must also be considered to manage this limitation and this is detailed throughout relevant sections of the report and the avoid, minimise, restore and compensate principles must be applied throughout all stages of the development for habitats and species alike.

The BNG values presented would only be achievable following the implementation of this Habitat Management Plan, which must cover a time period specific to the time to target condition stated by the metric (up to 30 years).

Appendix 3: Vascular plant species recorded between 05/06/2023 and 20/06/2023

Scientific name	Common name	Habitat/s	Abundance in habitat type
<i>Acer campestre</i>	Field Maple	Lowland mixed deciduous woodland	O
<i>Acer platanoides</i>	Norway Maple	Lowland mixed deciduous woodland	R
<i>Acer pseudoplatanus</i>	Sycamore	Lowland mixed deciduous woodland	O
<i>Achillea millefolium</i>	Yarrow	Modified grassland	LF
<i>Aegopodium podagraria</i>	Ground-elder	Lowland mixed deciduous woodland	O
<i>Aesculus hippocastanum</i>	Horse-chestnut	Lowland mixed deciduous woodland	R
<i>Agrimonia eupatoria</i>	Agrimony	Other neutral grassland	O
<i>Agrostis capillaris</i>	Common Bent	Other lowland acid grassland	LF
<i>Agrostis sp.</i>	a Bent-grass	Other lowland acid grassland	O
<i>Agrostis stolonifera</i>	Creeping Bent	Lowland mixed deciduous woodland	LF
<i>Alliaria petiolata</i>	Garlic Mustard	Lowland mixed deciduous woodland	O
<i>Alopecurus pratensis</i>	Meadow Foxtail	Lowland mixed deciduous woodland	O
<i>Anemone nemorosa</i>	Wood Anemone	Lowland mixed deciduous woodland	O
<i>Anthoxanthum odoratum</i>	Sweet Vernal-grass	Other lowland acid grassland Lowland heathland Lowland dry acid grassland	O F F
<i>Anthriscus sylvestris</i>	Cow Parsley	Lowland mixed deciduous woodland	LF
<i>Arrhenatherum elatius</i>	False Oat-grass	Lowland mixed deciduous woodland Other neutral grassland	LF LF
<i>Bambusoideae sp.</i>	a Bamboo sp.	Lowland mixed deciduous woodland	R
<i>Bellis perennis</i>	Daisy	Modified grassland	O
<i>Betula pendula</i>	Silver Birch	Lowland mixed deciduous woodland Other neutral grassland Other lowland acid grassland Line of trees	LF O O LF
<i>Betula pubescens</i>	Downy Birch	Lowland mixed deciduous woodland	O
<i>Brachytheciaceae sp.</i>	a feather Moss	Lowland heathland	LF
<i>Bromus sp.</i>	A brome grass	Ponds	O
<i>Calluna vulgaris</i>	Heather	Lowland heathland Hawthorn scrub Other lowland acid grassland Lowland mixed deciduous woodland Lowland dry acid grassland	LA LF O O O
<i>Carex pendula</i>	Pendulous Sedge	Ponds	O
<i>Carex pilulifera</i>	Pill Sedge	Other lowland acid grassland	O
<i>Carex remota</i>	Remote Sedge	Lowland mixed deciduous woodland Ponds	O LF
<i>Castanea sativa</i>	Sweet Chestnut	Lowland mixed deciduous woodland Line of trees	O O
<i>Centaurea nigra</i>	Common Knapweed	Other lowland acid grassland Other neutral grassland Lowland dry acid grassland	F O F

Scientific name	Common name	Habitat/s	Abundance in habitat type
		Lowland heathland	O
<i>Chamaenerion angustifolium</i>	Rosebay Willowherb	Lowland mixed deciduous woodland	O
<i>Circaea lutetiana</i>	Enchanter's-nightshade	Lowland mixed deciduous woodland	LF
<i>Cirsium arvense</i>	Creeping Thistle	Other neutral grassland	O
<i>Cornus sanguinea</i>	Dogwood	Lowland mixed deciduous woodland	O
<i>Corylus avellana</i>	Hazel	Lowland mixed deciduous woodland	LF
<i>Crataegus monogyna</i>	Hawthorn	Lowland mixed deciduous woodland Lowland heathland Hawthorn scrub Other neutral grassland Lowland dry acid grassland Line of trees Ponds	O F A O F F O
<i>Cynosurus cristatus</i>	Crested Dog's-tail	Lowland dry acid grassland	F
<i>Cytisus scoparius</i>	Broom	Lowland heathland	O
<i>Dactylis glomerata</i>	Cock's-foot	Other neutral grassland Lowland dry acid grassland Other lowland acid grassland Modified grassland	LF F LF O
<i>Deschampsia flexuosa</i>	Wavy Hair-grass	Other lowland acid grassland Lowland heathland	O LF
<i>Digitalis purpurea</i>	Foxglove	Lowland mixed deciduous woodland Other lowland acid grassland	O O
<i>Dryopteris dilatata</i>	Broad Buckler-fern	Lowland mixed deciduous woodland	O
<i>Dryopteris filix-mas</i>	Male Fern	Lowland mixed deciduous woodland	O
<i>Elytrigia repens</i>	Common Couch	Other lowland acid grassland	R
<i>Epilobium montanum</i>	Broad-leaved Willowherb	Lowland mixed deciduous woodland	O
<i>Erica cinerea</i>	Bell heather	Lowland heathland	LF
<i>Erica tetralix</i>	Cross-leaved Heath	Lowland heathland	O
<i>Ervilia hirsuta</i>	Hairy Tare	Other neutral grassland	O
<i>Fagus sylvatica</i>	Beech	Lowland mixed deciduous woodland	O
<i>Festuca filiformis</i>	Fine-leaved Sheep's Fescue	Other lowland acid grassland Lowland heathland	O O
<i>Festuca rubra</i> agg.	Red Fescue	Other lowland acid grassland Other neutral grassland Lowland dry acid grassland	LF F F
<i>Fragaria vesca</i>	Wild Strawberry	Lowland mixed deciduous woodland	O
<i>Fraxinus excelsior</i>	Ash	Lowland mixed deciduous woodland	LF
<i>Galium aparine</i>	Cleavers	Lowland mixed deciduous woodland	O
<i>Galium saxatile</i>	Heath Bedstraw	Lowland dry acid grassland Lowland heathland	LF LF

Scientific name	Common name	Habitat/s	Abundance in habitat type
		Other lowland acid grassland	LF
<i>Geranium dissectum</i>	Cut-leaved Crane's-bill	Other lowland acid grassland	O
<i>Geranium robertianum</i>	Herb-Robert	Lowland mixed deciduous woodland	O
<i>Geum urbanum</i>	Wood Avens	Lowland mixed deciduous woodland	LF
<i>Glechoma hederacea</i>	Ground-ivy	Lowland mixed deciduous woodland	LF
<i>Hedera helix</i>	Ivy	Lowland mixed deciduous woodland	LF
<i>Heracleum sphondylium</i>	Hogweed	Other neutral grassland	LF
<i>Holcus lanatus</i>	Yorkshire-fog	Lowland mixed deciduous woodland Other lowland acid grassland Other neutral grassland Lowland heathland Modified grassland	LF LF LF F LF
<i>Hordeum murinum</i>	Wall Barley	Lowland mixed deciduous woodland	R
<i>Hyacinthoides non-scripta</i>	Bluebell	Lowland mixed deciduous woodland Other lowland acid grassland	LF O
<i>Hypericum pulchrum</i>	Slender St. John's-wort	Other lowland acid grassland Lowland heathland	O O
<i>Hypericum tetrapterum</i>	Square-stalked St. John's-wort	Other lowland acid grassland	O
<i>Hypochaeris radicata</i>	Cat's-ear	Other lowland acid grassland	O
<i>Ilex aquifolium</i>	Holly	Lowland mixed deciduous woodland	LF
<i>Iris pseudacorus</i>	Yellow Iris	Ponds	O
<i>Iris sp.</i>	An introduced iris	Ponds	R
<i>Jacobaea vulgaris</i>	Common Ragwort	Lowland mixed deciduous woodland Modified grassland	O O
<i>Juncus effusus</i>	Soft-rush	Lowland mixed deciduous woodland	LF
<i>Lamiastrum galeobdolon</i> spp. <i>argentatum</i>	Variegated Yellow Archangel	Lowland mixed deciduous woodland	LF
<i>Lapsana communis</i>	Nipplewort	Lowland mixed deciduous woodland	O
<i>Larix decidua</i>	European Larch	Lowland mixed deciduous woodland	R
<i>Lathyrus nissolia</i>	Grass Vetchling	Other neutral grassland	O
<i>Lemna sp.</i>	a duckweed	Ponds	LF
<i>Leontodon hispidus</i>	Rough Hawkbit	Other lowland acid grassland	O
<i>Leontodon sp.</i>	a hawkbit	Other lowland acid grassland	O
<i>Leucanthemum vulgare</i>	Oxeye Daisy	Other lowland acid grassland	O
<i>Leycesteria sp.</i>	a Pheasant Berry sp.	Lowland mixed deciduous woodland	R
<i>Lolium perenne</i>	Perennial Ryegrass	Lowland mixed deciduous woodland Modified grassland	O LF

Scientific name	Common name	Habitat/s	Abundance in habitat type
		Other lowland acid grassland	O
<i>Lonicera periclymenum</i>	Honeysuckle	Lowland heathland Lowland mixed deciduous woodland Other lowland acid grassland	O LF LF
<i>Lotus corniculatus</i>	Common Bird's-foot-trefoil	Other lowland acid grassland Other neutral grassland Lowland dry acid grassland	O O O
<i>Luzula multiflora</i>	Heath Wood-rush	Lowland heathland Other lowland acid grassland	O O
<i>Lysimachia nummularia</i>	Creeping Jenny	Other lowland acid grassland	O
<i>Malus sp.</i>	an apple	Lowland mixed deciduous woodland	R
<i>Molinia caerulea</i>	Purple Moor-grass	Other lowland acid grassland	LF
<i>Nymphaea alba</i>	White Water-lily	Pond	LF
<i>Pentaglottis sempervirens</i>	Green Alkanet	Lowland mixed deciduous woodland	O
<i>Pilosella aurantiaca</i>	Fox-and-cubs	Other lowland acid grassland	R
<i>Pilosella officinarum</i>	Mouse-ear-hawkweed	Lowland dry acid grassland	LF
<i>Pinus sp.</i>	a pine	Lowland mixed deciduous woodland	O
<i>Pinus sylvestris</i>	Scots Pine	Lowland mixed deciduous woodland Other lowland acid grassland	LF O
<i>Plantago lanceolata</i>	Ribwort Plantain	Lowland dry acid grassland Lowland heathland	O O
<i>Plantago major</i>	Greater Plantain	Lowland mixed deciduous woodland Other lowland acid grassland	O O
<i>Poa annua</i>	Annual Meadow-grass	Lowland mixed deciduous woodland Modified grassland	O LF
<i>Poa nemoralis</i>	Wood Meadow-grass	Lowland mixed deciduous woodland	LF
<i>Poa trivialis</i>	Rough Meadow-grass	Lowland mixed deciduous woodland Other neutral grassland Modified grassland	LF F O
<i>Polytrichum sp.</i>	a haircap moss	Lowland mixed deciduous woodland	LF
<i>Potentilla anserina</i>	Silverweed	Lowland mixed deciduous woodland	O
<i>Potentilla erecta</i>	Tormentil	Lowland dry acid grassland Lowland heathland Other lowland acid grassland Lowland mixed deciduous woodland	LF LF O LF
<i>Potentilla reptans</i>	Creeping Cinquefoil	Other neutral grassland	O
<i>Prunella vulgaris</i>	Selfheal	Other lowland acid grassland	O
<i>Prunus avium</i>	Wild Cherry	Lowland mixed deciduous woodland	O
<i>Prunus domestica sens lat.</i>	Wild Plum	Other neutral grassland	O
<i>Prunus sp.</i>	a Cherry Laurel	Lowland mixed deciduous woodland	LF

Scientific name	Common name	Habitat/s	Abundance in habitat type
<i>Prunus spinosa</i>	Blackthorn	Lowland mixed deciduous woodland	O
<i>Pteridium aquilinum</i>	Bracken	Lowland mixed deciduous woodland Other lowland acid grassland Lowland heathland Hawthorn scrub Lowland dry acid grassland Bracken	LF LF LF LF LF A
<i>Quercus robur</i>	Pedunculate o Oak	Lowland mixed deciduous woodland Hawthorn scrub Other neutral grassland Line of trees	F O O LF
<i>Ranunculus acris</i>	Meadow Buttercup	Other neutral grassland Lowland dry acid grassland	O O
<i>Ranunculus repens</i>	Creeping Buttercup	Lowland mixed deciduous woodland Modified grassland Ponds	O O O
<i>Reynoutria japonica</i>	Japanese Knotweed	Modified grassland	R
<i>Rhinanthus minor</i>	Yellow-rattle	Other lowland acid grassland	LF
<i>Rhododendron ponticum</i>	Rhododendron	Lowland mixed deciduous woodland	R
<i>Ribes rubrum</i>	Red currant	Lowland mixed deciduous woodland	LF
<i>Ribes uva-crispa</i>	Gooseberry	Lowland mixed deciduous woodland	O
<i>Rosa arvensis</i>	Field-rose	Lowland mixed deciduous woodland	O
<i>Rosa canina</i>	Dog-rose	Lowland mixed deciduous woodland	O
<i>Rubus fruticosus</i> agg.	Bramble	Lowland heathland Hawthorn scrub Line of trees Lowland mixed deciduous woodland Other lowland acid grassland	LF O LF LF O
<i>Rumex acetosa</i>	Common Sorrel	Other lowland acid grassland Lowland mixed deciduous woodland Modified grassland	O LF O
<i>Rumex acetosella</i>	Sheep's Sorrel	Other lowland acid grassland	O
<i>Rumex obtusifolius</i>	Broad-leaved Dock	Lowland mixed deciduous woodland Ponds	O O
<i>Rumex sanguineus</i>	Wood Dock	Lowland mixed deciduous woodland	O
<i>Salix caprea</i>	Goat Willow	Lowland mixed deciduous woodland Other neutral grassland	O O
<i>Salix</i> sp.	a willow	Lowland mixed deciduous woodland	O
<i>Sambucus nigra</i>	Elder	Lowland mixed deciduous woodland Line of trees	O O
<i>Silene dioica</i>	Red Campion	Lowland mixed deciduous woodland	O
<i>Solanum dulcamara</i>	Bittersweet	Lowland mixed deciduous woodland	R
<i>Sorbus aucuparia</i>	Rowan	Lowland mixed deciduous woodland	O
<i>Stellaria graminea</i>	Lesser Stitchwort	Other lowland acid grassland Lowland heathland	O O

Scientific name	Common name	Habitat/s	Abundance in habitat type
		Lowland dry acid grassland	O
<i>Symphytum officinale</i>	Common Comfrey	Ponds	LF
<i>Tamus communis</i>	Black Bryony	Lowland mixed deciduous woodland	R
<i>Taraxacum agg.</i>	a dandelion	Other neutral grassland	O
		Other lowland acid grassland	O
<i>Taxus baccata</i>	Yew	Lowland mixed deciduous woodland	O
<i>Teucrium scorodonia</i>	Wood Sage	Lowland mixed deciduous woodland	O
<i>Tragopogon pratensis agg.</i>	Goat's-beard	Lowland dry acid grassland	LF
<i>Trifolium pratense</i>	Red Clover	Other neutral grassland	O
		Lowland mixed deciduous woodland	O
<i>Trifolium repens</i>	White Clover	Modified grassland	LF
<i>Ulex europaeus</i>	Gorse	Lowland heathland	F
		Hawthorn scrub	O
		Other lowland acid grassland	O
		Lowland mixed deciduous woodland	O
<i>Ulmus procera</i>	English Elm	Lowland mixed deciduous woodland	O
<i>Urtica dioica</i>	Common Nettle	Lowland mixed deciduous woodland	LF
		Ponds	LF
<i>Veronica chamaedrys</i>	Germander Speedwell	Lowland mixed deciduous woodland	O
<i>Veronica officinalis</i>	Heath Speedwell	Lowland heathland	O
		Lowland dry acid grassland	O
		Other lowland acid grassland	O
<i>Veronica montana</i>	Wood Speedwell	Lowland mixed deciduous woodland	O
<i>Veronica serpyllifolia</i>	Thyme-leaved Speedwell	Lowland mixed deciduous woodland	LF
<i>Vicia cracca</i>	Tufted Vetch	Other neutral grassland	O
<i>Vicia sativa</i>	Common Vetch	Other neutral grassland	O
<i>Vicia sepium</i>	Bush Vetch	Lowland mixed deciduous woodland	O
<i>Vinca c.f. major</i>	Greater Periwinkle	Lowland mixed deciduous woodland	LF

Appendix 4: Scientific names of fauna species referred to in the report

Amphibians

- *Bufo bufo* – Common Toad
- *Lissotriton vulgaris* – Smooth Newt
- *Rana temporaria* – Common Frog
- *Triturus cristatus* – Great Crested Newt

Bats

- *Eptesicus serotinus* – Serotine
- *Myotis sp.* – a myotis bat
- *Nyctalus leisleri* – Leisler's
- *Nyctalus noctula* – Noctule
- *Pipistrellus nathusii* – Nathusius' Pipistrelle
- *Pipistrellus pipistrellus* – Common Pipistrelle
- *Pipistrellus pygmaeus* – Soprano Pipistrelle
- *Plecotus auritus* – Brown Long-eared

Birds

- *Alauda arvensis* - Skylark
- *Buteo buteo* - Buzzard
- *Certhia familiaris* - Treecreeper
- *Columba palumbus* - Wood Pigeon
- *Corvus corone* - Carrion Crow
- *Corvus monedula* - Jackdaw
- *Emberiza citronella* - Yellowhammer
- *Erithacus rubecula* – Robin
- *Falco subbuteo* - Hobby
- *Gallinula chloropus* - Moorhen
- *Garrulus glandarius* - Eurasian Jay
- *Loxia curvirostra* – Common Crossbill
- *Phasianus colchicus* - Pheasant
- *Phylloscopus collybita* - Chiffchaff
- *Pica pica* - Magpie
- *Prunella modularis* - Dunnock
- *Sylvia atricapilla* - Eurasian Blackcap
- *Turdus merula* - Blackbird
- *Vanellus vanellus* – Northern Lapwing

Mammals (except bats)

- *Erinaceus europaeus* – West European Hedgehog
- *Meles meles* – Eurasian Badger

- *Muscardinus avellanarius* – Hazel Dormouse
- *Mustela putorius* – Polecat
- *Sciurus carolinensis* – Eastern Grey Squirrel

Reptiles

- *Anguis fragilis* – Slow-worm
- *Natrix helvetica* – Grass Snake
- *Vipera berus* – Adder
- *Zootoca vivipara* – Common Lizard

Invertebrates

- *Acronicta psi* – Grey Dagger
- *Apatura iris* – Purple Emperor
- *Coenonympha pamphilus* – Small Heath
- *Ennomos fuscantaria* – Dusky Thorn
- *Limenitis camilla* – White Admiral
- *Lucanus cervus* – Stag Beetle
- *Metrioptera brachyptera* – Bog Bush-cricket
- *Pyrgus malvae* – Grizzled Skipper
- *Satyrus w-album* – White Letter Hairstreak
- *Thecla betulae* – Brown Hairstreak

Appendix 5: Habitat condition forms

Habitat	Compartment number	Condition	Justification (Natural England, 2023)		
			Criteria	Score	Comment
Lowland dry acid grassland Habitat Code: g1a	1.1	Good	The grassland is a good representation of the habitat type it has been identified as, based on its UKHab description – the appearance and composition of the vegetation closely matches the characteristics of the specific grassland habitat type. Indicator species listed by UKHab for the specific grassland type are consistently present	Pass	Four indicator species recorded as present including Heath Speedwell, Heath Bedstraw, Tormentil and Bird's-foot Trefoil. An average of 10.6 species per metre square across five quadrates and a good cover of herbs and <10% cover of Rye grasses and White Clover.
			Sward height is varied (at least 20% of the sward is less than 7 cm and at least 20 per cent is more than 7 cm) creating microclimates which provide opportunities for insects, birds and small mammals to live and breed.	Pass	No comments.
			Cover of bare ground is between 1% and 5%, including localised areas, for example, rabbit warrens	Pass	No comments.
			Cover of Bracken is less than 20% and cover of scrub (including Bramble) is less than 5%	Pass	No comments.
			Combined cover of species indicative of sub-optimal condition and physical damage (such as excessive poaching, damage from machinery use or storage, damaging levels of access, or any other damaging management activities) accounts for less than 5% of total area. If any invasive non-native plant species (as listed on Schedule 9 of WCA). Are present this criterion is automatically failed.	Pass	No comments.
			There are 10 or more vascular plant species per m ² present, including forbs that are characteristic of the habitat type (not including negative indicators).	N/a	Applicable for non-acid grassland types only.
Lowland dry acid grassland Habitat Code: g1a	1.2	Moderate	The grassland is a good representation of the habitat type it has been identified as, based on its UKHab description – the appearance and composition of the vegetation closely matches the characteristics of the specific grassland habitat type. Indicator species listed by UKHab for the specific grassland type are consistently present	Pass	Four indicator species recorded as present including Mouse-ear-hawkweed, Heath Bedstraw, Tormentil and Ling. An average of 11.2 species per metre square across five quadrates and a good cover of herbs and <10% cover of Rye grasses and White Clover.
			Sward height is varied (at least 20% of the sward is less than 7 cm and at least 20 per cent is more than 7 cm) creating microclimates which provide opportunities for insects, birds and small mammals to live and breed.	Fail	Sward height is not varied.
			Cover of bare ground is between 1% and 5%, including localised areas, for example, rabbit warrens	Pass	No comments.
			Cover of Bracken is less than 20% and cover of scrub (including Bramble) is less than 5%	Pass	No comments.
			Combined cover of species indicative of sub-optimal condition and physical damage (such as excessive poaching, damage from machinery use or storage, damaging levels of access, or any other damaging management activities) accounts for less than 5% of total area. If any invasive non-native plant species (as listed on Schedule 9 of WCA). Are present this criterion is automatically failed.	Pass	No comments.
			There are 10 or more vascular plant species per m ² present, including forbs that are characteristic of the habitat type (not including negative indicators).	n/a	Applicable for non-acid grassland types only.
Bracken Habitat Code: g1c	2.1	Condition assessment n/a.	The grassland is a good representation of the habitat type it has been identified as, based on its UKHab description – the appearance and composition of the vegetation closely matches the characteristics of the specific grassland habitat type. Indicator species listed by UKHab for the specific grassland type are consistently present	N/a	Condition assessment not applicable to Bracken.
			Sward height is varied (at least 20% of the sward is less than 7 cm and at least 20 per cent is more than 7 cm) creating microclimates which provide opportunities for insects, birds and small mammals to live and breed.	N/a	Sward height is not varied and is dominated by tall Bracken.
			Cover of bare ground is between 1% and 5%, including localised areas, for example, rabbit warrens	N/a	Condition assessment not applicable to Bracken.
			Cover of Bracken is less than 20% and cover of scrub (including Bramble) is less than 5%	N/a	Condition assessment not applicable to Bracken.
			Combined cover of species indicative of sub-optimal condition and physical damage (such as excessive poaching, damage from machinery use or storage, damaging levels of access, or any other damaging management activities) accounts for less than 5% of total area. If any invasive non-native plant species (as listed on Schedule 9 of WCA). Are present this criterion is automatically failed.	N/a	Condition assessment not applicable to Bracken.
			There are 10 or more vascular plant species per m ² present, including forbs that are characteristic of the habitat type (not including negative indicators).	N/a	Condition assessment not applicable to Bracken.
Other lowland acid grassland	3.1	Moderate	The grassland is a good representation of the habitat type it has been identified as, based on its UKHab description – the appearance and composition of the vegetation closely matches the characteristics of the specific grassland habitat type. Indicator species listed by UKHab for the specific grassland type are consistently present	Fail	Area of neutral grassland influence along well used access routes and junctions.

Habitat	Compartment number	Condition	Justification (Natural England, 2023)		
			Criteria	Score	Comment
Habitat Code: g1d			Sward height is varied (at least 20% of the sward is less than 7 cm and at least 20 per cent is more than 7 cm) creating microclimates which provide opportunities for insects, birds and small mammals to live and breed.	Pass	No comments.
			Cover of bare ground is between 1% and 5%, including localised areas, for example, rabbit warrens	Pass	No comments.
			Cover of Bracken is less than 20% and cover of scrub (including Bramble) is less than 5%	Pass	No comments.
			Combined cover of species indicative of sub-optimal condition and physical damage (such as excessive poaching, damage from machinery use or storage, damaging levels of access, or any other damaging management activities) accounts for less than 5% of total area. If any invasive non-native plant species (as listed on Schedule 9 of WCA). Are present this criterion is automatically failed.	Fail	Species indicative of a sub optimal condition are >5%.
			There are 10 or more vascular plant species per m ² present, including forbs that are characteristic of the habitat type (not including negative indicators).	N/a	Applicable for non-acid grassland types only.
Other lowland acid grassland Habitat Code: g1d	3.2	Good	The grassland is a good representation of the habitat type it has been identified as, based on its UKHab description – the appearance and composition of the vegetation closely matches the characteristics of the specific grassland habitat type. Indicator species listed by UKHab for the specific grassland type are consistently present	Pass	No comments.
			Sward height is varied (at least 20% of the sward is less than 7 cm and at least 20 per cent is more than 7 cm) creating microclimates which provide opportunities for insects, birds and small mammals to live and breed.	Pass	No comments.
			Cover of bare ground is between 1% and 5%, including localised areas, for example, rabbit warrens	Pass	No comments.
			Cover of Bracken is less than 20% and cover of scrub (including Bramble) is less than 5%	Pass	No comments.
			Combined cover of species indicative of sub-optimal condition and physical damage (such as excessive poaching, damage from machinery use or storage, damaging levels of access, or any other damaging management activities) accounts for less than 5% of total area. If any invasive non-native plant species (as listed on Schedule 9 of WCA). Are present this criterion is automatically failed.	Pass	No comments.
			There are 10 or more vascular plant species per m ² present, including forbs that are characteristic of the habitat type (not including negative indicators).	N/a	Applicable for non-acid grassland types only.
Other lowland acid grassland Habitat Code: g1d	3.3	Moderate	The grassland is a good representation of the habitat type it has been identified as, based on its UKHab description – the appearance and composition of the vegetation closely matches the characteristics of the specific grassland habitat type. Indicator species listed by UKHab for the specific grassland type are consistently present	Fail	Some neutral grassland influence and areas of locally frequent Bracken.
			Sward height is varied (at least 20% of the sward is less than 7 cm and at least 20 per cent is more than 7 cm) creating microclimates which provide opportunities for insects, birds and small mammals to live and breed.	Pass	No comments.
			Cover of bare ground is between 1% and 5%, including localised areas, for example, rabbit warrens	Pass	No comments.
			Cover of Bracken is less than 20% and cover of scrub (including Bramble) is less than 5%	Fail	Cover of Bracken is >20%.
			Combined cover of species indicative of sub-optimal condition and physical damage (such as excessive poaching, damage from machinery use or storage, damaging levels of access, or any other damaging management activities) accounts for less than 5% of total area. If any invasive non-native plant species (as listed on Schedule 9 of WCA). Are present this criterion is automatically failed.	Pass	No comments.
			There are 10 or more vascular plant species per m ² present, including forbs that are characteristic of the habitat type (not including negative indicators).	N/a	Applicable for non-acid grassland types only.
Other lowland acid grassland Habitat Code: g1d	3.4	Poor	The grassland is a good representation of the habitat type it has been identified as, based on its UKHab description – the appearance and composition of the vegetation closely matches the characteristics of the specific grassland habitat type. Indicator species listed by UKHab for the specific grassland type are consistently present	Fail	Large area of neutral grassland influence in the northern section and Bracken is frequent across the majority of the compartment.
			Sward height is varied (at least 20% of the sward is less than 7 cm and at least 20 per cent is more than 7 cm) creating microclimates which provide opportunities for insects, birds and small mammals to live and breed.	Pass	No comments.
			Cover of bare ground is between 1% and 5%, including localised areas, for example, rabbit warrens	Fail	Cover of bare ground >5%.
			Cover of Bracken is less than 20% and cover of scrub (including Bramble) is less than 5%	Fail	Cover of Bracken is >20%.

Habitat	Compartment number	Condition	Justification (Natural England, 2023)		
			Criteria	Score	Comment
			Combined cover of species indicative of sub-optimal condition and physical damage (such as excessive poaching, damage from machinery use or storage, damaging levels of access, or any other damaging management activities) accounts for less than 5% of total area. If any invasive non-native plant species (as listed on Schedule 9 of WCA). Are present this criterion is automatically failed.	Pass	No comments.
			There are 10 or more vascular plant species per m ² present, including forbs that are characteristic of the habitat type (not including negative indicators).	N/a	Applicable for non-acid grassland types only.
Other lowland acid grassland Habitat Code: g1d	3.5	Poor	The grassland is a good representation of the habitat type it has been identified as, based on its UKHab description – the appearance and composition of the vegetation closely matches the characteristics of the specific grassland habitat type. Indicator species listed by UKHab for the specific grassland type are consistently present	Fail	Bracken is frequent and diversity of species and structure is lacking.
			Sward height is varied (at least 20% of the sward is less than 7 cm and at least 20 per cent is more than 7 cm) creating microclimates which provide opportunities for insects, birds and small mammals to live and breed.	Fail	Sward height is not varied. Sward is short except for Bracken regrowth.
			Cover of bare ground is between 1% and 5%, including localised areas, for example, rabbit warrens	Pass	No comments.
			Cover of Bracken is less than 20% and cover of scrub (including Bramble) is less than 5%	Fail	Cover of Bracken is >20%.
			Combined cover of species indicative of sub-optimal condition and physical damage (such as excessive poaching, damage from machinery use or storage, damaging levels of access, or any other damaging management activities) accounts for less than 5% of total area. If any invasive non-native plant species (as listed on Schedule 9 of WCA). Are present this criterion is automatically failed.	Pass	No comments.
			There are 10 or more vascular plant species per m ² present, including forbs that are characteristic of the habitat type (not including negative indicators).	N/a	Applicable for non-acid grassland types only.
Other lowland acid grassland Habitat Code: g1d	3.6	Poor	The grassland is a good representation of the habitat type it has been identified as, based on its UKHab description – the appearance and composition of the vegetation closely matches the characteristics of the specific grassland habitat type. Indicator species listed by UKHab for the specific grassland type are consistently present	Fail	Bracken is frequent across this compartment.
			Sward height is varied (at least 20% of the sward is less than 7 cm and at least 20 per cent is more than 7 cm) creating microclimates which provide opportunities for insects, birds and small mammals to live and breed.	Fail	Sward height is not varied.
			Cover of bare ground is between 1% and 5%, including localised areas, for example, rabbit warrens	Pass	No comments.
			Cover of Bracken is less than 20% and cover of scrub (including Bramble) is less than 5%	Fail	Cover of Bracken is >20%.
			Combined cover of species indicative of sub-optimal condition and physical damage (such as excessive poaching, damage from machinery use or storage, damaging levels of access, or any other damaging management activities) accounts for less than 5% of total area. If any invasive non-native plant species (as listed on Schedule 9 of WCA). Are present this criterion is automatically failed.	Pass	No comments.
			There are 10 or more vascular plant species per m ² present, including forbs that are characteristic of the habitat type (not including negative indicators).	N/a	Applicable for non-acid grassland types only.
Other lowland acid grassland Habitat Code: g1d	3.7	Poor	The grassland is a good representation of the habitat type it has been identified as, based on its UKHab description – the appearance and composition of the vegetation closely matches the characteristics of the specific grassland habitat type. Indicator species listed by UKHab for the specific grassland type are consistently present	Fail	Bracken is frequent across this compartment.
			Sward height is varied (at least 20% of the sward is less than 7 cm and at least 20 per cent is more than 7 cm) creating microclimates which provide opportunities for insects, birds and small mammals to live and breed.	Fail	Sward height is not varied.
			Cover of bare ground is between 1% and 5%, including localised areas, for example, rabbit warrens	Pass	No comments.
			Cover of Bracken is less than 20% and cover of scrub (including Bramble) is less than 5%	Fail	Cover of Bracken is >20%.
			Combined cover of species indicative of sub-optimal condition and physical damage (such as excessive poaching, damage from machinery use or storage, damaging levels of access, or any other damaging management activities) accounts for less than 5% of total area. If any invasive non-native plant species (as listed on Schedule 9 of WCA). Are present this criterion is automatically failed.	Pass	No comments.

Habitat	Compartment number	Condition	Justification (Natural England, 2023)		
			Criteria	Score	Comment
			There are 10 or more vascular plant species per m ² present, including forbs that are characteristic of the habitat type (not including negative indicators).	N/a	Applicable for non-acid grassland types only.
Other lowland acid grassland Habitat Code: g1d	3.8	Moderate	The grassland is a good representation of the habitat type it has been identified as, based on its UKHab description – the appearance and composition of the vegetation closely matches the characteristics of the specific grassland habitat type. Indicator species listed by UKHab for the specific grassland type are consistently present	Fail	Bracken is frequent across these sub-compartment.
			Sward height is varied (at least 20% of the sward is less than 7 cm and at least 20 per cent is more than 7 cm) creating microclimates which provide opportunities for insects, birds and small mammals to live and breed.	Pass	No comments.
			Cover of bare ground is between 1% and 5%, including localised areas, for example, rabbit warrens	Pass	No comments.
			Cover of Bracken is less than 20% and cover of scrub (including Bramble) is less than 5%	Pass	No comments.
			Combined cover of species indicative of sub-optimal condition and physical damage (such as excessive poaching, damage from machinery use or storage, damaging levels of access, or any other damaging management activities) accounts for less than 5% of total area. If any invasive non-native plant species (as listed on Schedule 9 of WCA). Are present this criterion is automatically failed.	Pass	No comments.
			There are 10 or more vascular plant species per m ² present, including forbs that are characteristic of the habitat type (not including negative indicators).	N/a	No comments.
Other lowland acid grassland Habitat Code: g1d	3.9	Moderate	The grassland is a good representation of the habitat type it has been identified as, based on its UKHab description – the appearance and composition of the vegetation closely matches the characteristics of the specific grassland habitat type. Indicator species listed by UKHab for the specific grassland type are consistently present	Fail	Grassland recently cut so identification difficult.
			Sward height is varied (at least 20% of the sward is less than 7 cm and at least 20 per cent is more than 7 cm) creating microclimates which provide opportunities for insects, birds and small mammals to live and breed.	Fail	Sward height is uniform due to cutting management.
			Cover of bare ground is between 1% and 5%, including localised areas, for example, rabbit warrens	Pass	No comments.
			Cover of Bracken is less than 20% and cover of scrub (including Bramble) is less than 5%	Pass	No comments.
			Combined cover of species indicative of sub-optimal condition and physical damage (such as excessive poaching, damage from machinery use or storage, damaging levels of access, or any other damaging management activities) accounts for less than 5% of total area. If any invasive non-native plant species (as listed on Schedule 9 of WCA). Are present this criterion is automatically failed.	Pass	No comments.
			There are 10 or more vascular plant species per m ² present, including forbs that are characteristic of the habitat type (not including negative indicators).	N/a	No comments.
Other neutral grassland Habitat Code: g3c	4.1	Good	The grassland is a good representation of the habitat type it has been identified as, based on its UKHab description – the appearance and composition of the vegetation closely matches the characteristics of the specific grassland habitat type. Indicator species listed by UKHab for the specific grassland type are consistently present	Pass	No comments.
			Sward height is varied (at least 20% of the sward is less than 7 cm and at least 20 per cent is more than 7 cm) creating microclimates which provide opportunities for insects, birds and small mammals to live and breed.	Pass	Areas of shorter mown grass and areas of longer unmanaged grass.
			Cover of bare ground is between 1% and 5%, including localised areas, for example, rabbit warrens	Pass	No comments.
			Cover of Bracken is less than 20% and cover of scrub (including Bramble) is less than 5%	Pass	No comments.
			Combined cover of species indicative of sub-optimal condition and physical damage (such as excessive poaching, damage from machinery use or storage, damaging levels of access, or any other damaging management activities) accounts for less than 5% of total area. If any invasive non-native plant species (as listed on Schedule 9 of WCA). Are present this criterion is automatically failed.	Pass	No comments.
			There are 10 or more vascular plant species per m ² present, including forbs that are characteristic of the habitat type (not including negative indicators).	Pass	An average of 11.4 species per square metre across all quadrats.
Modified grassland	5.1	Poor	There are 6-8 vascular plant species per m ² present, including at least 2 forbs. Note - this criterion is essential for achieving Moderate or Good condition.	Unknown	Area heavily managed as a cricket pitch. Plant identification difficult.

Habitat	Compartment number	Condition	Justification (Natural England, 2023)		
			Criteria	Score	Comment
Habitat Code:			Sward height is varied (at least 20% of the sward is less than 7 cm and at least 20 per cent is more than 7 cm) creating microclimates which provide opportunities for insects, birds and small mammals to live and breed.	Fail	Sward height is uniform due to heavy management.
			Some scattered scrub (including Bramble) may be present, but scrub accounts for less than 20% of total grassland area.	Pass	No comments.
			Physical damage is evident in less than 5% of total grassland area. Examples of physical damage include excessive poaching, damage from machinery use or storage, erosion caused by high levels of access, or any other damaging management activities.	Fail	Signs of scuffed grassland heavy management.
			Cover of bare ground is between 1% and 10%, including localised areas (for example, a concentration of rabbit warrens).	Pass	No comments.
			Cover of Bracken is less than 20%.	Pass	No comments.
			There is an absence of invasive non-native plant species (as listed on Schedule 9 of WCA).	Pass	No comments.
Lowland mixed deciduous woodland Habitat Code: w1f	6.1	Good	Age distribution of trees	3	Three age classes present.
			Wild, domestic and feral herbivore damage	3	No significant browsing damage evident in woodland.
			Invasive plant species	1	Cherry Laurel, Rhododendron and Greater Periwinkle recorded.
			Number of native tree species	3	Five or more native tree or shrub species found across woodland parcel.
			Cover of native tree and shrub species	3	>80% of canopy trees and >80% of understory shrubs are native.
			Open space within woodland	3	10 - 20% of woodland has areas of temporary open space.
			Woodland regeneration	3	All three classes present in woodland; trees 4 - 7 cm Diameter at Breast Height (DBH), saplings and seedlings or advanced coppice regrowth.
			Tree health	3	Tree mortality less than 10%, no pests or diseases and no crown dieback.
			Vegetation and ground flora	2	Recognisable woodland NVC plant community at ground layer present.
			Woodland vertical structure	3	Three or more storeys across all survey plots, or a complex woodland.
			Veteran trees	1	No veteran trees recorded.
			Amount of dead wood	3	50% of all survey plots within the woodland parcel have deadwood, such as standing deadwood, large dead branches and or stems, branch stubs and stumps, or an abundance of small cavities.
			Woodland disturbance	2	Less than 1 hectare in total of nutrient enrichment across woodland area and or less than 20% of woodland area has damaged ground.
			Total	33	
Lowland mixed deciduous woodland Habitat Code: w1f	6.2	Moderate	Age distribution of trees	2	Two age classes present.
			Wild, domestic and feral herbivore damage	3	No significant browsing damage evident in woodland.
			Invasive plant species	1	Rhododendron recorded.
			Number of native tree species	3	Five or more native tree or shrub species found across woodland parcel.
			Cover of native tree and shrub species	3	>80% of canopy trees and >80% of understory shrubs are native.
			Open space within woodland	3	10 - 20% of woodland has areas of temporary open space.

Habitat	Compartment number	Condition	Justification (Natural England, 2023)		
			Criteria	Score	Comment
			Woodland regeneration	2	One or two classes only present in woodland.
			Tree health	3	Tree mortality less than 10%, no pests or diseases and no crown dieback.
			Vegetation and ground flora	1	Ground layer sparse.
			Woodland vertical structure	2	Two storeys across woodland.
			Veteran trees	1	No veteran trees recorded.
			Amount of dead wood	1	Levels of fallen dead wood are low.
			Woodland disturbance	3	No nutrient enrichment or damaged ground evident.
			Total	28	
Lowland mixed deciduous woodland Habitat Code: w1f	6.3	Moderate	Age distribution of trees	2	Two age classes present.
			Wild, domestic and feral herbivore damage	3	No significant browsing damage evident in woodland.
			Invasive plant species	3	No invasive non-natives recorded.
			Number of native tree species	2	Three to four native tree or shrub species found across woodland parcel.
			Cover of native tree and shrub species	3	>80% of canopy trees and >80% of understory shrubs are native.
			Open space within woodland	1	No open spaces present.
			Woodland regeneration	3	All three classes present in woodland; trees 4 - 7 cm Diameter at Breast Height (DBH), saplings and seedlings or advanced coppice regrowth.
			Tree health	3	Tree mortality less than 10%, no pests or diseases and no crown dieback.
			Vegetation and ground flora	2	Recognisable woodland NVC plant community at ground layer present.
			Woodland vertical structure	2	Two storeys across woodland.
			Veteran trees	1	No veteran trees recorded.
			Amount of dead wood	2	Between 25% and 50% of all survey plots within the woodland parcel have deadwood, such as standing deadwood, large dead branches and or stems, stubs and stumps, or an abundance of small cavities.
			Woodland disturbance	3	No nutrient enrichment or damaged ground evident.
			Total	30	
Lowland mixed deciduous woodland Habitat Code: w1f	6.4	Good	Age distribution of trees	3	Three age classes present.
			Wild, domestic and feral herbivore damage	2	Evidence of significant browsing pressure is present in 40% or less of whole woodland.
			Invasive plant species	1	Cherry Laurel recorded.
			Number of native tree species	3	Five or more native tree or shrub species found across woodland parcel.
			Cover of native tree and shrub species	3	>80% of canopy trees and >80% of understory shrubs are native.
			Open space within woodland	3	10 - 20% of woodland has areas of temporary open space.
			Woodland regeneration	3	All three classes present in woodland; trees 4 - 7 cm Diameter at Breast Height (DBH), saplings and seedlings or advanced coppice regrowth.

Habitat	Compartment number	Condition	Justification (Natural England, 2023)		
			Criteria	Score	Comment
			Tree health	3	Tree mortality less than 10%, no pests or diseases and no crown dieback.
			Vegetation and ground flora	3	Recognisable NVC plant community at ground layer present, strongly characterised by ancient woodland flora specialists.
			Woodland vertical structure	3	Three or more storeys across all survey plots, or a complex woodland.
			Veteran trees	1	No veteran trees recorded.
			Amount of dead wood	3	50% of all survey plots within the woodland parcel have deadwood, such as standing deadwood, large dead branches and or stems, branch stubs and stumps, or an abundance of small cavities.
			Woodland disturbance	2	Less than 1 hectare in total of nutrient enrichment across woodland area and or less than 20% of woodland area has damaged ground.
			Total	33	
Lowland mixed deciduous woodland Habitat Code: w1f	6.5	Moderate	Age distribution of trees	3	Three age classes present.
			Wild, domestic and feral herbivore damage	3	No significant browsing damage evident in woodland.
			Invasive plant species	3	No invasive non-natives recorded.
			Number of native tree species	3	Five or more native tree or shrub species found across woodland parcel.
			Cover of native tree and shrub species	3	>80% of canopy trees and >80% of understory shrubs are native.
			Open space within woodland	1	<10% or >40% of woodland has areas of temporary open space.
			Woodland regeneration	3	All three classes present in woodland; trees 4 - 7 cm Diameter at Breast Height (DBH), saplings and seedlings or advanced coppice regrowth.
			Tree health	3	Tree mortality less than 10%, no pests or diseases and no crown dieback.
			Vegetation and ground flora	2	Recognisable woodland NVC plant community at ground layer present.
			Woodland vertical structure	2	Two storeys across woodland.
			Veteran trees	1	No veteran trees recorded.
			Amount of dead wood	2	Between 25% and 50% of all survey plots within the woodland parcel have deadwood, such as standing deadwood, large dead branches and or stems, stubs and stumps, or an abundance of small cavities.
			Woodland disturbance	2	Some enrichment along edge where walkers are often passing.
			Total	31	
Lowland mixed deciduous woodland Habitat Code: w1f	6.6	Moderate	Age distribution of trees	2	Two age classes present.
			Wild, domestic and feral herbivore damage	3	No significant browsing damage evident in woodland.
			Invasive plant species	3	No invasive non-natives recorded.
			Number of native tree species	3	Five or more native tree or shrub species found across woodland parcel.
			Cover of native tree and shrub species	3	>80% of canopy trees and >80% of understory shrubs are native.
			Open space within woodland	1	<10% or >40% of woodland has areas of temporary open space.
			Woodland regeneration	3	All three classes present in woodland; trees 4 - 7 cm Diameter at Breast Height (DBH), saplings and seedlings or advanced coppice regrowth.

Habitat	Compartment number	Condition	Justification (Natural England, 2023)		
			Criteria	Score	Comment
			Tree health	3	Tree mortality less than 10%, no pests or diseases and no crown dieback.
			Vegetation and ground flora	1	No recognisable woodland NVC plant community at ground layer present.
			Woodland vertical structure	2	Two storeys across woodland.
			Veteran trees	1	No veteran trees recorded.
			Amount of dead wood	2	Between 25% and 50% of all survey plots within the woodland parcel have deadwood, such as standing deadwood, large dead branches and or stems, stubs and stumps, or an abundance of small cavities.
			Woodland disturbance	3	No nutrient enrichment or damaged ground evident.
			Total	30	
Lowland mixed deciduous woodland Habitat Code: w1f	6.7	Moderate	Age distribution of trees	3	Three age classes present.
			Wild, domestic and feral herbivore damage	3	No significant browsing damage evident in woodland.
			Invasive plant species	3	No invasive non-natives recorded.
			Number of native tree species	3	Five or more native tree or shrub species found across woodland parcel.
			Cover of native tree and shrub species	3	>80% of canopy trees and >80% of understory shrubs are native.
			Open space within woodland	1	<10% or >40% of woodland has areas of temporary open space.
			Woodland regeneration	3	All three classes present in woodland; trees 4 - 7 cm Diameter at Breast Height (DBH), saplings and seedlings or advanced coppice regrowth.
			Tree health	3	Tree mortality less than 10%, no pests or diseases and no crown dieback.
			Vegetation and ground flora	2	Recognisable woodland NVC plant community at ground layer present.
			Woodland vertical structure	2	Two storeys across woodland.
			Veteran trees	1	No veteran trees recorded.
			Amount of dead wood	2	Between 25% and 50% of all survey plots within the woodland parcel have deadwood, such as standing deadwood, large dead branches and or stems, stubs and stumps, or an abundance of small cavities.
			Woodland disturbance	3	No nutrient enrichment or damaged ground evident.
			Total	32	
Lowland mixed deciduous woodland Habitat Code: w1f	6.8	Good	Age distribution of trees	3	Three age classes present.
			Wild, domestic and feral herbivore damage	2	Evidence of significant browsing pressure is present in 40% or less of whole woodland.
			Invasive plant species	3	No invasive non-natives recorded.
			Number of native tree species	3	Five or more native tree or shrub species found across woodland parcel.
			Cover of native tree and shrub species	2	>80% of canopy trees and >80% of understory shrubs are native.
			Open space within woodland	2	21 - 40% of woodland has areas of temporary open space.
			Woodland regeneration	3	All three classes present in woodland; trees 4 - 7 cm Diameter at Breast Height (DBH), saplings and seedlings or advanced coppice regrowth.
			Tree health	3	Tree mortality less than 10%, no pests or diseases and no crown dieback.

Habitat	Compartment number	Condition	Justification (Natural England, 2023)		
			Criteria	Score	Comment
			Vegetation and ground flora	2	Recognisable woodland NVC plant community at ground layer present.
			Woodland vertical structure	3	Three or more storeys across all survey plots, or a complex woodland.
			Veteran trees	2	One tree with veteran features recorded.
			Amount of dead wood	3	50% of all survey plots within the woodland parcel have deadwood, such as standing deadwood, large dead branches and or stems, branch stubs and stumps, or an abundance of small cavities.
			Woodland disturbance	2	Less than 1 hectare in total of nutrient enrichment across woodland area and or less than 20% of woodland area has damaged ground.
			Total	33	
Lowland mixed deciduous woodland Habitat Code: w1f	6.9	Moderate	Age distribution of trees	3	Three age classes present.
			Wild, domestic and feral herbivore damage	3	No significant browsing damage evident in woodland.
			Invasive plant species	1	Cherry Laurel recorded.
			Number of native tree species	3	Five or more native tree or shrub species found across woodland parcel.
			Cover of native tree and shrub species	3	>80% of canopy trees and >80% of understory shrubs are native.
			Open space within woodland	1	<10% or >40% of woodland has areas of temporary open space.
			Woodland regeneration	2	One or two classes only present in woodland.
			Tree health	3	Tree mortality less than 10%, no pests or diseases and no crown dieback.
			Vegetation and ground flora	2	Recognisable woodland NVC plant community at ground layer present.
			Woodland vertical structure	3	Three or more storeys across all survey plots, or a complex woodland.
			Veteran trees	1	No veteran trees recorded.
			Amount of dead wood	2	Between 25% and 50% of all survey plots within the woodland parcel have deadwood, such as standing deadwood, large dead branches and or stems, stubs and stumps, or an abundance of small cavities.
			Woodland disturbance	2	Less than 1 hectare in total of nutrient enrichment across woodland area and or less than 20% of woodland area has damaged ground.
			Total	29	
Lowland mixed deciduous woodland Habitat Code: w1f	6.10	Moderate	Age distribution of trees	2	Two age classes present.
			Wild, domestic and feral herbivore damage	2	Evidence of significant browsing pressure is present in 40% or less of whole woodland.
			Invasive plant species	3	No invasive non-natives recorded.
			Number of native tree species	2	Three to four native tree or shrub species found across woodland parcel.
			Cover of native tree and shrub species	3	>80% of canopy trees and >80% of understory shrubs are native.
			Open space within woodland	1	<10% or >40% of woodland has areas of temporary open space.
			Woodland regeneration	2	One or two classes only present in woodland.
			Tree health	3	Tree mortality less than 10%, no pests or diseases and no crown dieback.

Habitat	Compartment number	Condition	Justification (Natural England, 2023)		
			Criteria	Score	Comment
			Vegetation and ground flora	2	Recognisable woodland NVC plant community at ground layer present.
			Woodland vertical structure	2	Two storeys across woodland.
			Veteran trees	1	No veteran trees recorded.
			Amount of dead wood	2	Between 25% and 50% of all survey plots within the woodland parcel have deadwood, such as standing deadwood, large dead branches and or stems, stubs and stumps, or an abundance of small cavities.
			Woodland disturbance	3	No nutrient enrichment or damaged ground evident.
			Total	28	
Lowland mixed deciduous woodland Habitat Code: w1f	6.11	Moderate	Age distribution of trees	2	Two age classes present.
			Wild, domestic and feral herbivore damage	3	No significant browsing damage evident in woodland.
			Invasive plant species	1	A Cherry Laurel sp. recorded.
			Number of native tree species	3	Five or more native tree or shrub species found across woodland parcel.
			Cover of native tree and shrub species	3	>80% of canopy trees and >80% of understory shrubs are native.
			Open space within woodland	2	21 - 40% of woodland has areas of temporary open space.
			Woodland regeneration	2	One or two classes only present in woodland.
			Tree health	3	Tree mortality less than 10%, no pests or diseases and no crown dieback.
			Vegetation and ground flora	2	Recognisable woodland NVC plant community at ground layer present.
			Woodland vertical structure	3	Three or more storeys across all survey plots, or a complex woodland.
			Veteran trees	1	No veteran trees recorded.
			Amount of dead wood	2	Between 25% and 50% of all survey plots within the woodland parcel have deadwood, such as standing deadwood, large dead branches and or stems, stubs and stumps, or an abundance of small cavities.
			Woodland disturbance	3	No nutrient enrichment or damaged ground evident.
			Total	30	
Lowland mixed deciduous woodland Habitat Code: w1f	6.12	Good	Age distribution of trees	3	Three age classes present.
			Wild, domestic and feral herbivore damage	3	No significant browsing damage evident in woodland.
			Invasive plant species	3	No invasives recorded but possibly missed due to size of woodland parcel.
			Number of native tree species	3	Five or more native tree or shrub species found across woodland parcel.
			Cover of native tree and shrub species	3	>80% of canopy trees and >80% of understory shrubs are native.
			Open space within woodland	2	Several areas of open space and some access points mown with a tractor.
			Woodland regeneration	3	All three classes present in woodland; trees 4 - 7 cm Diameter at Breast Height (DBH), saplings and seedlings or advanced coppice regrowth.
			Tree health	3	Tree mortality less than 10%, no pests or diseases and no crown dieback.
			Vegetation and ground flora	2	Recognisable woodland NVC plant community at ground layer present.

Habitat	Compartment number	Condition	Justification (Natural England, 2023)		
			Criteria	Score	Comment
			Woodland vertical structure	3	Three or more storeys across all survey plots, or a complex woodland.
			Veteran trees	1	No veteran trees recorded.
			Amount of dead wood	2	Between 25% and 50% of all survey plots within the woodland parcel have deadwood, such as standing deadwood, large dead branches and or stems, stubs and stumps, or an abundance of small cavities.
			Woodland disturbance	2	Less than 1 hectare in total of nutrient enrichment across woodland area and or less than 20% of woodland area has damaged ground.
			Total	33	
Lowland mixed deciduous woodland Habitat Code: w1f	6.13	Good	Age distribution of trees	3	Three age classes present.
			Wild, domestic and feral herbivore damage	3	No significant browsing damage evident in woodland.
			Invasive plant species	1	Dense Cherry Laurel stands occasional.
			Number of native tree species	3	Five or more native tree or shrub species found across woodland parcel.
			Cover of native tree and shrub species	3	>80% of canopy trees and >80% of understory shrubs are native.
			Open space within woodland	3	10 - 20% of woodland has areas of temporary open space.
			Woodland regeneration	3	All three classes present in woodland; trees 4 - 7 cm Diameter at Breast Height (DBH), saplings and seedlings or advanced coppice regrowth.
			Tree health	3	Tree mortality less than 10%, no pests or diseases and no crown dieback.
			Vegetation and ground flora	2	Recognisable woodland NVC plant community at ground layer present.
			Woodland vertical structure	3	Three or more storeys across all survey plots, or a complex woodland.
			Veteran trees	1	No veteran trees recorded.
			Amount of dead wood	3	50% of all survey plots within the woodland parcel have deadwood, such as standing deadwood, large dead branches and or stems, branch stubs and stumps, or an abundance of small cavities.
			Woodland disturbance	2	Less than 1 hectare in total of nutrient enrichment across woodland area and or less than 20% of woodland area has damaged ground.
			Total	33	
Lowland mixed deciduous woodland Habitat Code: w1f	6.14	Moderate	Age distribution of trees	3	Three age classes present.
			Wild, domestic and feral herbivore damage	2	Evidence of significant browsing pressure is present in 40% or less of whole woodland.
			Invasive plant species	1	Rhododendron Cherry Laurel and a Bamboo sp. present.
			Number of native tree species	3	Five or more native tree or shrub species found across woodland parcel.
			Cover of native tree and shrub species	3	>80% of canopy trees and >80% of understory shrubs are native.
			Open space within woodland	3	10 - 20% of woodland has areas of temporary open space.
			Woodland regeneration	3	All three classes present in woodland; trees 4 - 7 cm Diameter at Breast Height (DBH), saplings and seedlings or advanced coppice regrowth.
			Tree health	3	Tree mortality less than 10%, no pests or diseases and no crown dieback.
			Vegetation and ground flora	2	Recognisable woodland NVC plant community at ground layer present.

Habitat	Compartment number	Condition	Justification (Natural England, 2023)		
			Criteria	Score	Comment
			Woodland vertical structure	3	Three or more storeys across all survey plots, or a complex woodland.
			Veteran trees	2	Some trees with veteran features recorded.
			Amount of dead wood	2	Between 25% and 50% of all survey plots within the woodland parcel have deadwood, such as standing deadwood, large dead branches and or stems, stubs and stumps, or an abundance of small cavities.
			Woodland disturbance	2	Less than 1 hectare in total of nutrient enrichment across woodland area and or less than 20% of woodland area has damaged ground.
			Total	32	
Lowland mixed deciduous woodland Habitat Code: w1f	6.15	Moderate	Age distribution of trees	3	Three age classes present.
			Wild, domestic and feral herbivore damage	3	No significant browsing damage evident in woodland.
			Invasive plant species	1	Cherry Laurel and a Bamboo sp. present.
			Number of native tree species	3	Five or more native tree or shrub species found across woodland parcel.
			Cover of native tree and shrub species	3	>80% of canopy trees and >80% of understory shrubs are native.
			Open space within woodland	3	10 - 20% of woodland has areas of temporary open space.
			Woodland regeneration	3	All three classes present in woodland; trees 4 - 7 cm Diameter at Breast Height (DBH), saplings and seedlings or advanced coppice regrowth.
			Tree health	3	Tree mortality less than 10%, no pests or diseases and no crown dieback.
			Vegetation and ground flora	2	Recognisable woodland NVC plant community at ground layer present.
			Woodland vertical structure	3	Three or more storeys across all survey plots, or a complex woodland.
			Veteran trees	1	No veteran trees recorded.
			Amount of dead wood	2	Between 25% and 50% of all survey plots within the woodland parcel have deadwood, such as standing deadwood, large dead branches and or stems, stubs and stumps, or an abundance of small cavities.
			Woodland disturbance	2	Less than 1 hectare in total of nutrient enrichment across woodland area and or less than 20% of woodland area has damaged ground.
			Total	32	
Lowland mixed deciduous woodland Habitat Code: w1f	6.16	Moderate	Age distribution of trees	3	Three age classes present.
			Wild, domestic and feral herbivore damage	3	No significant browsing damage evident in woodland.
			Invasive plant species	1	Cherry Laurel and Variegated Yellow Archangel present.
			Number of native tree species	3	Five or more native tree or shrub species found across woodland parcel.
			Cover of native tree and shrub species	3	>80% of canopy trees and >80% of understory shrubs are native.
			Open space within woodland	3	10 - 20% of woodland has areas of temporary open space.
			Woodland regeneration	3	All three classes present in woodland; trees 4 - 7 cm Diameter at Breast Height (DBH), saplings and seedlings or advanced coppice regrowth.
			Tree health	3	Tree mortality less than 10%, no pests or diseases and no crown dieback.

Habitat	Compartment number	Condition	Justification (Natural England, 2023)		
			Criteria	Score	Comment
			Vegetation and ground flora	3	Recognisable NVC plant community at ground layer present, strongly characterised by ancient woodland flora specialists.
			Woodland vertical structure	2	Two storeys across woodland.
			Veteran trees	1	No veteran trees recorded.
			Amount of dead wood	2	Between 25% and 50% of all survey plots within the woodland parcel have deadwood, such as standing deadwood, large dead branches and or stems, stubs and stumps, or an abundance of small cavities.
			Woodland disturbance	2	Less than 1 hectare in total of nutrient enrichment across woodland area and or less than 20% of woodland area has damaged ground.
			Total	32	
Lowland mixed deciduous woodland Habitat Code: w1f	6.17	Moderate	Age distribution of trees	3	Three age classes present.
			Wild, domestic and feral herbivore damage	3	No significant browsing damage evident in woodland.
			Invasive plant species	1	Cherry Laurel frequently recorded across woodland.
			Number of native tree species	3	Five or more native tree or shrub species found across woodland parcel.
			Cover of native tree and shrub species	3	>80% of canopy trees and >80% of understory shrubs are native.
			Open space within woodland	2	21 - 40% of woodland has areas of temporary open space.
			Woodland regeneration	3	All three classes present in woodland; trees 4 - 7 cm Diameter at Breast Height (DBH), saplings and seedlings or advanced coppice regrowth.
			Tree health	3	Tree mortality less than 10%, no pests or diseases and no crown dieback.
			Vegetation and ground flora	2	Recognisable woodland NVC plant community at ground layer present.
			Woodland vertical structure	2	Two storeys across woodland.
			Veteran trees	1	No veteran trees recorded.
			Amount of dead wood	2	Between 25% and 50% of all survey plots within the woodland parcel have deadwood, such as standing deadwood, large dead branches and or stems, stubs and stumps, or an abundance of small cavities.
			Woodland disturbance	3	No nutrient enrichment or damaged ground evident.
			Total	31	
Lowland mixed deciduous woodland Habitat Code: w1f	6.18	Moderate	Age distribution of trees	3	Three age classes present.
			Wild, domestic and feral herbivore damage	2	Evidence of significant browsing pressure is present in 40% or less of whole woodland.
			Invasive plant species	1	Cherry Laurel locally abundant.
			Number of native tree species	3	Five or more native tree or shrub species found across woodland parcel.
			Cover of native tree and shrub species	3	>80% of canopy trees and >80% of understory shrubs are native.
			Open space within woodland	2	21 - 40% of woodland has areas of temporary open space.
			Woodland regeneration	3	All three classes present in woodland; trees 4 - 7 cm Diameter at Breast Height (DBH), saplings and seedlings or advanced coppice regrowth.
			Tree health	1	Some dieback observed in ash.

Habitat	Compartment number	Condition	Justification (Natural England, 2023)		
			Criteria	Score	Comment
			Vegetation and ground flora	2	Between 25% and 50% of all survey plots within the woodland parcel have deadwood, such as standing deadwood, large dead branches and or stems, stubs and stumps, or an abundance of small cavities.
			Woodland vertical structure	3	No nutrient enrichment or damaged ground evident.
			Veteran trees	1	No veteran trees recorded.
			Amount of dead wood	2	Between 25% and 50% of all survey plots within the woodland parcel have deadwood, such as standing deadwood, large dead branches and or stems, stubs and stumps, or an abundance of small cavities.
			Woodland disturbance	2	Less than 1 hectare in total of nutrient enrichment across woodland area and or less than 20% of woodland area has damaged ground.
			Total	28	
Lowland heathland Habitat Code: h1a	7.1	Poor	The heathland is a good representation of the habitat type it has been identified as, based on its UKHab description - the appearance and composition of the vegetation closely matches the characteristics of the specific heathland habitat type. Indicator shrubs, grasses, forbs and lower (non-vascular) plants listed by UKHab for the specific heathland habitat type are consistently present. Note - this criterion is essential for achieving Good condition.	Fail	Ling is locally frequent but hawthorn scrub was recorded frequently and is competing for space.
			There are at least two dwarf shrub species Frequent1, and cover of dwarf shrubs is between 25-75% for lowland heathland, 50-75% for upland dry heath, or >20% for upland wet heath. Note - this criterion is essential for achieving Good condition.	Fail	No comments.
			All heather Calluna vulgaris age-classes (pioneer, degenerate and mature) present with at least 10% pioneer heather in the lowlands or at least 10% degenerate or mature in the uplands. Note - this criterion is essential for achieving Good condition.	Fail	No comments.
			Unshaded bare ground is between 1-10%. Note - this criterion is essential for achieving Good condition.	Pass	No comments.
			There is an absence of invasive non-native plant species listed on Schedule 9 of WCA and shallon Gaultheria shallon. Note - this criterion is essential for achieving Good condition.	Pass	No comments.
			No signs of disturbance of sensitive areas, including managed burns.	Pass	No comments.
			No more than 33% of heather shoots have been recently grazed, or flowering heather plants are at least frequent in autumn.	Pass	No comments.
			The canopy cover of scattered trees and or scrub (not including gorse Ulex spp.) is: <ul style="list-style-type: none">less than 20% for upland heaths;less than 15% for lowland dry heaths; andless than 10% for lowland wet heaths.	Fail	No comments.
			Total gorse cover is less than 50%, with common gorse Ulex europaeus less than 25%.	Pass	No comments.
			The cover of Bracken Pteridium aquilinum is less than 5%.	Fail	No comments.
Lowland heathland Habitat Code: h1a	7.2	Moderate	The heathland is a good representation of the habitat type it has been identified as, based on its UKHab description - the appearance and composition of the vegetation closely matches the characteristics of the specific heathland habitat type. Indicator shrubs, grasses, forbs and lower (non-vascular) plants listed by UKHab for the specific heathland habitat type are consistently present. Note - this criterion is essential for achieving Good condition.	Fail	No comments.

Habitat	Compartment number	Condition	Justification (Natural England, 2023)		
			Criteria	Score	Comment
			There are at least two dwarf shrub species Frequent1, and cover of dwarf shrubs is between 25-75% for lowland heathland, 50-75% for upland dry heath, or >20% for upland wet heath. Note - this criterion is essential for achieving Good condition.	Fail	No comments.
			All heather Calluna vulgaris age-classes (pioneer, degenerate and mature) present with at least 10% pioneer heather in the lowlands or at least 10% degenerate or mature in the uplands. Note - this criterion is essential for achieving Good condition.	Pass	No comments.
			Unshaded bare ground is between 1-10%. Note - this criterion is essential for achieving Good condition.	Pass	No comments.
			There is an absence of invasive non-native plant species listed on Schedule 9 of WCA and shallon Gaultheria shallon. Note - this criterion is essential for achieving Good condition.	Pass	No comments.
			No signs of disturbance of sensitive areas, including managed burns.	Pass	No comments.
			No more than 33% of heather shoots have been recently grazed, or flowering heather plants are at least frequent in autumn.	Pass	No comments.
			The canopy cover of scattered trees and or scrub (not including gorse Ulex spp.) is: <ul style="list-style-type: none">less than 20% for upland heaths;less than 15% for lowland dry heaths; andless than 10% for lowland wet heaths.	Fail	Dense areas of scrub >50%.
			Total gorse cover is less than 50%, with common gorse Ulex europaeus less than 25%.	Pass	No comments.
			The cover of Bracken Pteridium aquilinum is less than 5%.	Fail	No comments.
			No signs of any damaging activities or contamination to the habitat such as: artificial drains, peat extraction, silt, leachate or eutrophication.	Pass	No comments.
Lowland heathland Habitat Code: h1a	7.3	Poor	The heathland is a good representation of the habitat type it has been identified as, based on its UKHab description - the appearance and composition of the vegetation closely matches the characteristics of the specific heathland habitat type. Indicator shrubs, grasses, forbs and lower (non-vascular) plants listed by UKHab for the specific heathland habitat type are consistently present. Note - this criterion is essential for achieving Good condition.	Fail	No comments.
			There are at least two dwarf shrub species Frequent1, and cover of dwarf shrubs is between 25-75% for lowland heathland, 50-75% for upland dry heath, or >20% for upland wet heath. Note - this criterion is essential for achieving Good condition.	Fail	Only Ling recorded and it's only locally abundant.
			All heather Calluna vulgaris age-classes (pioneer, degenerate and mature) present with at least 10% pioneer heather in the lowlands or at least 10% degenerate or mature in the uplands. Note - this criterion is essential for achieving Good condition.	Fail	No comments.
			Unshaded bare ground is between 1-10%. Note - this criterion is essential for achieving Good condition.	Pass	No comments.
			There is an absence of invasive non-native plant species listed on Schedule 9 of WCA and shallon Gaultheria shallon. Note - this criterion is essential for achieving Good condition.	Pass	No comments.
			No signs of disturbance of sensitive areas, including managed burns.	Pass	No comments.
			No more than 33% of heather shoots have been recently grazed, or flowering heather plants are at least frequent in autumn.	Pass	No comments.
			The canopy cover of scattered trees and or scrub (not including gorse Ulex spp.) is: <ul style="list-style-type: none">less than 20% for upland heaths;	Fail	No comments.

Habitat	Compartment number	Condition	Justification (Natural England, 2023)		
			Criteria	Score	Comment
			<ul style="list-style-type: none">less than 15% for lowland dry heaths; andless than 10% for lowland wet heaths.		
			Total gorse cover is less than 50%, with common gorse Ulex europaeus less than 25%.	Pass	No comments.
			The cover of Bracken Pteridium aquilinum is less than 5%.	Fail	Areas of locally abundant Bracken.
			No signs of any damaging activities or contamination to the habitat such as: artificial drains, peat extraction, silt, leachate or eutrophication.	Pass	No comments.
Lowland heathland Habitat Code: h1a	7.4	Moderate	The heathland is a good representation of the habitat type it has been identified as, based on its UKHab description - the appearance and composition of the vegetation closely matches the characteristics of the specific heathland habitat type. Indicator shrubs, grasses, forbs and lower (non-vascular) plants listed by UKHab for the specific heathland habitat type are consistently present. Note - this criterion is essential for achieving Good condition.	Pass	No comments.
			There are at least two dwarf shrub species Frequent1, and cover of dwarf shrubs is between 25-75% for lowland heathland, 50-75% for upland dry heath, or >20% for upland wet heath. Note - this criterion is essential for achieving Good condition.	Fail	No comments.
			All heather Calluna vulgaris age-classes (pioneer, degenerate and mature) present with at least 10% pioneer heather in the lowlands or at least 10% degenerate or mature in the uplands. Note - this criterion is essential for achieving Good condition.	Fail	No comments.
			Unshaded bare ground is between 1-10%. Note - this criterion is essential for achieving Good condition.	Pass	No comments.
			There is an absence of invasive non-native plant species listed on Schedule 9 of WCA and shallon Gaultheria shallon. Note - this criterion is essential for achieving Good condition.	Pass	No comments.
			No signs of disturbance of sensitive areas, including managed burns.	Pass	No comments.
			No more than 33% of heather shoots have been recently grazed, or flowering heather plants are at least frequent in autumn.	Pass	No comments.
			The canopy cover of scattered trees and or scrub (not including gorse Ulex spp.) is: <ul style="list-style-type: none">less than 20% for upland heaths;less than 15% for lowland dry heaths; andless than 10% for lowland wet heaths.	Pass	No comments.
			Total gorse cover is less than 50%, with common gorse Ulex europaeus less than 25%.	Pass	No comments.
			The cover of Bracken Pteridium aquilinum is less than 5%.	Pass	No comments.
Hawthorn scrub Habitat Code: g3c	8.1	Moderate	The scrub is a good representation of the habitat type it has been identified as, based on its UKHab description (where in its natural range). The appearance and composition of the vegetation closely matches the characteristics of the specific scrub type. At least 80% of scrub is native, and there are at least three native woody species, with no single species comprising more than 75% of the cover (except hazel Corylus avellana, common juniper Juniperus communis, sea buckthorn Hippophae rhamnoides or box Buxus sempervirens, which can be up to 100% cover).	Fail	Hawthorn is dominant.
			Seedlings, saplings, young shrubs and mature (or ancient or veteran2) shrubs are all present.	Fail	Areas of younger scrub edges not recorded.
			There is an absence of invasive non-native plant species (as listed on Schedule 9 of WCA) and species indicative of sub-optimal condition make up less than 5% of ground cover.	Pass	No comments.

Habitat	Compartment number	Condition	Justification (Natural England, 2023)		
			Criteria	Score	Comment
			The scrub has a well-developed edge with scattered scrub and tall grassland and or forbs present between the scrub and adjacent habitat.	Pass	No comments.
			There are clearings, glades or rides present within the scrub, providing sheltered edges.	Fail	No clearings or glades recorded within the scrub.
Hawthorn scrub Habitat Code: g3c	8.2	Moderate	The scrub is a good representation of the habitat type it has been identified as, based on its UKHab description (where in its natural range). The appearance and composition of the vegetation closely matches the characteristics of the specific scrub type. At least 80% of scrub is native, and there are at least three native woody species, with no single species comprising more than 75% of the cover (except hazel <i>Corylus avellana</i> , common juniper <i>Juniperus communis</i> , sea buckthorn <i>Hippophae rhamnoides</i> or box <i>Buxus sempervirens</i> , which can be up to 100% cover).	Fail	Hawthorn is dominant.
			Seedlings, saplings, young shrubs and mature (or ancient or veteran2) shrubs are all present.	Pass	No comments.
			There is an absence of invasive non-native plant species (as listed on Schedule 9 of WCA) and species indicative of sub-optimal condition make up less than 5% of ground cover.	Pass	No non-native plants or animals recorded.
			The scrub has a well-developed edge with scattered scrub and tall grassland and or forbs present between the scrub and adjacent habitat.	Pass	No comments.
			There are clearings, glades or rides present within the scrub, providing sheltered edges.	Pass	Clearings with small areas of grassland/heathland mosaic recorded within the scrub.
Standing open water (ponds) Habitat Code: r1	9.1	Moderate	The pond is of good water quality, with clear water (low turbidity) indicating no obvious signs of pollution. Turbidity is acceptable if the pond is grazed by livestock.	Fail	Water is turbid.
			There is semi-natural habitat (moderate distinctiveness or above) completely surrounding the pond, for at least 10 m from the pond edge for its entire perimeter.	Pass	No comments.
			Less than 10% of the water surface is covered with duckweed <i>Lemna</i> spp. or filamentous algae.	Pass	No comments.
			The pond is not artificially connected to other waterbodies, e.g. agricultural ditches or artificial pipework.	Pass	No comments.
			Pond water levels can fluctuate naturally throughout the year. No obvious artificial dams, pumps or pipework.	Pass	No comments.
			There is an absence of listed non-native plant and animal species.	Pass	No non-native plants or animals recorded.
			The pond is not artificially stocked with fish. If the pond naturally contains fish, it is a native fish assemblage at low densities.	Unknown	No comments.
			Emergent, submerged or floating plants (excluding duckweed) cover at least 50% of the pond area which is less than 3 m deep.	N/a	Criteria not applicable with woodland ponds.
			The pond surface is no more than 50% shaded by adjacent trees and scrub.	N/a	Criteria not applicable with woodland ponds.
Standing open water (ponds) Habitat Code: r1	9.2	Poor	The pond is of good water quality, with clear water (low turbidity) indicating no obvious signs of pollution. Turbidity is acceptable if the pond is grazed by livestock.	Fail	Turbid water.
			There is semi-natural habitat (moderate distinctiveness or above) completely surrounding the pond, for at least 10 m from the pond edge for its entire perimeter.	Fail	A road is present within 10m of the western edge.
			Less than 10% of the water surface is covered with duckweed <i>Lemna</i> spp. or filamentous algae.	Pass	No comments.
			The pond is not artificially connected to other waterbodies, e.g. agricultural ditches or artificial pipework.	Pass	No comments.
			Pond water levels can fluctuate naturally throughout the year. No obvious artificial dams, pumps or pipework.	Pass	No comments.
			There is an absence of listed non-native plant and animal species.	Pass	No non-native plants or animals recorded.
			The pond is not artificially stocked with fish. If the pond naturally contains fish, it is a native fish assemblage at low densities.	Unknown	No comments.
			Emergent, submerged or floating plants (excluding duckweed) cover at least 50% of the pond area which is less than 3 m deep.	N/a	Criteria not applicable with woodland ponds.
			The pond surface is no more than 50% shaded by adjacent trees and scrub.	N/a	Criteria not applicable with woodland ponds.

Habitat	Compartment number	Condition	Justification (Natural England, 2023)		
			Criteria	Score	Comment
Standing open water (ponds) Habitat Code: r1	9.3	Poor	The pond is of good water quality, with clear water (low turbidity) indicating no obvious signs of pollution. Turbidity is acceptable if the pond is grazed by livestock.	Unknown	Access to water not achieved due to dense surrounding vegetation.
			There is semi-natural habitat (moderate distinctiveness or above) completely surrounding the pond, for at least 10 m from the pond edge for its entire perimeter.	Fail	A road is present within 10m of the western edge.
			Less than 10% of the water surface is covered with duckweed Lemna spp. or filamentous algae.	Unknown	Access to water not achieved due to dense surrounding vegetation.
			The pond is not artificially connected to other waterbodies, e.g. agricultural ditches or artificial pipework.	Fail	A connecting ditch line is present to the south of the pond.
			Pond water levels can fluctuate naturally throughout the year. No obvious artificial dams, pumps or pipework.	Pass	No comments.
			There is an absence of listed non-native plant and animal species.	Unknown	Access to water not achieved due to dense surrounding vegetation.
			The pond is not artificially stocked with fish. If the pond naturally contains fish, it is a native fish assemblage at low densities.	Unknown	Access to water not achieved due to dense surrounding vegetation.
			Emergent, submerged or floating plants (excluding duckweed) cover at least 50% of the pond area which is less than 3 m deep.	N/a	Criteria not applicable with woodland ponds.
			The pond surface is no more than 50% shaded by adjacent trees and scrub.	N/a	Criteria not applicable with woodland ponds.
Standing open water (ponds) Habitat Code: r1	9.4	Moderate	The pond is of good water quality, with clear water (low turbidity) indicating no obvious signs of pollution. Turbidity is acceptable if the pond is grazed by livestock.	Fail	No water present.
			There is semi-natural habitat (moderate distinctiveness or above) completely surrounding the pond, for at least 10 m from the pond edge for its entire perimeter.	Pass	No comments.
			Less than 10% of the water surface is covered with duckweed Lemna spp. or filamentous algae.	N/a	No water present.
			The pond is not artificially connected to other waterbodies, e.g. agricultural ditches or artificial pipework.	Pass	No comments.
			Pond water levels can fluctuate naturally throughout the year. No obvious artificial dams, pumps or pipework.	Pass	No comments.
			There is an absence of listed non-native plant and animal species.	Pass	No non-native plants recorded.
			The pond is not artificially stocked with fish. If the pond naturally contains fish, it is a native fish assemblage at low densities.	Pass	No water present.
			Emergent, submerged or floating plants (excluding duckweed) cover at least 50% of the pond area which is less than 3 m deep.	N/a	Criteria not applicable with woodland ponds.
			The pond surface is no more than 50% shaded by adjacent trees and scrub.	N/a	Criteria not applicable with woodland ponds.
Standing open water (ponds) Habitat Code: r1	9.5	Poor	The pond is of good water quality, with clear water (low turbidity) indicating no obvious signs of pollution. Turbidity is acceptable if the pond is grazed by livestock.	Pass	No comments.
			There is semi-natural habitat (moderate distinctiveness or above) completely surrounding the pond, for at least 10 m from the pond edge for its entire perimeter.	Fail	A road is present within 10m of the western edge.
			Less than 10% of the water surface is covered with duckweed Lemna spp. or filamentous algae.	Pass	No comments.
			The pond is not artificially connected to other waterbodies, e.g. agricultural ditches or artificial pipework.	Unknown	Edges of the pond not fully accessible.
			Pond water levels can fluctuate naturally throughout the year. No obvious artificial dams, pumps or pipework.	Pass	No comments.
			There is an absence of listed non-native plant and animal species.	Fail	A non-native iris species present and an anecdotal record of a terrapin was provided by a local resident.
			The pond is not artificially stocked with fish. If the pond naturally contains fish, it is a native fish assemblage at low densities.	Unknown	Fish not recorded but presence is possible.
			Emergent, submerged or floating plants (excluding duckweed) cover at least 50% of the pond area which is less than 3 m deep.	Fail	No comments.
			The pond surface is no more than 50% shaded by adjacent trees and scrub.	Fail	Pond is heavily shaded by neighbouring trees.

Habitat	Compartment number	Condition	Justification (Natural England, 2023)		
			Criteria	Score	Comment
Standing open water (ponds) Habitat Code: r1	9.6	Moderate	The pond is of good water quality, with clear water (low turbidity) indicating no obvious signs of pollution. Turbidity is acceptable if the pond is grazed by livestock.	Fail	Turbid water present.
			There is semi-natural habitat (moderate distinctiveness or above) completely surrounding the pond, for at least 10 m from the pond edge for its entire perimeter.	Pass	No comments.
			Less than 10% of the water surface is covered with duckweed Lemna spp. or filamentous algae.	Pass	No comments.
			The pond is not artificially connected to other waterbodies, e.g. agricultural ditches or artificial pipework.	Pass	No comments.
			Pond water levels can fluctuate naturally throughout the year. No obvious artificial dams, pumps or pipework.	Pass	No comments.
			There is an absence of listed non-native plant and animal species.	Pass	No non-native plants or animals recorded.
			The pond is not artificially stocked with fish. If the pond naturally contains fish, it is a native fish assemblage at low densities.	Unknown.	No comments.
			Emergent, submerged or floating plants (excluding duckweed) cover at least 50% of the pond area which is less than 3 m deep.	N/a	Criteria not applicable with woodland ponds.
			The pond surface is no more than 50% shaded by adjacent trees and scrub.	N/a	Criteria not applicable with woodland ponds.
Standing open water (ponds) Habitat Code: r1	9.7	Poor	The pond is of good water quality, with clear water (low turbidity) indicating no obvious signs of pollution. Turbidity is acceptable if the pond is grazed by livestock.	Fail	Turbid water.
			There is semi-natural habitat (moderate distinctiveness or above) completely surrounding the pond, for at least 10 m from the pond edge for its entire perimeter.	Fail	The Bell public house and car park is located within 10m of the southern boundary of this pond.
			Less than 10% of the water surface is covered with duckweed Lemna spp. or filamentous algae.	Unknown.	Full access to the pond difficult due to dense vegetation.
			The pond is not artificially connected to other waterbodies, e.g. agricultural ditches or artificial pipework.	Unknown.	Full access to the pond difficult due to dense vegetation.
			Pond water levels can fluctuate naturally throughout the year. No obvious artificial dams, pumps or pipework.	Unknown.	Full access to the pond difficult due to dense vegetation.
			There is an absence of listed non-native plant and animal species.	Unknown.	Full access to the pond difficult due to dense vegetation.
			The pond is not artificially stocked with fish. If the pond naturally contains fish, it is a native fish assemblage at low densities.	Unknown.	Full access to the pond difficult due to dense vegetation.
			Emergent, submerged or floating plants (excluding duckweed) cover at least 50% of the pond area which is less than 3 m deep.	Fail	No significant macrophyte cover based on visual assessment from southern edge.
			The pond surface is no more than 50% shaded by adjacent trees and scrub.	Fail	The pond is heavily shaded by woodland habitat.
Standing open water (ponds) Habitat Code: r1	9.8	Moderate	The pond is of good water quality, with clear water (low turbidity) indicating no obvious signs of pollution. Turbidity is acceptable if the pond is grazed by livestock.	Fail	Turbid shallow water present with no aquatic vegetation.
			There is semi-natural habitat (moderate distinctiveness or above) completely surrounding the pond, for at least 10 m from the pond edge for its entire perimeter.	Pass	No comments.
			Less than 10% of the water surface is covered with duckweed Lemna spp. or filamentous algae.	Pass	No comments.
			The pond is not artificially connected to other waterbodies, e.g. agricultural ditches or artificial pipework.	Pass	No ditches are artificial pipework recorded.
			Pond water levels can fluctuate naturally throughout the year. No obvious artificial dams, pumps or pipework.	Pass	No comments.
			There is an absence of listed non-native plant and animal species.	Pass	No non-native plants or animals recorded.
			The pond is not artificially stocked with fish. If the pond naturally contains fish, it is a native fish assemblage at low densities.	Pass	No fish recorded.
			Emergent, submerged or floating plants (excluding duckweed) cover at least 50% of the pond area which is less than 3 m deep.	N/a	Criteria not applicable with woodland ponds..
			The pond surface is no more than 50% shaded by adjacent trees and scrub.	N/a	Criteria not applicable with woodland ponds.
Standing open water (ponds)	9.9		The pond is of good water quality, with clear water (low turbidity) indicating no obvious signs of pollution. Turbidity is acceptable if the pond is grazed by livestock.	Fail	Turbid shallow water present with some duckweed present on the surface. Signs of trampling along the edges.

Habitat	Compartment number	Condition	Justification (Natural England, 2023)		
			Criteria	Score	Comment
Habitat Code: r1			There is semi-natural habitat (moderate distinctiveness or above) completely surrounding the pond, for at least 10 m from the pond edge for its entire perimeter.	Pass	No comments.
			Less than 10% of the water surface is covered with duckweed Lemna spp. or filamentous algae.	Pass	Yes but some duckweed present.
			The pond is not artificially connected to other waterbodies, e.g. agricultural ditches or artificial pipework.	Pass	No ditches are artificial pipework recorded.
			Pond water levels can fluctuate naturally throughout the year. No obvious artificial dams, pumps or pipework.	Pass	No comments.
			There is an absence of listed non-native plant and animal species.	Pass	No non-native plants or animals recorded.
			The pond is not artificially stocked with fish. If the pond naturally contains fish, it is a native fish assemblage at low densities.	Pass	No fish recorded.
			Emergent, submerged or floating plants (excluding duckweed) cover at least 50% of the pond area which is less than 3 m deep.	N/a	Criteria not applicable with woodland ponds.
			The pond surface is no more than 50% shaded by adjacent trees and scrub.	N/a	Criteria not applicable with woodland ponds.
Line of trees Habitat Code: w1g6	10.1		At least 70% of trees are native species.	Pass	Native species dominates line of trees.
			Tree canopy is predominantly continuous with gaps in canopy cover making up <10% of total area and no individual gap being >5 m wide.	Fail	Large gaps present along line of trees.
			One or more trees has veteran features and or natural ecological niches for vertebrates and invertebrates, such as presence of standing and attached deadwood, cavities, ivy or loose bark.	Pass	No comments.
			There is an undisturbed naturally-vegetated strip of at least 6 m on both sides to protect the line of trees from farming and other human activities (excluding grazing). Where veteran trees are present, root protection areas should follow standing advice.	Fail	Strip of grassland mown each side
			At least 95% of the trees are in a healthy condition (deadwood or veteran features valuable for wildlife are excluded from this). There is little or no evidence of an adverse impact on tree health by damage from livestock or wild animals, pests or diseases, or human activity.	Pass	The trees are in a healthy condition.
Line of trees Habitat Code: w1g6	10.2		At least 70% of trees are native species.	Pass	Native species dominates line of trees.
			Tree canopy is predominantly continuous with gaps in canopy cover making up <10% of total area and no individual gap being >5 m wide.	Fail	The tree line is not continuous, some gaps present.
			One or more trees has veteran features and or natural ecological niches for vertebrates and invertebrates, such as presence of standing and attached deadwood, cavities, ivy or loose bark.	Fail	No veteran or ecological niches features recorded.
			There is an undisturbed naturally-vegetated strip of at least 6 m on both sides to protect the line of trees from farming and other human activities (excluding grazing). Where veteran trees are present, root protection areas should follow standing advice.	Pass	No comments.
			At least 95% of the trees are in a healthy condition (deadwood or veteran features valuable for wildlife are excluded from this). There is little or no evidence of an adverse impact on tree health by damage from livestock or wild animals, pests or diseases, or human activity.	Pass	The trees are in a healthy condition.
Line of trees Habitat Code: w1g6	10.3		At least 70% of trees are native species.	Pass	Native species dominates line of trees.
			Tree canopy is predominantly continuous with gaps in canopy cover making up <10% of total area and no individual gap being >5 m wide.	Fail	The tree line is not continuous, some gaps present.
			One or more trees has veteran features and or natural ecological niches for vertebrates and invertebrates, such as presence of standing and attached deadwood, cavities, ivy or loose bark.	Fail	No veteran or ecological niches features recorded.
			There is an undisturbed naturally-vegetated strip of at least 6 m on both sides to protect the line of trees from farming and other human activities (excluding grazing). Where veteran trees are present, root protection areas should follow standing advice.	Pass	No comments.

Habitat	Compartment number	Condition	Justification (Natural England, 2023)		
			Criteria	Score	Comment
			At least 95% of the trees are in a healthy condition (deadwood or veteran features valuable for wildlife are excluded from this). There is little or no evidence of an adverse impact on tree health by damage from livestock or wild animals, pests or diseases, or human activity.	Pass	The trees are in a healthy condition.
Line of trees Habitat Code: w1g6	10.4		At least 70% of trees are native species.	Pass	Native species dominates line of trees.
			Tree canopy is predominantly continuous with gaps in canopy cover making up <10% of total area and no individual gap being >5 m wide.	Pass	No gaps recorded.
			One or more trees has veteran features and or natural ecological niches for vertebrates and invertebrates, such as presence of standing and attached deadwood, cavities, ivy or loose bark.	Fail	No veteran or ecological niches features recorded.
			There is an undisturbed naturally-vegetated strip of at least 6 m on both sides to protect the line of trees from farming and other human activities (excluding grazing). Where veteran trees are present, root protection areas should follow standing advice.	Fail	Road within 6m of western edge of trees.
			At least 95% of the trees are in a healthy condition (deadwood or veteran features valuable for wildlife are excluded from this). There is little or no evidence of an adverse impact on tree health by damage from livestock or wild animals, pests or diseases, or human activity.	Pass	The trees are in a healthy condition.

Appendix 6: Relevant legislation

Legislation

Metropolitan Commons and Metropolitan Commons (Banstead) Supplementary Act 1866

This Act covers the four commons; Banstead Downs, Banstead Heath, Burgh Heath and Park Downs. It gives power to the Banstead Commons Conservators to frame byelaws for the commons. The Board of Conservators was set up in 1893. There are eight members on the board, two appointed by the 'owners of the soil', which today is Reigate and Banstead Borough Council, and six elected by 'the vestry of the Parish of Banstead' which today is Reigate and Banstead Borough Council. Conservators serve a term of three years.

The election of new Conservators is managed by Reigate and Banstead Borough Council Democratic Services. The process commences in December and elections take place at the March Executive Meeting each year.

Conservation of Habitats and Species Regulations 2017 (as amended)

Provides for the protection of Natura 2000 sites (SACs, SPAs and Ramsar sites), European Protected Species and habitats. European Protected Species are protected from:

- Deliberate capture, injury or killing
- Deliberate disturbance of a European Protected Species, such that it impairs their ability to breed, reproduce or rear their young, hibernate or migrate or significantly affect their local distribution or abundance
- Deliberately take or destroy effect
- Damage or destroy a breeding site or resting place.
- Keep, transport, sell or exchange any live, dead or part of a European Protected Species

European Protected Species include, but are not limited to:

- Great Crested Newt
- All bat species
- Hazel Dormouse

Wildlife and Countryside Act 1981 (as amended)

Key piece of legislation consolidating existing wildlife legislation to incorporate the requirements of the Bern Convention and Birds Directive. It includes additional protection measures for species listed under the Conservation of Habitats and Species Regulations 2017 (as amended) and includes a list of species protected under the Act. It also provides for the designation and protection of Sites of Special Scientific Interest (SSSI).

Development which would adversely affect a SSSI is not acceptable except only in special cases, where the importance of a development outweighs the impact on the SSSI when planning conditions or obligations would be used to mitigate the impact. Developments likely to impact on a SSSI will likely require an Environmental Impact Assessment (EIA).

Further information on specific legislation relating to species protected under the Wildlife and Countryside Act 1981 (as amended) is detailed below, under Protection of Protected Species and Habitats.

Environment Act (2021)

The Environment Act (2021) makes a provision for biodiversity net gain to be a condition of planning permission in England. Planning applications will need to demonstrate a 10% biodiversity net gain can be met.

Countryside and Right of Way Act 2000

Amends and strengthens the Wildlife and Countryside Act 1981 (as amended). It also details habitats and species for which conservation measures should be promoted.

Natural Environment and Rural Communities Act 2006

Section 40 of the Act places a duty on local planning authorities to conserve and enhance biodiversity in England whilst carrying out their normal functions. Section 41 comprises a list of Habitats of Principal Importance (HPIs) and Species of Principal Importance (SPIs) which should be considered.

The LPA will need to have particular regard to any relevant local nature recovery strategies, and any relevant species conservation strategy or protected site strategy prepared by Natural England.

Hedgerows Regulations 1997

Under these regulations it is an offence to intentionally or recklessly remove, or cause or permits another person to remove, a hedgerow. Important hedgerows are defined in Section 4 of the Regulations. This includes hedgerows that have existed for over 30 years or satisfies at least one criteria listed in Part II of Schedule 1.

Wild Mammals (Protection) Act 1996

Under this act wild mammals are protected from the intentional unnecessary suffering by crushing and asphyxiation.

Biodiversity Opportunity Areas (BOAs)

In order to assist in delivering the government's Biodiversity 2020 strategy, the Surrey Nature Partnership has identified seven BOAs where improved habitat management, habitat restoration and recreation of HPIs is the key focus to enhancing the connectivity of habitats for SPIs to deliver biodiversity objectives at a landscape scale. The location of these is presented in the South East Biodiversity Strategy's website. The project promotes a collaborative approach across a number of regional and local organisations.

Management of sites within or adjacent to BOAs should be designed in consideration of the BOA objectives, which are provided at:

- <https://surreynaturepartnership.org.uk/our-work/>

Protection of protected species and habitats

Amphibians

Great Crested Newt is protected under the Conservation of Habitats and Species Regulations 2017 (as amended). They are also afforded additional protection under the Wildlife and Countryside Act 1981 (as amended).

Great Crested Newt is also a SPI.

Reptiles

Smooth Snake and Sand Lizard are protected under the Conservation of Habitats and Species Regulations 2017 (as amended). They are afforded additional protection under the Wildlife and Countryside Act 1981 (as amended).

Adder, Grass Snake, Common Lizard and Slow-worm are all protected from killing and injury under the Wildlife and Countryside Act 1981 (as amended). All UK reptile species are SPIs.

Birds

All wild birds are protected under the Wildlife and Countryside Act 1981 (as amended). This includes damage and destruction of their nests whilst in use, or construction. Species listed under Schedule 1 of the Act, such as Barn Owl, are afforded protection from disturbance during the nesting season. 50 bird species are listed as SPIs.

Badger

Badger is protected under the Protection of Badgers Act 1992. Under this legislation it is an offence to kill or injure a badger; to damage, destroy or block access to a badger sett; or to disturb badger in its sett. The Act also states the conditions for the Protection of Badgers licence requirements.

Bats

All bat species are protected under the Conservation of Habitats and Species Regulations 2017 (as amended), as detailed above. Bats are further protected under the Wildlife and Countryside Act 1981 (as amended), making it an offence to:

- Deliberately or recklessly damage or destroy any structure or place which bat(s) use for shelter or protection
- Disturb bat(s) while occupying a structure or place which it uses for shelter or protection
- Obstruct access to any structure or place which they use for shelter or protection

Furthermore, seven bat species are SPIs, covered under Section 41 of the NERC Act 2006. These include western Barbastelle, Bechstein's, Noctule, Soprano Pipistrelle, Brown Long-eared, Lesser Horseshoe and Greater Horseshoe.

Hazel Dormouse

Hazel Dormouse is protected under the Conservation of Habitats and Species Regulations 2017 (as amended). It is afforded additional protection under the Wildlife and Countryside Act 1981 (as amended), including obstruction to a place of shelter or rest.

Hazel Dormouse is also a SPI.

Hedgerow

Under the Hedgerows Regulations 1997 it is against the law to remove or destroy certain hedgerows without permission from the LPA, which are also the enforcement body for offences created by the Regulations. LPA permission is normally required before removing hedges that are at least 20 m in length, more than 30 years old and contain certain plant species. The authority will assess the importance of the hedgerow using criteria set out in the regulations. The regulations **do not** apply to hedgerows within the curtilage of, or marking a boundary of the curtilage of, a dwelling house.

Hedgerow is a HPI.

Other mammals

West European Hedgehog, Harvest Mouse and Polecat are all SPIs.

Invertebrates

Fifty-six terrestrial and freshwater invertebrate species are listed under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended).

A total of 398 invertebrates are Species of Principal Importance.

Non-native invasive plant species

Schedule 9 of the Wildlife and Countryside Act 1981 (as amended) is a list of non-native plant species for which Section 14 of the Act applies. It is an offence to plant, or otherwise cause to grow in the wild species listed under Schedule 9 of the act.

Habitats of Principal Importance

Section 41 of the NERC Act 2006 details 56 HPIs, of which the following could be present in south-east England: Lowland calcareous grassland, Lowland dry acid grassland, Lowland meadows, Lowland Heathland, Open Mosaic Habitats on Previously Developed Land, Lowland fens, Lowland raised bog, Reedbeds, Lowland beech and yew woodland, Lowland mixed deciduous woodland and Wet woodland.

Impacts to HPI are of material planning consideration.

Appendix 7: Protected species and species of conservation concern desk study results (SBIC, 2023)

Records from site

Scientific name	Common Name	Habitat Regulations	WCA	Protection of Badgers Act 1992	SPI	Red data list/ nationally scarce/ nationally rare	BoCC	Axiophyte	AWI	GI	Relevant HPI
Invertebrates											
<i>Coenonympha pamphilus</i>	Small Heath				✓	✓					Heathland, Acid Grassland, Calcareous grassland
<i>Erynnis tages</i>	Dingy Skipper				✓	✓					Calcareous grassland, Mixed deciduous woodland
<i>Hesperia comma</i>	Silver-spotted Skipper		Sch 5 s9.5a			✓					Calcareous grassland
<i>Lasioglossum malachurum</i>	Sharp-collared Furrow Bee					✓					Various
<i>Lasioglossum pauxillum</i>	Lobe-spurred Furrow Bee					✓					Acid & Calcareous grassland
<i>Limenitis camilla</i>	White Admiral				✓	✓					Mixed deciduous woodland
<i>Nomada fucata</i>	Painted Nomad Bee					✓					Various
<i>Polyommatus coridon</i>	Chalk Hill Blue		Sch 5 s9.5a			✓					
<i>Pyrgus malvae</i>	Grizzled Skipper				✓	✓					Calcareous grassland, Mixed deciduous woodland
<i>Sphecodes reticulatus</i>	Reticulate Blood Bee					✓					Heathland, Acid grassland
<i>Symmorphus crassicornis</i>	A potter wasp					✓					
<i>Thecla betulae</i>	Brown Hairstreak		Sch 5 s9.5a		✓	✓					Hedgerows, Mixed deciduous woodland
Reptiles											
<i>Anguis fragilis</i>	Slow-worm		Sch 1 s9.1(killing/injuring), 9.5a		✓						Various
<i>Vipera berus</i>	Adder		Sch 5 s9.1(killing/injuring), 9.5a		✓	✓					Heathland
<i>Zootoca vivipara</i>	Common Lizard		Sch 5 s9.1(killing/injuring), 9.5a		✓						Various
Vascular plants											
<i>Ajuga chamaepitys</i>	Ground-pine		Sch 8		✓	✓		✓		✓	
<i>Calluna vulgaris</i>	Heather					✓		✓		✓	
<i>Campanula rotundifolia</i>	Harebell					✓		✓		✓	
<i>Cephalanthera damasonium</i>	White Helleborine				✓	✓		✓			
<i>Cruciata laevipes</i>	Crosswort					✓		✓			
<i>Cynoglossum officinale</i>	Hound's-tongue					✓		✓		✓	
<i>Erica cinerea</i>	Bell Heather					✓		✓		✓	
<i>Erica tetralix</i>	Cross-leaved Heath					✓		✓			
<i>Euphrasia nemorosa</i>	Common Eyebright					✓		✓		✓	
<i>Euphrasia officinalis subsp. anglica</i>	English Eyebright				✓	✓		✓		✓	
<i>Fragaria vesca</i>	Wild Strawberry					✓		✓		✓	
<i>Genista anglica</i>	Petty Whin					✓		✓		✓	
<i>Helianthemum nummularium</i>	Common Rock-rose					✓		✓		✓	
<i>Hieracium rigens</i>	Rigid Hawkweed					✓				✓	

Scientific name	Common Name	Habitat Regulations	WCA	Protection of Badgers Act 1992	SPI	Red data list/ nationally scarce/ nationally rare	BoCC	Axiophyte	AWI	GI	Relevant HPI
<i>Hieracium sabaudum</i>	Autumn Hawkweed					✓				✓	
<i>Hyacinthoides non-scripta</i>	Bluebell		Sch 8					✓	✓		
<i>Nardus stricta</i>	Mat-grass					✓		✓		✓	
<i>Oxalis acetosella</i>	Wood-sorrel					✓		✓	✓		
<i>Plantago media</i>	Hoary Plantain					✓		✓		✓	
<i>Potentilla erecta</i>	Tormentil					✓		✓		✓	
<i>Rubus britannicus</i>	A Bramble					✓					
<i>Sanicula europaea</i>	Sanicle					✓		✓	✓		
<i>Solidago virgaurea</i>	Goldenrod					✓		✓	✓	✓	
<i>Succisa pratensis</i>	Devil's-bit Scabious					✓		✓		✓	
<i>Tilia platyphyllos</i>	Large-leaved Lime					✓		✓			
<i>Veronica officinalis</i>	Heath Speedwell					✓		✓		✓	
<i>Viola canina</i>	Heath Dog-violet					✓		✓			
Invasive non-native species											
<i>Cotoneaster horizontalis</i>	Wall Cotoneaster		Sch 9 Part 2 (England & Wales only)								
<i>Crassula helmsii</i>	New Zealand Pigmyweed		Sch 9 Part 2								
<i>Lamium galeobdolon subsp. argentatum</i>	Variegated Yellow Archangel		Sch 9 Part 2 (England & Wales only)								
<i>Myriophyllum aquaticum</i>	Parrot's Feather		Sch 9 Part 2 (England & Wales only)								
<i>Reynoutria japonica</i>	Japanese Knotweed		Sch 9 Part 2								
<i>Rhododendron ponticum</i>	Rhododendron		Sch 9 Part 2 (England & Wales only)								
<i>Sciurus carolinensis</i>	Eastern Grey Squirrel		Sch 9 Part 1								Broadleaved woodland; Urban and gardens; Coniferous woodland

All records from within 1km of site

Scientific name	Common Name	Habitat Regulations ¹²	WCA ³	Protection of Badgers Act 1992	SPI ⁴	Red data list/ nationally scarce/ nationally rare ⁵	BoCC ⁶	Axiophyte ⁷	AWI ⁸	GI ⁹	Relevant HPI
Invertebrates											
<i>Acronicta psi</i>	Grey Dagger				✓						Various
<i>Andrena bimaculata</i>	Large Gorse Mining Bee					✓					Acid grassland
<i>Andrena marginata</i>	Small Scabious Mining Bee					✓					Heathland, Calcareous grassland
<i>Andrena minutuloides</i>	Plain Mini-miner					✓					Calcareous grassland, Meadows
<i>Andrena tibialis</i>	Grey-gastered Mining Bee					✓					Various
<i>Andrena varians</i>	Blackthorn Mining Bee					✓					Various
<i>Apamea remissa</i>	Dusky Brocade				✓						Various
<i>Apatura iris</i>	Purple Emperor		Sch 1 s 9.5a			✓					Mixed deciduous woodland
<i>Asilus crabroniformis</i>	Hornet Robberfly				✓						Acid grassland, Calcareous grassland, Heathland
<i>Bombus rupestris</i>	Red-tailed Cuckoo Bee					✓					Various
<i>Cheilosia barbata</i>	Parsnip Cheilosia					✓					Mixed deciduous woodland
<i>Cheilosia cynocephala</i>	Musk-thistle Cheilosia					✓					
<i>Chrysis gracillima</i>	A ruby-tailed wasp					✓					
<i>Chrysis illigeri</i>	A ruby-tailed wasp					✓					Heathland, Acid grassland
<i>Chrysotoxum elegans</i>	Variable wasp hoverfly					✓					Calcareous grassland, Meadows
<i>Coenonympha pamphilus</i>	Small Heath				✓	✓					Heathland, Acid Grassland, Calcareous grassland
<i>Cryptocephalus hypochaeridis</i>	A pot beetle					✓					Calcareous grassland
<i>Cupido minimus</i>	Small Blue		Sch 5 s9.5a		✓	✓					Calcareous grassland
<i>Ennomos fuscantaria</i>	Dusky Thorn				✓						Mixed deciduous woodland

¹ Conservation of Habitats and Species Regulations 2017

² Sch = Schedule

³ Wildlife and Countryside Act 1981, as amended

⁴ Species of Principle Importance

⁵ Species listed on the IUCN Red data list

⁶ Birds of Conservation Concern

⁷ Notable plant species

⁸ Ancient Woodland Indicator

⁹ Grassland indicator

Scientific name	Common Name	Habitat Regulations ¹²	WCA ³	Protection of Badgers Act 1992	SPI ⁴	Red data list/ nationally scarce/ nationally rare ⁵	BoCC ⁶	Axiophyte ⁷	AWI ⁸	GI ⁹	Relevant HPI
<i>Erynnis tages</i>	Dingy Skipper				✓	✓					Calcareous grassland, Mixed deciduous woodland
<i>Gymnosoma rotundatum</i>	A tachinid fly					✓					
<i>Helix (Helix) pomatia</i>	Roman Snail		Sch 5 s9.1(killing/injuring/taking), 9.2, 9.5a			✓					Calcareous grassland
<i>Hemitrichapion reflexum</i>	A clover weevil					✓					
<i>Hylaeus cornutus</i>	Spined Hylaeus					✓					Calcareous grassland, Various
<i>Hylaeus signatus</i>	Large Yellow-face Bee					✓					Calcareous grassland, Urban
<i>Lasioglossum malachurum</i>	Sharp-collared Furrow Bee					✓					Various
<i>Lasioglossum pauxillum</i>	Lobe-spurred Furrow Bee					✓					Acid & Calcareous grassland
<i>Lasioglossum xanthopus</i>	Orange-footed Furrow Bee					✓					Calcareous grassland
<i>Leptogaster guttiventris</i>	Dashed Slender Robberfly					✓					
<i>Lucanus cervus</i>	Stag Beetle		Sch 5 s9.5a		✓	✓					Various, Wood pasture & parkland
<i>Melitta tricincta</i>	Red Bartsia Blunthorn Bee					✓					Calcareous grassland (on Odontites)
<i>Microdynerus exilis</i>	Little Mason Wasp					✓					Various
<i>Myopa pellucida</i>	A Thick-headed Fly					✓					
<i>Nomada fucata</i>	Painted Nomad Bee					✓					Various
<i>Nysson trimaculatus</i>	Six-spotted Wasp-cuckoo					✓					Acid grassland, Calcareous grassland
<i>Osmia bicolor</i>	Red-tailed Mason Bee					✓					Calcareous grassland
<i>Philanthus triangulum</i>	Bee Wolf					✓					
<i>Polyommatus coridon</i>	Chalk Hill Blue		Sch 5 s9.5a			✓					
<i>Priocnemis agilis</i>	A Spider-hunting Wasp					✓					Heathland, Acid grassland, Calcareous grassland
<i>Protapion filirostre</i>	A clover weevil					✓					
<i>Pyrgus malvae</i>	Grizzled Skipper				✓	✓					Calcareous grassland, Mixed deciduous woodland
<i>Pyrrhocoris apterus</i>	Firebug					✓					Various
<i>Satyrrium w-album</i>	White-letter Hairstreak		Sch 5 s9.5a		✓	✓					Mixed deciduous woodland, Hedgerows
<i>Sciocoris (Sciocoris) cursitans</i>	Sandrunner					✓					Calcareous grassland, Acid grassland
<i>Scotopteryx chenopodiata</i>	Shaded Broad-bar				✓						Various

Scientific name	Common Name	Habitat Regulations ¹²	WCA ³	Protection of Badgers Act 1992	SPI ⁴	Red data list/ nationally scarce/ nationally rare ⁵	BoCC ⁶	Axiophyte ⁷	AWI ⁸	GI ⁹	Relevant HPI
<i>Solva marginata</i>	Drab wood-soldierfly					✓					Various (on Populus)
<i>Spilosoma lubricipeda</i>	White Ermine				✓						Various
<i>Stelis punctulatissima</i>	Banded Dark Bee					✓					Various
<i>Thecla betulae</i>	Brown Hairstreak		Sch 5 s9.5a		✓	✓					Hedgerows, Mixed deciduous woodland
<i>Thereva plebeja</i>	Crochet-hooked Stiletto					✓					Various
<i>Tychius schneideri</i>	A true weevil					✓					
<i>Tyria jacobaeae</i>	Cinnabar				✓						
Amphibians											
<i>Bufo bufo</i>	Common Toad		Sch 5 s9.5a		✓	✓					Various wetlands
<i>Lissotriton vulgaris</i>	Smooth Newt		Sch 5 s9.5a								
<i>Rana temporaria</i>	Common Frog		Sch 5 s9.5a								
<i>Triturus cristatus</i>	Great Crested Newt	Sch 2	Sch 5 s9.4b-c, 9.5a		✓						
Reptiles											
<i>Natrix helvetica</i>	Grass Snake		Sch 5 s9.1(killing/injuring), 9.5a		✓						Various
<i>Zootoca vivipara</i>	Common Lizard		Sch 5 s9.1(killing/injuring), 9.5a		✓						Various
Birds											
<i>Acanthis flammea</i>	Redpoll					✓	Red				Woodland
<i>Accipiter nisus</i>	Eurasian Sparrowhawk					✓	Amber				
<i>Alauda arvensis</i>	Skylark				✓		Red				Calcareous & Acid grassland, Arable field margins
<i>Anas platyrhynchos</i>	Mallard					✓	Amber				
<i>Anthus pratensis</i>	Meadow Pipit						Amber				Heathland, Acid grassland, Meadows
<i>Anthus trivialis</i>	Tree Pipit				✓		Red				Heathland
<i>Apus apus</i>	Common Swift					✓	Red				Urban
<i>Ardea cinerea</i>	Grey Heron					✓					
<i>Chloris chloris</i>	Greenfinch					✓	Red				
<i>Chroicocephalus ridibundus</i>	Black-headed Gull					✓	Amber				
<i>Columba oenas</i>	Stock Dove						Amber				

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Scientific name	Common Name	Habitat Regulations ¹²	WCA ³	Protection of Badgers Act 1992	SPI ⁴	Red data list/ nationally scarce/ nationally rare ⁵	BoCC ⁶	Axiophyte ⁷	AWI ⁸	GI ⁹	Relevant HPI
<i>Columba palumbus</i>	Wood Pigeon						Amber				
<i>Corvus frugilegus</i>	Rook					✓	Amber				
<i>Cuculus canorus</i>	Common Cuckoo				✓	✓	Red				Various
<i>Curruca communis</i>	Common Whitethroat						Amber				
<i>Delichon urbicum</i>	House Martin					✓	Red				Urban, Standing water
<i>Dryobates minor</i>	Lesser Spotted Woodpecker					✓	Red				Mixed deciduous/Wet woodland, Wood-pasture & parkland
<i>Emberiza citrinella</i>	Yellowhammer				✓		Red				Hedgerows, Arable field margins, Heathland
<i>Emberiza schoeniclus</i>	Reed Bunting				✓		Amber				
<i>Falco subbuteo</i>	Hobby		Sch 1 Part 1								Heathland, Mixed deciduous woodland
<i>Falco tinnunculus</i>	Common Kestrel					✓	Amber				Various
<i>Larus argentatus</i>	Herring Gull					✓	Red				Various
<i>Larus canus</i>	Common Gull						Amber				Standing water, Rivers
<i>Larus fuscus</i>	Lesser Black-backed Gull						Amber				
<i>Larus marinus</i>	Great Black-backed Gull					✓	Amber				Standing water, Rivers
<i>Linaria cannabina</i>	Linnet					✓	Red				Heathland, Hedgerows, Arable field margins
<i>Loxia curvirostra</i>	Common Crossbill		Sch 1 Part 1								Heathland
<i>Motacilla cinerea</i>	Grey Wagtail					✓	Amber				Rivers, Standing water
<i>Passer domesticus</i>	House Sparrow				✓		Red				Urban, Hedgerows
<i>Phalacrocorax carbo</i>	Great Cormorant					✓					
<i>Phylloscopus trochilus</i>	Willow Warbler						Amber				Heathland, Wet woodland
<i>Poecile palustris</i>	Marsh Tit					✓	Red				Mixed deciduous woodland
<i>Prunella modularis</i>	Dunnock						Amber				Various
<i>Pyrrhula pyrrhula</i>	Bullfinch						Amber				
<i>Streptopelia decaocto</i>	Collared Dove					✓					
<i>Strix aluco</i>	Tawny Owl					✓	Amber				Mixed deciduous woodland, Wood-pasture & parkland
<i>Sturnus vulgaris</i>	Common Starling					✓	Red				Urban
<i>Troglodytes troglodytes</i>	Wren						Amber				
<i>Turdus iliacus</i>	Redwing		Sch 1 Part 1			✓	Amber				Various
<i>Turdus philomelos</i>	Song Thrush						Amber				Various

Scientific name	Common Name	Habitat Regulations ¹²	WCA ³	Protection of Badgers Act 1992	SPI ⁴	Red data list/ nationally scarce/ nationally rare ⁵	BoCC ⁶	Axiophyte ⁷	AWI ⁸	GI ⁹	Relevant HPI
<i>Turdus pilaris</i>	Fieldfare		Sch 1 Part 1			✓	Red				Various
<i>Turdus viscivorus</i>	Mistle Thrush					✓	Red				Mixed deciduous woodland, Wood-pasture & parkland
<i>Vanellus vanellus</i>	Northern Lapwing				✓	✓	Red				Floodplain grazing marsh, Standing water, Arable field margins
Mammals											
<i>Chiroptera</i>	A bat	Sch 2									
<i>Eptesicus serotinus</i>	Serotine	Sch 2	Sch 5 s9.4b-c, 9.5a			✓					Mixed deciduous woodland, Wood-pasture & parkland, Urban
<i>Erinaceus europaeus</i>	West European Hedgehog				✓	✓					Urban and gardens; Improved grassland; Arable and horticulture; Broadleaved woodland; Coniferous woodland; Unimproved grassland
<i>Mustela putorius</i>	Polecat	Sch 4			✓						All habitats
<i>Myotis</i>	A myotis	Sch 2	Sch 5 s9.4b-c, 9.5a								Various
<i>Nyctalus leisleri</i>	Leisler's	Sch 2	Sch 5 s9.4b-c, 9.5a			✓					
<i>Nyctalus noctula</i>	Noctule	Sch 2	Sch 5 s9.4b-c, 9.5a		✓						
<i>Pipistrellus</i>	A pipistrelle	Sch 2	Sch 5 s9.4b-c								
<i>Pipistrellus nathusii</i>	Nathusius' Pipistrelle	Sch 2	Sch 5 s9.4b-c			✓					
<i>Pipistrellus pipistrellus</i>	Common Pipistrelle	Sch 2	Sch 5 s9.4b-c								
<i>Plecotus auritus</i>	Brown Long-eared Bat	Sch 2	Sch 5 s9.4b-c, 9.5a		✓						Various
Vascular plants											
<i>Allium schoenoprasum</i>	Chives					✓		✓			
<i>Anacamptis morio</i>	Green-winged Orchid					✓		✓		✓	
<i>Apera spica-venti</i>	Loose Silky-bent					✓		✓			
<i>Arabis hirsuta</i>	Hairy Rock-cress					✓		✓		✓	
<i>Briza media</i>	Quaking-grass					✓		✓		✓	
<i>Buxus sempervirens</i>	Box					✓		✓			
<i>Calluna vulgaris</i>	Heather					✓		✓		✓	
<i>Campanula rotundifolia</i>	Harebell					✓		✓		✓	
<i>Carlina vulgaris</i>	Carline Thistle					✓		✓		✓	

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<i>Centaurea cyanus</i>	Cornflower				✓			✓			
<i>Cephalanthera damasonium</i>	White Helleborine				✓	✓		✓			
<i>Cerastium pumilum</i>	Dwarf Mouse-ear					✓		✓		✓	
<i>Chamaemelum nobile</i>	Chamomile				✓	✓		✓		✓	
<i>Cichorium intybus</i>	Chicory					✓		✓		✓	
<i>Clinopodium acinos</i>	Basil Thyme				✓	✓		✓		✓	
<i>Cruciata laevipes</i>	Crosswort					✓		✓			
<i>Cynodon dactylon</i>	Bermuda-grass					✓		✓			
<i>Epipactis phyllanthes</i>	Green-flowered Helleborine					✓		✓			
<i>Euphorbia exigua</i>	Dwarf Spurge					✓		✓			
<i>Euphrasia nemorosa</i>	Common Eyebright					✓		✓		✓	
<i>Euphrasia pseudokernerii</i>	Chalk Eyebright				✓	✓		✓		✓	
<i>Filago pyramidata</i>	Broad-leaved Cudweed		Sch 8		✓	✓		✓		✓	
<i>Fragaria vesca</i>	Wild Strawberry					✓		✓		✓	
<i>Gentianella amarella</i>	Autumn Gentian					✓		✓		✓	
<i>Gentianella anglica</i>	Early Gentian	Sch 5	Sch 8		✓						
<i>Geranium sanguineum</i>	Bloody Crane's-bill					✓					
<i>Glebionis segetum</i>	Corn Marigold					✓		✓			
<i>Helianthemum nummularium</i>	Common Rock-rose					✓		✓		✓	
<i>Helleborus foetidus</i>	Stinking Hellebore					✓		✓			
<i>Hieracium sabaudum</i>	Autumn Hawkweed					✓				✓	
<i>Hippophae rhamnoides</i>	Sea-buckthorn					✓					
<i>Hyacinthoides non-scripta</i>	Bluebell		Sch 8					✓	✓		
<i>Hyoscyamus niger</i>	Henbane					✓		✓			
<i>Juniperus communis</i>	Juniper				✓	✓		✓			
<i>Knautia arvensis</i>	Field Scabious					✓		✓		✓	
<i>Lepidium campestre</i>	Field Pepperwort					✓		✓			
<i>Lepidium latifolium</i>	Dittander					✓		✓			
<i>Mentha suaveolens</i>	Round-leaved Mint					✓		✓			
<i>Ophrys sphegodes</i>	Early Spider-orchid		Sch 8			✓		✓			

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<i>Orchis anthropophora</i>	Man Orchid				✓	✓		✓		✓	
<i>Oxalis acetosella</i>	Wood-sorrel					✓		✓	✓		
<i>Phyteuma orbiculare</i>	Round-headed Rampion					✓		✓		✓	
<i>Plantago media</i>	Hoary Plantain					✓		✓		✓	
<i>Potentilla erecta</i>	Tormentil					✓		✓		✓	
<i>Rhinanthus angustifolius</i>	Greater Yellow-rattle		Sch 8			✓		✓		✓	
<i>Rubus britannicus</i>	A Bramble					✓					
<i>Sagina nodosa</i>	Knotted Pearlwort					✓		✓		✓	
<i>Salvia verbenaca</i>	Wild Clary					✓		✓		✓	
<i>Sanicula europaea</i>	Sanicle					✓		✓	✓		
<i>Saxifraga hypnoides</i>	Mossy Saxifrage					✓					
<i>Solidago virgaurea</i>	Goldenrod					✓		✓	✓	✓	
<i>Spiranthes spiralis</i>	Autumn Lady's-tresses					✓		✓		✓	
<i>Thesium humifusum</i>	Bastard-toadflax					✓		✓		✓	
<i>Tilia platyphyllos</i>	Large-leaved Lime					✓		✓			
<i>Valeriana officinalis</i>	Common Valerian					✓		✓		✓	
<i>Valerianella dentata</i>	Narrow-fruited Cornsalad					✓		✓			
<i>Veronica officinalis</i>	Heath Speedwell					✓		✓		✓	
<i>Viola canina</i>	Heath Dog-violet					✓		✓			
Invasive non-native species											
<i>Allium triquetrum</i>	Three-cornered Garlic		Sch 9 Part 2 (England & Wales only)								
<i>Branta canadensis</i>	Canada Goose		Sch 9 Part 1								
<i>Cotoneaster bullatus</i>	Hollyberry Cotoneaster		Sch 9 Part 2 (England & Wales only)								
<i>Cotoneaster horizontalis</i>	Wall Cotoneaster		Sch 9 Part 2 (England & Wales only)								
<i>Cotoneaster simonsii</i>	Himalayan Cotoneaster		Sch 9 Part 2 (England & Wales only)								

Scientific name	Common Name	Habitat Regulations ¹²	WCA ³	Protection of Badgers Act 1992	SPI ⁴	Red data list/ nationally scarce/ nationally rare ⁵	BoCC ⁶	Axiophyte ⁷	AWI ⁸	GI ⁹	Relevant HPI
<i>Eriocheir sinensis</i>	Chinese Mitten Crab		Sch 9 Part 1 (England & Wales only)								
<i>Psittacula krameri</i>	Ring-necked Parakeet		Sch 9 Part 1								
<i>Reynoutria japonica</i>	Japanese Knotweed		Sch 9 Part 2								
<i>Rhododendron ponticum</i>	Rhododendron		Sch 9 Part 2 (England & Wales only)								
<i>Sciurus carolinensis</i>	Eastern Grey Squirrel		Sch 9 Part 1								Broadleaved woodland; Urban and gardens; Coniferous woodland

Appendix 8: European protected species checklist

EPS checklist V3 (publishing.service.gov.uk)

European Protected Species and woodland operations. (V4)		
Complete all sections of the Checklist		
<div> <div>Checklist</div> <div> <div>1</div> <div> <p>Are you within, or close to, the known mapped range of any of the protected species OTHER THAN BATS which are potentially everywhere? Tick any that apply. See distribution maps in the Good Practice Guidance for each species -</p> <p> <input type="checkbox"/> Dormice <input type="checkbox"/> Otters <input type="checkbox"/> Great crested newts <input type="checkbox"/> Sand lizards <input type="checkbox"/> Smooth snakes </p> </div> </div> </div>		<div> <div>YES</div> <div>NO</div> </div>
<div> <div>2</div> <div> <p>Does your wood contain any of the following habitats? Tick any that apply.</p> <p> <input type="checkbox"/> Old trees with holes and crevices which might be used by bats <input type="checkbox"/> Species rich scrub/coppice, early growth stage plantations and forest interfaces <input type="checkbox"/> Rivers on which otters might be found <input type="checkbox"/> Ponds which might be occupied by great crested newts <input type="checkbox"/> Open areas on heathy soils </p> </div> </div>		<div> <div>YES</div> <div>NO</div> </div>
<div> <div>3</div> <div> <p>Have any of the protected species been recorded in this wood or on adjoining sites? Tick any that apply. Indicate which sources of information you have checked:</p> <p> <input type="checkbox"/> National Biodiversity Network (www.nbn.org.uk) <input type="checkbox"/> Local Biological Records Centre <input type="checkbox"/> Local Wildlife Trust <input type="checkbox"/> Other Specify Other: </p> </div> </div>		<div> <div>YES</div> <div>NO</div> </div>
<div> <div>4</div> <div> <p>Have your inspections or any expert surveys found any of the following signs or evidence? Tick any that apply.</p> <p> <input type="checkbox"/> Signs (e.g. otter spraint, nuts gnawed by dormice, leaves folded by newts) <input type="checkbox"/> Sightings (or echo-location) <input type="checkbox"/> Potential breeding or roosting sites (e.g. veteran trees, old trees with crevices, riverside hollow trees, ponds, timber stacks, large fallen deadwood) <input type="checkbox"/> Confirmed breeding or roosting sites (i.e. evidence of sites actually being used) Details: </p> </div> </div>		<div> <div>YES</div> <div>NO</div> </div>
<div> <div>CHECK POINT</div> <div> <p>If you have answered NO to ALL of the above then only bats need to be considered in your operations.</p> <p>If you have answered YES to any of the above then the species concerned must be considered as well as bats.</p> </div> </div>		
<div> <div>5</div> <div> <p>Do the operations comply with Good Practice for bats and any other species found (or likely to be found in your wood) or can the operations be modified to do so? Details: Use reverse of form to expand as required:</p> </div> </div>		<div> <div>YES</div> <div>NO</div> </div>
<div> <div>6</div> <div> <p>Whether or not a licence is required... Has the information been communicated to operators (including the location of breeding sites and sensitive areas)? Tick any that apply.</p> <p> <input type="checkbox"/> Included in documentation (e.g. contract, letter of instruction, site assessment or other management plan) <input type="checkbox"/> Shown to operators and/or their supervisor <input type="checkbox"/> Marked with paint or hazard tape <input type="checkbox"/> Shown on the site plan Other means: </p> </div> </div>		<div> <div>YES</div> <div>NO</div> </div>
<div> <div>7</div> <div> <p>Have arrangements for supervision been made to ensure Good Practice guidance is complied with during the operations? Details:</p> </div> </div>		<div> <div>YES</div> <div>NO</div> </div>
<div> <div>Details</div> <div> <div>Name of Wood:</div> <div>Grid Reference:</div> <div>Area: (ha)</div> <div>Date of Assessment:</div> <div>Name of Assessor:</div> </div> </div>		
<div> <div>Notes</div> <div> <p>A licence is not required but continue to sections 6 and 7 below</p> <p>You will need to obtain a licence BEFORE carrying out the work (see EPS Licence Application Forms and Notes)</p> <p>You may commit an offence if you do not tell your operators about the protected species in your wood.</p> <p>You may commit an offence if you do not take steps to ensure that your operators comply with the Good Practice guidance.</p> </div> </div>		

Appendix 9: Basic biosecurity protocols

Basic biosecurity advice for site visits

You should consider biosecurity at the earliest stage when planning any field work, from surveying an area to removing non-native species. Some biosecurity measures can be as simple and as quick as making sure your equipment (including any sampling or survey equipment), footwear, PPE, and vehicle is clean.

1. If practical do not take vehicles onto premises, keep to established tracks and park vehicles on hard standing.
2. Arrive at the site with clean equipment, footwear and vehicle.
3. Ensure equipment and footwear is clean (visually from soil and debris) before leaving the site.
4. Ensure vehicle is kept clean - in particular, remove any accumulated mud before leaving the site.
5. Make use of facilities provided on the site to clean footwear/equipment.
6. Keep access to a minimum.
7. Where possible avoid areas of livestock or known disease.
8. Plan visits so that the highest risk site is visited last (NNSS: GB Non-native Species Secretariat, 2023).

Appendix 10

Creating a hibernacula for amphibians and reptiles

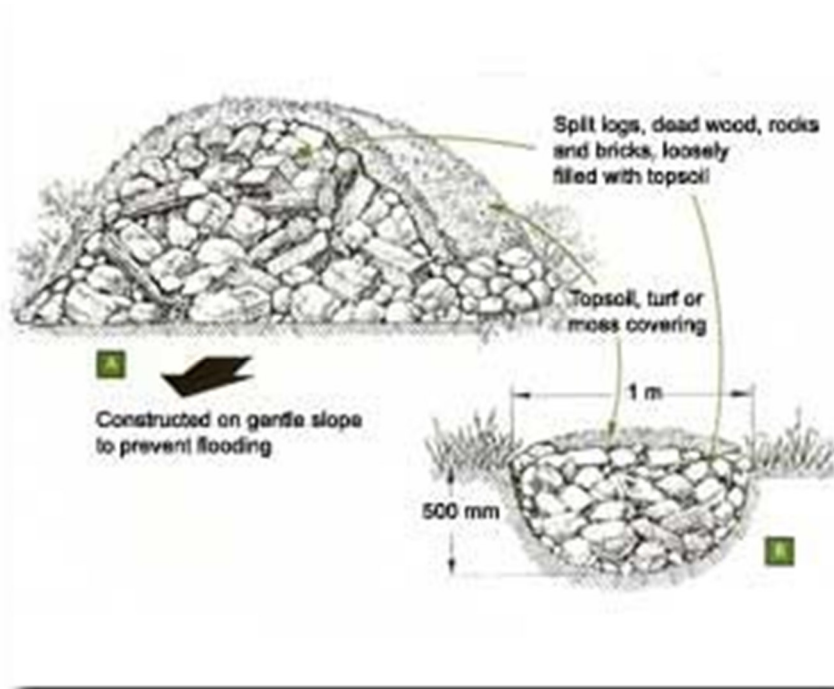
Hibernacula are underground chambers that amphibians and reptiles use through the winter to protect them from the cold.

Reptiles and amphibians will use a range of substrates for hibernacula including piles of rubble, rock, logs and earth banks (with plenty of mammal burrows and ground fissures).

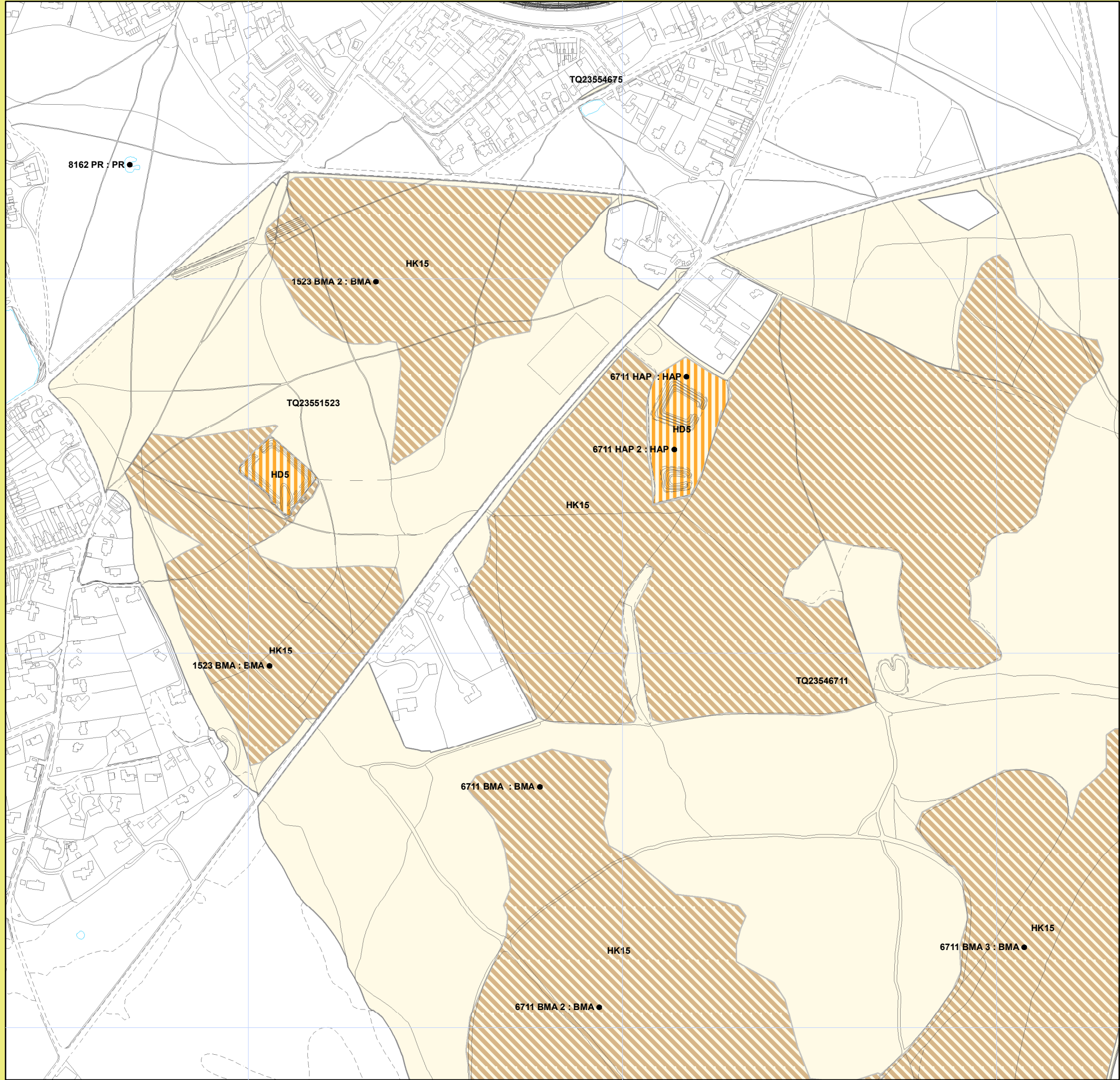
Amphibians require humidity and an artificial hibernacula should ideally be located near to water, and definitely in sheltered habitat (e.g. in long grass or woodland edge vegetation). They should be free-draining and located in sheltered areas which are neither too dry nor prone to winter flooding or freezing.

To build the hibernacula, either create a mound or dig a hole containing a mixture of topsoil, rubble, and rough cut logs. Dimensions of the hibernacula should generally be above 2m length x 1m width x 1m height. Lay bricks, stones, paving slabs or large pieces of concrete over the mound which will create gaps and allow amphibians to access the centre of the mound. A thin layer of soil and brash, can be laid over the top of this, as long as it does not block the hibernacula access points.

Encourage the growth of vegetation on the north side of the mound to provide extra shelter but prevent vegetation from encroaching onto the south facing side of the mound as sparse vegetation cover here will give animals a suitable location to bask. Periodic thinning of vegetation on the hibernacula will help prevent a thick root matt developing, which makes it hard for reptiles and insects to burrow into the surface.



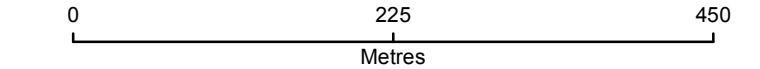
Appendix 11: Banstead Heath HLS agreement mapping



HIGHER LEVEL STEWARDSHIP
OPTIONS MAP

Assigned colour		Applicants colour match
Options		
HB	Maintenance of hedgerows/ditches of very high environmental value	
HC/OHC	Management of woodland edges/hedgerow buffer strips	
HC/OHC	Protection of trees *Number within circle represents number of trees in parcel	6
HC/UHC/UOHC	Options for woodland	
HD/OHD/UHD/UOHD	Maintenance of traditional farm buildings/visibility of archaeological features on moorland	
HD/OHD	Options for historic and landscape features	
HE/OHE	Options for buffer strips and grass margins	
HF/OHF	Options for arable land	
HG/OHG	Options to encourage a range of crop type	
HJ/OHJ	Maintenance of watercourse fencing	
HJ/OHJ/UHJ/UOHJ	Options to protect soil and water	
HK/OHK	Options for grassland	
HL/OHL/UHL/UOHL	Options for upland grassland and moorland	
HO	Lowland heathland options	
HP	Inter-tidal and coastal options	
HQ	Wetland options	
GF	Capital item	
PC	Capital item	
SX12345678 RLR field number		
Holding parcels		

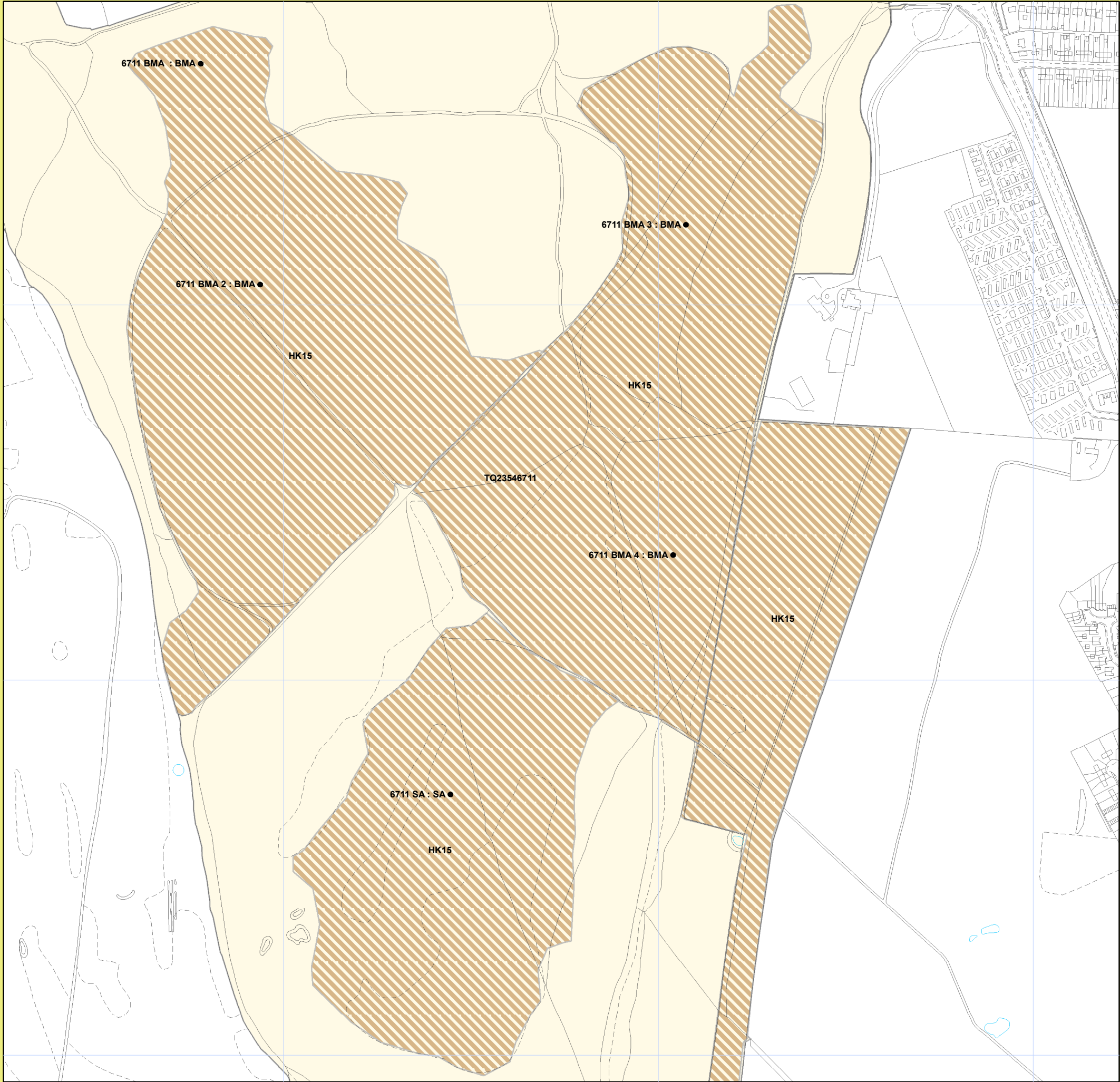
You must write the specific option codes you have selected in black on the map, e.g. HD2, OHF4, HK12, HP3, UHD13, UOHL21. Options with a 'U' prefix have certain restrictions, refer to handbook.



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Application Ref: AG00363472

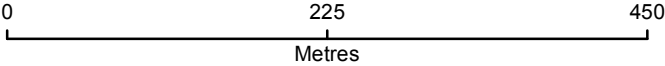




HIGHER LEVEL STEWARDSHIP
OPTIONS MAP

Assigned colour		Applicants colour match
Options		
HB	<div></div> Maintenance of hedgerows/ditches of very high environmental value	<div></div>
HC/OHC	<div></div> Management of woodland edges/hedgerow buffer strips	<div></div>
HC/OHC	<div>6</div> * Protection of trees *Number within circle represents number of trees in parcel	<div>6</div>
HC/UHC/UOHC	<div></div> Options for woodland	<div></div>
HD/OHD/UHD/UOHD	<div></div> Maintenance of traditional farm buildings/visibility of archaeological features on moorland	<div></div>
HD/OHD	<div></div> Options for historic and landscape features	<div></div>
HE/OHE	<div></div> Options for buffer strips and grass margins	<div></div>
HF/OHF	<div></div> Options for arable land	<div></div>
HG/OHG	<div></div> Options to encourage a range of crop type	<div></div>
HJ/OHJ	<div></div> Maintenance of watercourse fencing	<div></div>
HJ/OHJ/UHJ/UOHJ	<div></div> Options to protect soil and water	<div></div>
HK/OHK	<div></div> Options for grassland	<div></div>
HL/OHL/UHL/UOHL	<div></div> Options for upland grassland and moorland	<div></div>
HO	<div></div> Lowland heathland options	<div></div>
HP	<div></div> Inter-tidal and coastal options	<div></div>
HQ	<div></div> Wetland options	<div></div>
<div>PC</div> GF 4	Capital item	
SX12345678 RLR field number		
<div></div> Holding parcels		

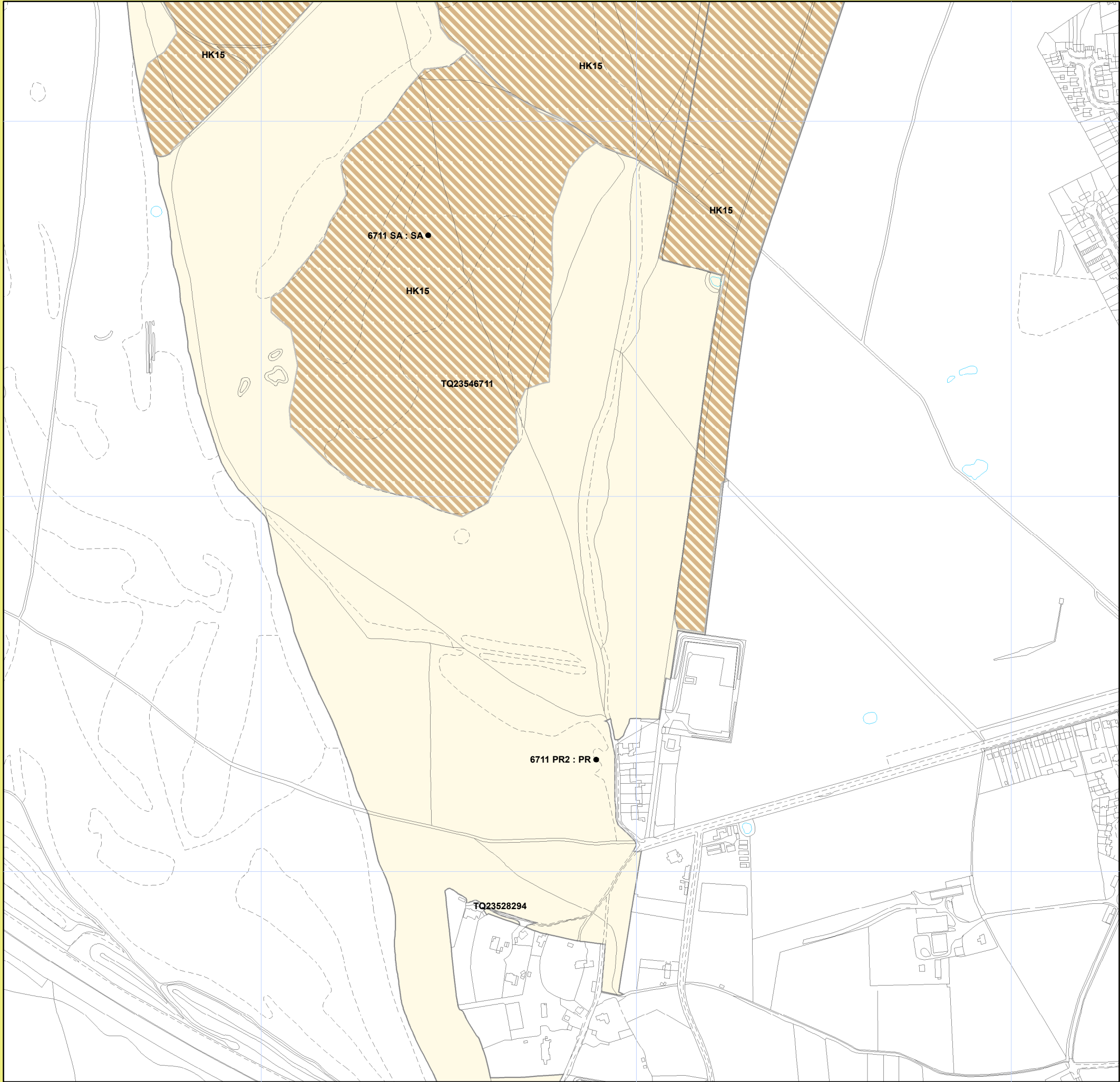
You must write the specific option codes you have selected in black on the map, e.g. HD2, OHF4, HK12, HP3, UHD13, UOHL21. Options with a 'U' prefix have certain restrictions, refer to handbook.



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Application Ref: AG00363472

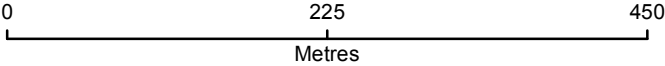




HIGHER LEVEL STEWARDSHIP
OPTIONS MAP

Assigned colour		Applicants colour match
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HJ/OHJ	Maintenance of watercourse fencing	
HJ/OHJ/UHJ/UOHJ	Options to protect soil and water	
HK/OHK	Options for grassland	
HL/OHL/UHL/UOHL	Options for upland grassland and moorland	
HO	Lowland heathland options	
HP	Inter-tidal and coastal options	
HQ	Wetland options	
GF	Capital item	
PC		
SX12345678 RLR field number		
Holding parcels		

You must write the specific option codes you have selected in black on the map, e.g. HD2, OHF4, HK12, HP3, UHD13, UOHL21. Options with a 'U' prefix have certain restrictions, refer to handbook.



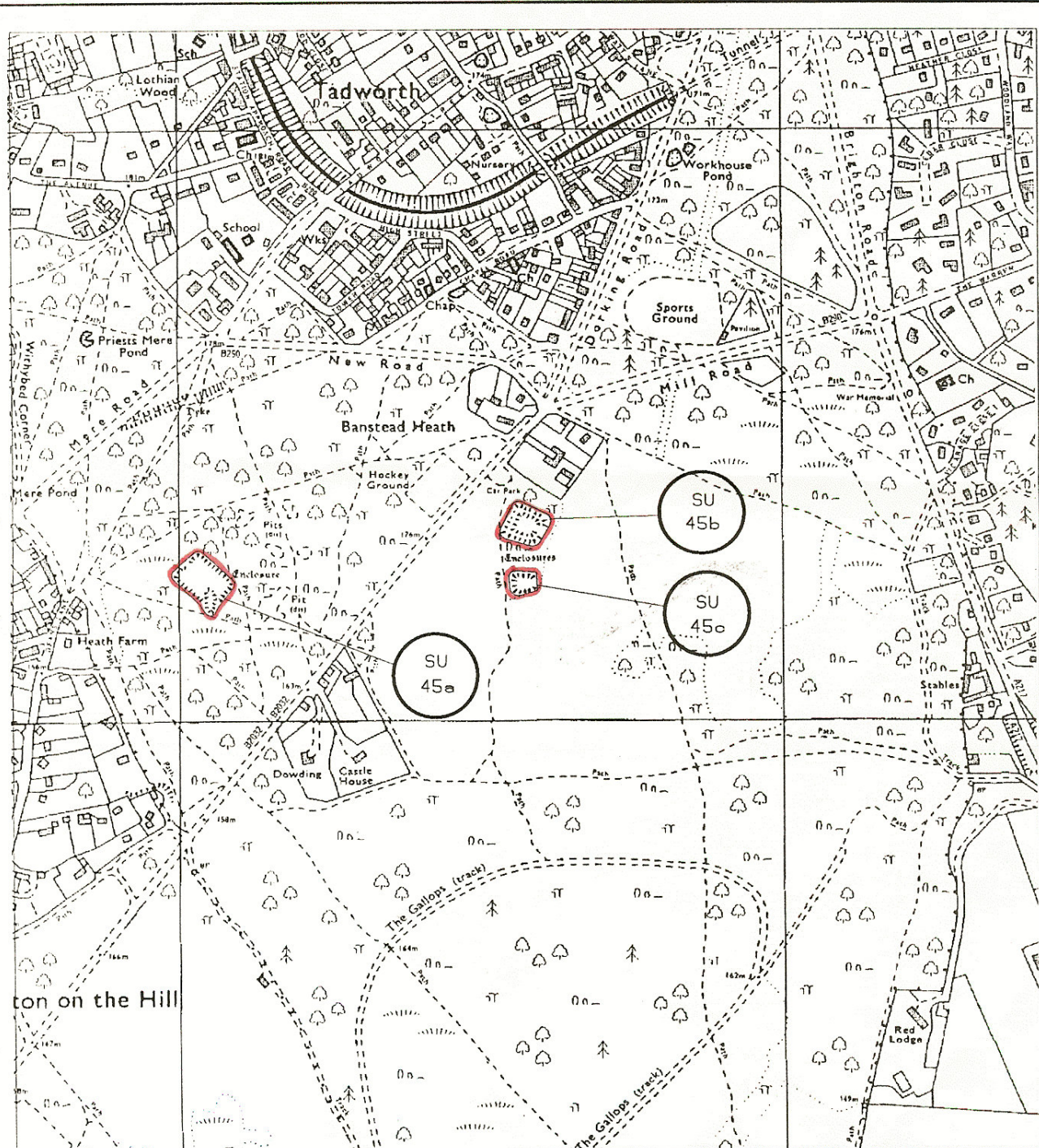
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Application Ref: AG00363472



Appendix 12: Scheduled monuments

Scheduled Monument



© Crown copyright reserved

For identification purposes only

Site Name: Three quadrangular earthworks on Banstead Heath

County: Surrey

District: Reigate & Banstead

Parish: Banstead

Notes: SU45 consists of parts a-c

Key: Monument No. Location/extent of site



Scale: 1:10000

Derived from: 1:10000

Centred on NGR:

TQ23575522

Extract from OS sheet:

TQ25NW

Date: 15.5.91

Monument No: SU45

English Heritage

Fortress House 23 Savile Row London W1X 1AB Telephone 071-973 3000 Fax 071-973 3001

Appendix 13: Bat box information pack



Bat Box Information Pack

Bats are amazing animals that are important to ecosystems in the UK and worldwide. We have 18 species of bat in the UK, all of which are protected under European law. Bat populations in the UK have declined dramatically over the past century due to persecution and habitat loss. However, some UK bat species have recently shown some signs of increasing so there is hope.

Bat boxes are artificial roosts designed to provide bats with alternative resting places or to encourage bats into areas where there are few existing suitable roost sites. There are various designs of bat box; wooden boxes that you can make yourself, ready-assembled external boxes for buildings and trees, and even integrated bat boxes that can be built into walls.

Providing bat boxes can increase opportunities for roosting bats but it can take a while for bat boxes to be used regularly, particularly where a number of suitable alternative roost sites exist. Bat boxes can have an important additional function in encouraging interest and educating members of the public about bat conservation. The correct design and placement of boxes will help increase the likelihood of their uptake by bats.



© Andrew Dumbleton

Bat roost preferences

Bat boxes are now available from many outlets, and in a range of shapes and sizes, so some knowledge of what bat species are in your local area and their preferences will help you choose the best possible box. Some species such as horseshoe bats and grey long-eared bats do not use bat boxes.

Microclimate within a new roost is a very important factor in terms of increasing the chance of successful uptake by bats. In general, they prefer warm spaces in the summer for rearing young and cooler spaces in the winter for hibernation. The box should be draught proof and made from a thermally stable material such as untreated wood, ecostyrocrete, woodcrete, brick or stone. If possible, it's better to provide several internal chambers so that the bats can move around.



©Hugh Clark

Orientation and location

Structures for summer roosting should be positioned where they are sheltered from the wind but unshaded for most of the day. Summer maternity roosts (in the northern hemisphere) should be on a south-easterly to south-westerly aspect. It is always best to provide a number of different options for bats so that they can choose the most appropriate temperature based on their needs. This can be achieved by grouping a number of bat boxes each with a different aspect; two or three boxes is preferable to one, although a single box still has a chance of being used depending on the bat species that use the local area. Three boxes can be arranged around the trunk of larger trees – see below for details about putting up bat boxes.



© Fern Alder

Bat boxes are more likely to succeed in areas where there is a good mixture of foraging habitat, including trees, and a source of water (most maternity roosts are located within a short distance of permanent fresh water such as a stream, pond, river or lake). Bat boxes in areas with few other roosting opportunities are also likely to be more successful.

Bat boxes should also be located close to unlit linear features, such as lines of trees or hedgerows. Bat species use these features for navigation between their roosting sites and feeding grounds and to avoid flying in open and exposed areas. Ensure the bats approach to the box is not impeded, for example by branches – clear away underneath the box so the bats can land easily before crawling up into the box.

Size of the bat box

The most frequently used bat boxes are small and only suitable for crevice-dwelling bat species.

Access

Crevice dwelling bats crawl into their roosts via small gaps around 15-20mm high. Roughened vertical surfaces or landing areas allow better access (by landing and crawling), although horizontal landing perches should be avoided as these are not necessary, may even deter bats and encourage birds to nest within the bat box.

Other considerations

Bats are nocturnal and adapted to low light conditions. Artificial light sources should not be directed onto bat boxes or flight paths as most bat species find artificial lighting very disturbing.



© John Altringham

If possible, make or purchase bat boxes with an entrance slit along the bottom so that accumulated bat waste can drop out of the box or be pushed out as bats emerge. This will also help stop birds nesting in the box and blocking the entrance, which can happen with bat boxes that have entrance holes in the middle.

Boxes that may accumulate bat droppings will also need to be cleaned regularly by a licensed bat worker. It is important to remember that bat boxes must not be opened by anyone except a licensed bat worker (see ‘monitoring bat boxes’ below for more details on licences). In addition, nesting birds must not be disturbed so leave the area immediately upon finding an active nest in a box, and there is the potential for dormice to be found in some woodland boxes, in which case the box must only be checked by a licensed ecologist

Types of bat boxes

Bat boxes come in many forms depending on their materials, function and location. Simple bat boxes are available commercially or can even be home-made. Bat boxes can be divided into the following categories: self-made external bat boxes, ready-made external bat boxes, integrated bat boxes and free standing bat boxes. Advanced forms of artificial roost creation include bat houses, bat barns and internal bat lofts (if you are interested in these please refer to the websites and publications listed at the end of this document).

Self-made external bat boxes

Self-made wooden bat boxes are usually located on trees or the outside walls of buildings. These boxes are usually cubic or rectangular, with a grooved ‘bat ladder’ and a narrow entrance slit at the bottom. These will last for approximately ten years and can either be bought in kit form, or you can make your own from scratch (there are instructions for the ‘The Kent bat box’ pictured below in the Appendix at the end of this document – these boxes are also available commercially).

They come in a variety of shapes but key requirements are:



- The wood should be rough sawn for grip and untreated.
- Bats do not like draughts; the entrance slit should be no more than 15-20mm wide and there should be no gaps where the sides and top join - the box should be well put together.
- A box that cannot be opened is best - it will lessen the chances of the bats being harmed through becoming trapped under the opened lid, or disturbed by people opening the top.
- To increase longevity of the box, use screws rather than nails.
- Any screws, hardware or staples used must be exterior grade (galvanized, coated, stainless, etc).

Ready-made external bat boxes

There are a number of ready made external bat boxes suitable for buildings and trees that can be purchased. These boxes can be made from wood, however there are an increasing number of more durable options, such as ecostyrocete (pictured right). These types of boxes can come in a range of finishes to blend into the buildings façade or indeed to highlight their presence!



Integrated bat boxes



Integral or integrated bat boxes can be built into the walls or masonry of houses and other buildings. The boxes can be embedded such that they do not impair the air-tightness of the building. Many designs are available including some that have bespoke coverings that can match the building façade and / or highlight the boxes presence (see boxes left and below from [Habibat](#)). The same principles for size, location and access apply.



Ready-made free standing boxes

American style bat houses (larger, multi-chambered boxes) have been successfully used for bat conservation in North America and elsewhere. These large multi-chambered boxes are increasingly being used in the UK for sites where there are few suitable features (such as trees or buildings) for boxes to be attached to, as they can be put up on poles:

<http://www.batcon.org/files/RocketBoxPlans.pdf>

Commercial designs are now available, such as the 'rocket box' from Habibat (pictured right).



Habibat

Habibat is a partnership between the Bat Conservation Trust, Ecosurv, their partnership bat box companies and Habibats customers. Their aim is to provide bat boxes that work for bats and buildings. A portion of the profits from each Habibat partner company bat box sold is reinvested into the Habibat scheme to improve accommodation for bats in the long run with an aim to implement monitoring and research. The scheme aims to improve knowledge of integrated bat box use and design, and give customers guidance on installation.



If you would like further information on the products and partnership companies, visit the Habibat website: www.habibat.co.uk.

Putting up bat boxes

Most bat species will use higher positioned boxes (around 4m up); assess the risk of working at height when undertaking the installation, then place the box as high as it is safe to do so. This will also help protect bats from vandalism and falling prey to cats. If working in the public realm, try to locate boxes so they are not above public walkways.

Ensure the boxes are appropriately fitted, to avoid the risk of them falling off. The boxes should be checked at least annually and after high winds to ensure they are still securely in place.



© Sue Burchett

On buildings

Place the boxes high up by the eaves on a building, which can also help shelter the box from the weather. As detailed above, the aspect of the box should capture sun for part of the day if the intention is to attract maternity colonies.

Gazebos, garden walls and sheds have been suggested as sites for bat boxes. However, the main danger is that the boxes are not high enough above the ground, the structures may not be robust enough to support the box in high winds and the boxes are too visible to predators or vandals.

On trees

Consideration should be given to tree growth and boxes may need rehangings over time, regularly check boxes to assess this. Use headless or domed nails not fully hammered home to allow the tree growth, again regular checks will ensure that this allowance can be made while still being securely fitted. Iron nails can be used on trees with no commercial value. Copper nails can be used on conifers, but aluminium alloy nails are less likely to damage saws and chipping machinery.

Monitoring bat boxes

Making and putting up bat boxes is a great conservation action but what is even more useful is to know whether they are being used, when and by which species.

How long before bats will use the box?

Sometimes it can take several years for bats to find a new box. Be patient! Slow (or no) uptake may be due to the availability of other roosts locally. Sometimes, however, bats move in within months or even weeks!



© Daniel Fellman

How will I know if the box has been successful?

To check if the box is being used, look out for droppings and urine-staining on the vertical 'bat ladder' below the box and listen for 'chattering' during the day, especially during the summer months. You can also watch the box for an hour either side of sunset to observe any bats leaving to feed, or around dawn to see any bats returning to their roost. Bats may be observed by looking up into the box from below, however no light should be used as this may disturb any bats that are present.

Licensing and the law

You can undertake the non-invasive checks above without needing a licence. However, if the box needs to be opened to check it then there must be a suitably licensed bat worker present. Anyone wishing to undertake bat box checks should obtain training in bat handling and identification before applying for a licence. You can find out more about licensing and bats on the Bat Conservation Trust website at: www.bats.org.uk/pages/licensing.html



©Liz Greenwood

All bats and their roosts are protected by law and it is an offence to deliberately disturb, handle or kill bats. The relevant legislation in England & Wales is the Wildlife and Countryside Act 1981 and Conservation of Habitats & Species Regulations 2010 (as amended). In Scotland it is the Conservation (Natural Habitats, etc.) Regulations 1994 and in Northern Ireland the Conservation (Natural Habitats, etc.) Regulations (Northern Ireland) 1995.

A bed without breakfast?

Bats often use features such as hedgerows, tree lines and watercourses as commuting pathways between roosts and foraging areas. This type of habitat also provides shelter, allowing insects to gather and therefore supports foraging bats. The highest densities of bats occur where insects are most plentiful.

Make sure you maintain or create good foraging habitats for bats by planting a wide range of plants such as flowers that vary not only in colour and fragrance, but also in shape. See BCT's 'Encouraging Bats' leaflet for more information (www.bats.org.uk/publications).



Other useful websites

Bat Conservation Trust

www.bats.org.uk

The Bat Conservation Trust (BCT) is working towards a world where bats and people thrive in harmony, to ensure they are around for future generations to enjoy. BCT is the only organisation solely devoted to bat conservation in the UK.

Bat Conservation International

www.batcon.org

Bat Conservation International's mission is to conserve the world's bats and their ecosystems to ensure a healthy planet. Based in Austin, Texas, BCI is devoted to conservation, education and research initiatives involving bats and the ecosystems they serve.

Roost

roost.bats.org.uk

Roost is a resource developed by the Bat Conservation Trust (BCT) to aid in the gathering of information on bat roost mitigation, compensation and enhancement techniques. The aim is for this site to provide accessible information to support everyone involved in bat conservation and development.

Vincent Wildlife Trust

www.vwt.org.uk

The Vincent Wildlife Trust (VWT) is an independent charitable body founded by Vincent Weir in 1975 and has been supporting wildlife conservation ever since. They conserve a range of endangered mammals through management of their own reserves, undertake pioneering research and provide expert advice to others through practical demonstration.

Publications

Gunnell, K., Murphy, B. and Williams, C. (2013) Designing for biodiversity: a technical guide for new and existing buildings (2nd ed.)

Gunnell, K., Grant, G. and Williams C. (2012) Landscape and urban design for bats and biodiversity

Mitchell-Jones, A.J (2004) Bat mitigation guidelines

Mitchell-Jones, A.J. and McLeish, A.P. (2004) Bat workers' manual (3rd edition)

Tuttle, M.D., Kiser M. and Kiser S (2004) The Bat House Builder's Handbook

Appendix: The Kent bat box (D.I.Y. instructions)

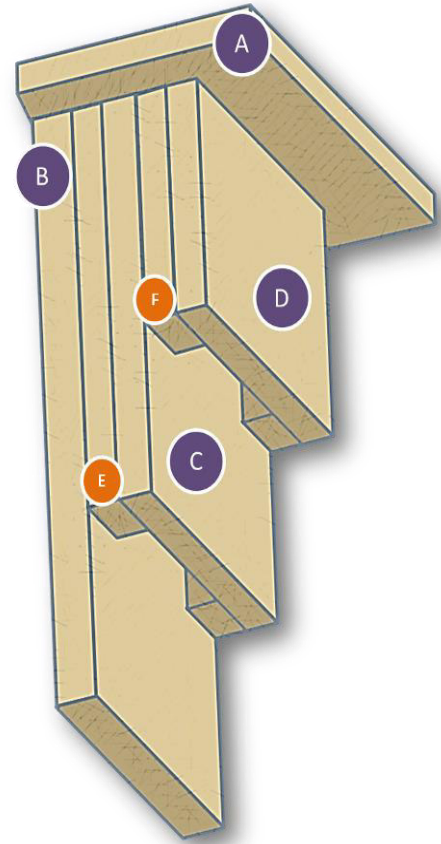
Design and measurements

Simple to construct, self-cleaning and low maintenance, the Kent bat box (designed by the Kent Bat Group) is a great way to encourage bats in your garden or your green space. The box should be rainproof and draught-free.

The only critical measurement is the width of the crevices: between 15-25mm. Other measurements are approximate. Timber should be approximately 20mm thick.

Measurements for one Kent bat box kit would be as follows:

Part	Quantity	Size (mm)
Roof (A)	1	250 x 160 x 20
Back (B)	1	450 x 200 x 20
Centre (C)	1	330 x 200 x 20
Front (D)	1	210 x 200 x 20
Centre Rails (E)	2	330 x 20 x 20
Front Rails (F)	2	210 x 15 x 15
Stand-offs (optional)	2	200 x 20 x 20



Material and Tools

This kit requires approximately 1.6m of rough wood and 25 screws (8 x 1 ½ inches) to assemble. You can rough it up by scraping with a suitable tool – possibly a saw blade or even a screwdriver but make sure you use untreated wood as some preservative chemicals can kill bats.

Pre-drill the holes to prevent the wood splitting. Alternatively you can assemble your bat box kit with nails although they tend to be less robust than boxes made with screws.

The hanging screws may either be at the edges of the front panel or in the side centre block (not in the rails!). Fixing may be by use of brackets, durable nylon cord or wires.

When installing the box, assess the risks of working at height, use the appropriate fittings and assess where the box will be located, in relation to any public access. Regular checks should be made to ensure the box remains securely fitted, especially after high winds.

Photos and illustrations in this document by the Bat Conservation Trust unless otherwise stated.

The Bat Conservation Trust (known as BCT) is a registered charity in England and Wales (1012361) and in Scotland (SC040116).

Registered office: Quadrant House, 250 Kennington Lane, London SE11 5RD

Email: enquiries@bats.org.uk

National Bat Helpline: 0345 1300 228