Banstead Downs

Site Management Plan

2024-2033

Appendices

SWT Ecology Services was commissioned by the Banstead Commons Conservators (BCC) 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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2.0	Original report
2.1	Update in line with comments from BCC (received 12/02/2024)
2.2	Update in line with further comments from BCC (received 07/04/2024)

The contents of this report were correct at the time of the site visit. The report is provided for the sole use of the named client.

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For full Site Management Plan see separate document

Appendices

Appendix 1: Site background

Banstead Downs SSSI

The SSSI is fully contained within the Banstead Downs site and comprises three units. Of these, two have been assessed as Unfavourable – Recovering (Units 2 & 3), and one has been assessed as Favourable (Unit 1, which falls within the golf club land). It should be noted that these assessments were completed in 2013 and so the conditions of the habitats within each unit may have changed significantly since then as a result of continued management efforts (see Figure 3 for location of SSSI units and condition as assessed in 2013).

- **Unit 1:** Met all required thresholds for favourable calcareous grassland including bare ground coverage, variation of sward height, lack of invasive species (both non-native species and native species invasive to calcareous grassland), scrub coverage and chalk flora diversity which included Bird's-foot Trefoil, Dropwort, Salad Burnet, Dwarf Thistle, Lady's Bedstraw, Kidney Vetch, Fairy Flax, Common Knapweed, Thymes, Bastard Toadflax, Upright Brome, Quaking-grass, Meadow Oat-grass, Squinancywort, Hairy Violet, Greater Knapweed, Rough Hawkbit, Lesser Hawkbit, Oxeye Daisy, Hoary Plantain, Small scabious, Milkworts, Common Rock-rose and Mouse-ear Hawkweed. Tor-grass was not recorded. Small Blue butterfly was confirmed to be breeding within this unit, using Kidney Vetch.
- **Unit 2:** Assessed as unfavourable due to scrub encroachment and grassland impoverishment due to the increasing dominance of tall grasses including tor-grass, however it was noted at the time of assessment that this unit was in active management and that the failing criteria were in the process of being improved upon. Failed criteria included proportion of bare ground, coverage of litter, Bracken coverage, sward variation, and overdominance of grass. Species present included Lady's Bedstraw, Upright Brome, Dropwort, Heath False-brome, Salad Burnet, Bird's-foot Trefoil, Common Rock-rose, Rough Hawkbit and Lesser Hawkbit. **Banstead Commons Conservators has since undertaken management of the site which has significantly improved its condition.**
- **Unit 3:** Assessed as unfavourable for similar reasons to Unit 2, and in particular was less species rich than the other units due to a lack of recent management. Again, it was noted at the time of assessment that new management practices were having a positive effect on the condition of the unit. Heavy Rabbit grazing was observed here, resulting in a shorter sward with less variation, although the ratio of herbs and grasses was at a passing level. Invasive non-native species were recorded in this unit, including Goldenrod and *Cotoneaster* spp., as well as tree encroachment from Dogwood, Sycamore and Ash. Tor-grass was present in too high an abundance, and other negative indicator species such as Docks and Common Nettle were recorded in too high an amount. Grassland species recorded included Hoary Plantain, Greater Knapweed, Bird's-foot Trefoil, Milkworts, Fairy Flax, Mouse-ear Hawkweed, Horseshoe Vetch, Dwarf Thistle, Small scabious, Kidney Vetch, gentians, saw-wort, Common Rock-rose, Heath False-brome, Sainfoin, Dyer's Greenweed, Dropwort, Salad Burnet, Devil's-bit Scabious, Cowslip, Rough Hawkbit, Lesser Hawkbit, Oxeye Daisy, Upright Brome, Hairy Violet, Squinancywort, Clustered Bellflower, Lady's Bedstraw and Thymes. Unit 3 was found to support a number of bird species, including Chiffchaff, yellowhammer, Collared Dove, Great Spotted Woodpecker, Long-tailed Tit and Whitethroat. **Banstead Commons Conservators has since undertaken management of the site which has significantly improved its condition,**

although this progress has been hindered by extensive antisocial activity via illegal biking activity.

Climate

Surrey is typical for southeast England, with warm summers and mild, cool winters. Precipitation is frequent across the year, although dry spells are also typical. In more recent years, Surrey has been impacted by heatwaves and flooding events, which have sometimes occurred unpredictably. There have also been increased occurrences of storms.

Topography

The land on Banstead Downs is gently sloping for the most part, with the high point centred around Gally Hills. However, there localised topography changes created by unpermitted bike courses, in particular the undulating steep slopes present in compartment 1.7 (see Figure 1 of Site Management Plan).

Hydrology

Banstead Downs falls within the Thames River Basin District, within the London Management Catchment. The western half of the site falls within the Hogsmill Operational Catchment, and the eastern half within the Beverley Brook Operational Catchment. None of the watercourses within these catchments fall within Banstead Downs, and there is a significant degree of separation between the two. There is one currently dry ditch within compartment 2.3 (see Figure 1 of Site Management Plan), which is likely used as a drainage ditch to manage excessive surface water at the neighbouring residential area. There is a pond within the golf course land. There is otherwise no hydrological interest within Banstead Downs.

History/archaeology

Two scheduled ancient monuments lie within Banstead Downs, comprising Saxon burial mounds within the woodland of Gally Hills. There are four mounds in total, with each listing covering an adjacent pair. They have been listed as a scheduled ancient monument since 1926 and have survived well and are visible above ground to about 0.5-1.2m in height. One of the mounds was partially excavated in 1972. These are listed by Historic England as 1008053 and 1008054.

Banstead Commons Conservators

Banstead Commons Conservators was set up as a result of the Metropolitan Commons (Banstead) Supplemental Act of 1893 and relate 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 protect them from damage and trespass. Further details of the Banstead Commons Conservators and their activities can be found at: www.bansteadcommons.org.uk

Higher Level Stewardship

An Higher Level Stewardship agreement covers Banstead Downs and should be referred to separately.

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 on behalf of SWT Ecology Services, which was received on 4th January 2023.The desk study included a search of records of protected species and those of conservation concern within 1 km of the survey area, and of statutory and non-statutory designated sites within 2 km of the survey area. Additional species data was provided by Banstead Commons Conservators, including data from butterfly transect surveys, a fungal foray and details from the most recent SNCI survey.

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 500m of the survey area boundary were identified using aerial photography and publicly available mapping.

Publicly available information on (DEFRA, 2023) was also consulted.

Habitat survey

Habitats in the survey area were mapped using the UK Habitat Classification survey methodology .(Butcher, Carey, Edmonds, Norton, & Treweek, 2020).

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 field surveys were undertaken on 1st, 2nd, 5th and 6th June 2023, in warm, sunny and dry conditions by Jenny Dawson MChem (Hons) MSc – Senior Ecologist.

BNG condition assessment

BNG assessment requires information on the condition of the habitat. This was undertaken on 1st, 2nd, 5th and 6th June 2023 by Jenny Dawson MChem (Hons) MSc, 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 (Natural England, 2023b). 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.

- Grassland = 1.1-11
- Woodland = 2.1-10
- Heathland and Shrub = 3.1-9

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 Natural England assessment uses different, more detailed criteria although there is some overlap.

BNG assessment

Biodiversity net gain is calculated and interpreted following eight principles and rules, as defined in (Natural England, 2023a). 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, 2023d), accessed on 26th June 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; 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 creation and implementation of a bespoke 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 01/06/23 and 06/06/23

Scientific name	Common name	Habitat/s	Abundance in habitat type
Acer campestre	Field Maple	Lowland mixed deciduous woodland	O
Acer platanoides	Norway Maple	Lowland mixed deciduous woodland	O-F
Acer pseudoplatanus	Sycamore	Lowland calcareous grassland Lowland mixed deciduous woodland Mixed scrub	R-O F-A O-F
Achillea millefolium	Yarrow	Other neutral grassland Lowland mixed deciduous woodland	O O
Aegopodium podagraria	Ground Elder	Other neutral grassland Lowland mixed deciduous woodland Mixed scrub	O O F
Aesculus hippocastanum	Horse-chestnut	Lowland mixed deciduous woodland	R-F
Agrimonia eupatoria	Agrimony	Lowland calcareous grassland Lowland mixed deciduous woodland	F O
Agrostis sp.	A Bent	Other neutral grassland	O
Alliaria petiolata	Garlic Mustard	Lowland mixed deciduous woodland	O-F
Allium ursinum	Ramsons	Lowland mixed deciduous woodland Bramble scrub	O O
Angelica sylvestris	Wild Angelica	Lowland calcareous grassland	R
Anisantha sterilis	Barren Brome	Lowland calcareous grassland Other neutral grassland Lowland mixed deciduous woodland Mixed scrub	O O O-F O
Anthoxanthum odoratum	Sweet Vernal-grass	Lowland calcareous grassland	O-LA
Anthriscus sylvestris	Cow Parsley	Lowland calcareous grassland Other neutral grassland Lowland mixed deciduous woodland	O O F
Anthyllis vulneraria	Kidney Vetch	Lowland calcareous grassland	O
Aquilegia vulgaris	Columbine	Lowland mixed deciduous woodland	R
Arenaria serpyllifolia	Thyme-leaved Sandwort	Lowland calcareous grassland	O

Scientific name	Common name	Habitat/s	Abundance in habitat type
Arrhenatherum elatius	False Oat-grass	Lowland calcareous grassland Other neutral grassland Lowland mixed deciduous woodland	O A O
Arum maculatum	Lords-and-ladies	Lowland mixed deciduous woodland	R-O
Asplenium scolopendrium	Hart's-tongue	Lowland mixed deciduous woodland	O
Bellis perennis	Daisy	Lowland calcareous grassland Lowland mixed deciduous woodland	O O-LF
Betula pendula	Silver Birch	Lowland calcareous grassland Lowland mixed deciduous woodland Mixed scrub	O O-F F
Betula sp.	A Birch	Lowland calcareous grassland	R
Brachypodium sylvaticum	False-brome	Lowland calcareous grassland Other neutral grassland Lowland mixed deciduous woodland	O-F O O-F
Briza media	Quaking-grass	Lowland calcareous grassland	O-F
Bromus erectus	Upright Brome	Lowland calcareous grassland Lowland mixed deciduous woodland	F-A O-LA
Bromus hordeaceus	Soft Brome	Lowland calcareous grassland Other neutral grassland Lowland mixed deciduous woodland	O O O-LF
Bryonia dioica	White Bryony	Lowland calcareous grassland	R
Buddleja davidii	Butterfly-bush	Lowland mixed deciduous woodland	R
Calystegia sepium	Hedge Bindweed	Other neutral grassland Lowland mixed deciduous woodland	R-O O
Capsella bursa-pastoris	Shepherd's-purse	Lowland mixed deciduous woodland	LO
Cardamine hirsuta	Hairy Bitter-cress	Lowland calcareous grassland	O
Carex flacca	Glaucous Sedge	Lowland calcareous grassland	O-F
Castanea sativa	Sweet Chestnut	Lowland mixed deciduous woodland	R

Scientific name	Common name	Habitat/s	Abundance in habitat type
Centaurea nigra	Common Knapweed	Lowland calcareous grassland Other neutral grassland Lowland mixed deciduous woodland Mixed scrub	O-F O O O
Cerastium fontanum	Common Mouse-ear	Lowland calcareous grassland	O
Chamaenerion angustifolium	Rosebay Willowherb	Lowland calcareous grassland Lowland mixed deciduous woodland	O-LF O
Cirsium arvense	Creeping Thistle	Lowland calcareous grassland Other neutral grassland Lowland mixed deciduous woodland	R-O F O
Cirsium vulgare	Spear Thistle	Lowland calcareous grassland	R
Clematis vitalba	Traveller's-joy	Lowland calcareous grassland Lowland mixed deciduous woodland	O-F O-A
Convolvulus arvensis c.f.	Field Bindweed	Lowland calcareous grassland Other neutral grassland Lowland mixed deciduous woodland Mixed scrub	F F O-F F
Cornus sanguinea	Dogwood	Lowland calcareous grassland Lowland mixed deciduous woodland Mixed scrub	O-F O-A F
Corylus avellana	Hazel	Lowland mixed deciduous woodland Mixed scrub	O-F O
Cotoneaster bullatus	Hollyberry Cotoneaster	Lowland mixed deciduous woodland	O
Cotoneaster salicifolius c.f.	Willow Cotoneaster	Lowland mixed deciduous woodland	R-O
Cotoneaster sp.	A Cotoneaster	Lowland mixed deciduous woodland	R
Crataegus monogyna	Hawthorn	Lowland calcareous grassland Other neutral grassland Lowland mixed deciduous woodland Mixed scrub	O O F-A F-A
Crepis capillaris	Smooth Hawk's-beard	Lowland mixed deciduous woodland	O

Scientific name	Common name	Habitat/s	Abundance in habitat type
Crepis sp.	A Hawk's-beard	Lowland calcareous grassland Other neutral grassland	O R
Cruciata laevipes	Crosswort	Lowland calcareous grassland Mixed scrub	O-F O
Cymbalaria muralis	Ivy-leaved Toadflax	Lowland mixed deciduous woodland	O
Dactylis glomerata	Cock's-foot	Lowland calcareous grassland Other neutral grassland Lowland mixed deciduous woodland	O-A F-A O-LF
Dryopteris filix-mas	Male-fern	Lowland calcareous grassland Lowland mixed deciduous woodland	O O-F
Dryopteris sp.	A Buckler-fern	Lowland mixed deciduous woodland	O
Epilobium sp.	A Willowherb	Lowland calcareous grassland Other neutral grassland	O O
Euonymus europaeus	Spindle	Lowland mixed deciduous woodland	O-F
Eupatoria cannabina	Hemp-agrimony	Lowland calcareous grassland Lowland mixed deciduous woodland Mixed scrub	O-LA O O
Fagus sylvatica	Beech	Lowland mixed deciduous woodland	R-O
Festuca ovina agg.	Sheep's-fescue	Lowland calcareous grassland Other neutral grassland Lowland mixed deciduous woodland	O-F O LO
Ficaria verna	Lesser Celandine	Lowland mixed deciduous woodland	F
Filipendulae ulmaria	Meadowsweet	Lowland calcareous grassland Lowland mixed deciduous woodland	R-O R
Filipendulae vulgaris	Dropwort	Lowland calcareous grassland Other neutral grassland Lowland mixed deciduous woodland	F O O
Fragaria vesca	Wild Strawberry	Lowland calcareous grassland Lowland mixed deciduous woodland	O O
Fraxinus excelsior	Ash	Lowland mixed deciduous woodland Mixed scrub	O-F O

Scientific name	Common name	Habitat/s	Abundance in habitat type
Galium aparine	Cleavers	Lowland calcareous grassland Other neutral grassland Modified grassland Lowland mixed deciduous woodland	O-LF F O O-F
Galium verum	Lady's Bedstraw	Lowland calcareous grassland Lowland mixed deciduous woodland	O-F O
Geranium dissectum	Cut-leaved Crane's-bill	Lowland calcareous grassland Other neutral grassland Lowland mixed deciduous woodland	O O O
Geranium molle	Dove's-foot Crane's-bill	Other neutral grassland Lowland mixed deciduous woodland	O-F O-LF
Geranium pyrenaicum	Hedgerow Crane's-bill	Lowland mixed deciduous woodland	O
Geranium robertianum	Herb-Robert	Lowland calcareous grassland Other neutral grassland Lowland mixed deciduous woodland	O F F
Geranium sp.	A Crane's-bill	Lowland mixed deciduous woodland	O
Geum urbanum	Wood Avens	Lowland calcareous grassland Other neutral grassland Lowland mixed deciduous woodland	O-F O O-A
Glechoma hederacea	Ground-ivy	Lowland calcareous grassland Lowland mixed deciduous woodland	O O
Hedera helix	Common Ivy	Lowland calcareous grassland Lowland mixed deciduous woodland Mixed scrub	R-O A O
Helianthemum nummularium	Common Rock-rose	Lowland calcareous grassland	O
Helictochloa pratensis	Meadow Oat-grass	Lowland calcareous grassland Other neutral grassland	O-F O
Heracleum sphondylium	Hogweed	Lowland calcareous grassland Other neutral grassland Modified grassland Lowland mixed deciduous woodland	O-LF O-F O F
Hieracium sp.	Hawkweed	Lowland mixed deciduous woodland	O

Scientific name	Common name	Habitat/s	Abundance in habitat type
Hippocrepis comosa	Horseshoe Vetch	Lowland calcareous grassland Other neutral grassland Lowland mixed deciduous woodland	O-F O O
Holcus lanatus	Yorkshire-fog	Lowland calcareous grassland Other neutral grassland Lowland mixed deciduous woodland	O-F O O
Hordeum murinum	Wall Barley	Lowland mixed deciduous woodland	LO
Hyacinthoides non-scripta x hispanica = H. x massartiana	Hybrid Bluebell	Lowland calcareous grassland Lowland mixed deciduous woodland	LO O
Hypericum perforatum	Perforate St John's-wort	Lowland calcareous grassland Lowland mixed deciduous woodland	O-F O
Hypericum sp.	A St John's-wort	Lowland calcareous grassland	O
Hypochaeris radicata	Cat's-ear	Lowland calcareous grassland Lowland mixed deciduous woodland	O-F LF
Ilex aquifolium	Holly	Lowland mixed deciduous woodland	O-F
Iris sp.	An Iris	Lowland mixed deciduous woodland	R
Jacobaea erucifolia	Hoary Ragwort	Lowland calcareous grassland	O
Jacobaea sp.	A Ragwort	Lowland mixed deciduous woodland	R
Jacobaea vulgaris	Common Ragwort	Lowland calcareous grassland	O
Lactuca serriola	Prickly Lettuce	Lowland mixed deciduous woodland	O
Lactuca sp.	A Lettuce	Other neutral grassland Lowland mixed deciduous woodland	R O
Lamiastrum galeobdolon subsp. *argentatum*	Variegated Yellow Archangel	Lowland mixed deciduous woodland	LO
Lamium album	White Dead-nettle	Other neutral grassland Lowland mixed deciduous woodland	R O
Lathyrus pratensis	Meadow Vetchling	Lowland calcareous grassland Other neutral grassland Lowland mixed deciduous woodland	O O LO
Leontodon hispidus	Rough Hawkbit	Lowland calcareous grassland	O-F

Scientific name	Common name	Habitat/s	Abundance in habitat type
Leontodon sp.	A Hawkbit	Lowland calcareous grassland Lowland mixed deciduous woodland	O LO
Leucanthemum vulgare	Oxeye Daisy	Lowland calcareous grassland Lowland mixed deciduous woodland	O-F LO
Ligustrum vulgare	Wild privet	Lowland calcareous grassland Lowland mixed deciduous woodland	R O-F
Linum catharticum	Fairy Flax	Lowland calcareous grassland	R
Lolium perenne	Perennial Rye-grass	Lowland calcareous grassland Other neutral grassland Lowland mixed deciduous woodland	O F-LA O-LF
Lonicera nitidus	Wilson's Honeysuckle	Lowland mixed deciduous woodland	R
Lonicera periclymenum	Honeysuckle	Lowland mixed deciduous woodland Mixed scrub	O-F O
Lotus corniculatus	Common Bird's-foot Trefoil	Lowland calcareous grassland Lowland mixed deciduous woodland	F-A LF
Luzula campestris	Field Wood-rush	Lowland calcareous grassland	O
Medicago lupulina	Black Medick	Lowland calcareous grassland	O-F
Mercurialis perennis	Dog's Mercury	Lowland mixed deciduous woodland	O-LA
Myosotis sp.	A Forget-me-not	Other neutral grassland	O
Orchidaceae	Orchids	Lowland calcareous grassland	LO
Oreganum vulgare	Wild Marjoram	Lowland calcareous grassland Lowland mixed deciduous woodland	O-F LF
Papaver rhoeas	Common Poppy	Lowland mixed deciduous woodland	R
Pentaglottis sempervirens	Green Alkanet	Lowland calcareous grassland Lowland mixed deciduous woodland	O O
Persicaria maculosa	Redshank	Other neutral grassland	R
Pilosella officinarum	Mouse-ear Hawkweed	Lowland calcareous grassland	O-F
Plantago lanceolata	Ribwort Plantain	Lowland calcareous grassland Other neutral grassland Lowland mixed deciduous woodland	O-A O-F O-LF

Scientific name	Common name	Habitat/s	Abundance in habitat type
Plantago major	Greater Plantain	Lowland calcareous grassland Lowland mixed deciduous woodland	O O
Poa annua	Annual Meadow-grass	Lowland calcareous grassland Other neutral grassland	O-F O-F
Poa pratensis	Smooth Meadow-grass	Lowland calcareous grassland Other neutral grassland Lowland mixed deciduous woodland	O-F O LO
Poa sp.	A Meadow-grass	Other neutral grassland Lowland mixed deciduous woodland Mixed scrub	F O-LF O
Poa trivialis	Rough Meadow-grass	Lowland calcareous grassland Other neutral grassland Lowland mixed deciduous grassland	o-F O O
Polygala sp.	A Milkwort	Lowland calcareous grassland	O
Polystichum sp.	A Shield-fern	Lowland mixed deciduous woodland	O
Potentilla erecta	Tormentil	Lowland calcareous grassland	O
Potentilla repens	Creeping Cinquefoil	Lowland calcareous grassland Other neutral grassland Lowland mixed deciduous woodland	O F O
Poterium sanguisorba subsp. *sanguisorba*	Salad Burnet	Lowland calcareous grassland Lowland mixed deciduous woodland	F-A LF
Primula veris	Cowslip	Lowland calcareous grassland Lowland mixed deciduous woodland	O O
Prunella vulgaris	Selfheal	Lowland calcareous grassland	R-O
Prunus avium	Wild Cherry	Lowland mixed deciduous woodland	R-O
Prunus laurocerasus	Cherry Laurel	Lowland mixed deciduous woodland	R-F
Prunus lusitanica	Portugal Laurel	Lowland mixed deciduous woodland	R
Prunus sp.	A Plum	Lowland mixed deciduous woodland	R
Prunus spinosa	Blackthorn	Lowland mixed deciduous woodland Mixed scrub	R-O R-O

Scientific name	Common name	Habitat/s	Abundance in habitat type
Pteridium aquilinum	Bracken	Other neutral grassland	LF
Quercus robur	Pedunculate Oak	Lowland calcareous grassland Lowland mixed deciduous woodland Mixed scrub	R-O O-A F
Quercus rubra	Red Oak	Lowland mixed deciduous woodland	R
Ranunculus bulbosus	Bulbous Buttercup	Lowland calcareous grassland Other neutral grassland Lowland mixed deciduous woodland	O-F O O
Ranunculus repens	Creeping Buttercup	Lowland calcareous grassland Other neutral grassland Lowland mixed deciduous woodland	O-F F O-F
Reseda lutea	Wild Mignonette	Lowland calcareous grassland	F
Reynoutria japonica	Japanese Knotweed	Other neutral grassland	LF
Rhinanthus sp.	a Yellow-rattle	Lowland calcareous grassland Other neutral grassland	R-F O
Ribes sp.	A Currant	Lowland mixed deciduous woodland	R-O
Rosa arvensis	Field-rose	Lowland calcareous grassland Lowland mixed deciduous woodland Mixed scrub	O O-F F
Rosa canina agg.	Dog-rose	Lowland calcareous grassland Lowland mixed deciduous woodland	O-F O-F
Rosa rubiginosa	Sweet-briar	Lowland calcareous grassland	R-O
Rosa sp.	A Rose	Lowland calcareous grassland Lowland mixed deciduous woodland Mixed scrub	O-F O-F F
Rubus fruticosa agg.	Bramble	Lowland calcareous grassland Other neutral grassland Modified grassland Lowland mixed deciduous woodland Bramble scrub Mixed scrub	O-LA O-F O F-A A F
Rumex acetosa	Common Sorrel	Lowland calcareous grassland	F

Scientific name	Common name	Habitat/s	Abundance in habitat type
Rumex crispus	Curled Dock	Other neutral grassland	F
Rumex obtusifolia	Broad-leaved Dock	Lowland calcareous grassland Other neutral grassland Modified grassland Lowland mixed deciduous woodland	O O O O
Rumex sanguineus	Wood Dock	Lowland mixed deciduous woodland	O
Salix caprea	Goat Willow	Lowland mixed deciduous woodland	O
Salix cinerea	Rusty Willow	Lowland mixed deciduous woodland	O
Salix sp.	A Willow	Lowland mixed deciduous woodland Mixed scrub	R O
Sambucus nigra	Elder	Lowland mixed deciduous woodland	O-F
Sanicula europaea	Sanicle	Lowland mixed deciduous woodland	O
Scabiosa columbaria	Small Scabious	Lowland calcareous grassland Mixed scrub	O O
Schedonorus arundinaceus	Tall Fescue	Lowland calcareous grassland	LO
Schedonorus pratensis	Meadow Fescue	Lowland calcareous grassland Other neutral grassland	O O
Senecio vulgaris	Groundsel	Lowland calcareous grassland	LO
Silene dioica	Red Campion	Other neutral grassland Lowland mixed deciduous woodland	O O
Silene latifolia	White Campion	Lowland calcareous grassland	LO
Silene vulgaris	Bladder Campion	Lowland calcareous grassland	O-F
Solidago canadensis	Canadian Goldenrod	Lowland calcareous grassland	LF
Sonchus sp.	A Sow-thistle	Lowland mixed deciduous woodland	O
Sorbus aucuparia	Rowan	Lowland mixed deciduous woodland	R-O
Spiraea sp.	A Bridewort	Lowland mixed deciduous woodland	R
Stachys sylvatica	Hedge Woundwort	Lowland calcareous grassland Lowland mixed deciduous woodland	O O
Stellaria graminea	Lesser Stitchwort	Lowland calcareous grassland	LO

Scientific name	Common name	Habitat/s	Abundance in habitat type
Stellaria media	Common Chickweed	Lowland calcareous grassland	O
Symphoricarpos albus/orbiculatus	Snowberry/ Coralberry	Lowland mixed deciduous woodland	O
Symphytum asperum x officinale = S. x uplandicum	Russian Comfrey	Other neutral grassland	O
Symphytum sp.	A Comfrey	Lowland calcareous grassland	R
Taraxacum agg.	Dandelion	Lowland calcareous grassland Other neutral grassland Lowland mixed deciduous woodland	O O O-F
Taxus baccata	Yew	Lowland mixed deciduous woodland	R-O
Thymus drucei	Wild Thyme	Lowland calcareous grassland	LO
Tilia sp.	A Lime	Lowland mixed deciduous woodland Mixed scrub	R-O O
Tragopogon pratensis	Goat's-beard	Lowland mixed deciduous woodland	R
Trifolium pratense	Red Clover	Lowland calcareous grassland Lowland mixed deciduous woodland	O-F O
Trifolium repens	White Clover	Lowland calcareous grassland Other neutral grassland Lowland mixed deciduous woodland	O-F F O
Triticum aestivum	Bread Wheat	Other neutral grassland	R
Ulex europeaus	Gorse	Lowland calcareous grassland Lowland mixed deciduous woodland Mixed scrub	O R-O O
Ulmus sp.	An Elm	Lowland mixed deciduous woodland Mixed scrub	R O
Urticae dioica	Common Nettle	Lowland calcareous grassland Other neutral grassland Modified grassland Lowland mixed deciduous woodland Bramble scrub Mixed scrub	LF-LA F-LA A O-LA F O

Scientific name	Common name	Habitat/s	Abundance in habitat type
Valeriana sp.	A Valerian	Lowland calcareous grassland	R
Veronica chamaedrys	Germander Speedwell	Lowland calcareous grassland Other neutral grassland Lowland mixed deciduous woodland	O-F O-F O
Veronica montana	Wood Speedwell	Lowland mixed deciduous woodland	O-F
Veronica officinalis	Heath Speedwell	Lowland calcareous grassland	O
Viburnum lantana	Wayfaring-tree	Lowland mixed deciduous woodland Mixed scrub	R-O O
Vicia sativa	Common Vetch	Lowland calcareous grassland Other neutral grassland Lowland mixed deciduous woodland	O O O

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
- *Nyctalus leisleri* – Leisler's Bat
- *Nyctalus noctula* – Noctule
- *Pipistrellus nathusii* – Nathusius' Pipistrelle
- *Pipistrellus pipistrellus* – Common Pipstrelle
- *Plecotus auritus* – Brown Long-eared

Birds

- *Alauda arvensis* – Skylark
- *Anthus trivialis* – Tree Pipit
- *Columba palumbus* – Woodpigeon
- *Corvus corone* – Carrion Crow
- *Cuculus canorus* – Cuckoo
- *Emberiza citrinella* – Yellowhammer
- *Falco subbuteo* – Hobby
- *Loxia curvirostra* – Common Crossbill
- *Parus major* – Great Tit
- *Pica pica* – Magpie
- *Turdus iliacus* – Redwing
- *Turdus philomelos* – Song Thrush
- *Turdus pilaris* – Fieldfare
- *Vanellus vanellus* – Lapwing

Mammals (except bats)

- *Arvicola amphibius* – European Water Vole
- *Erinaceus europaeus* – West European Hedgehog
- *Lutra lutra* – European Otter
- *Meles meles* – Eurasian Badger
- *Muscardinus avellanarius* – Hazel Dormouse
- *Mustela putorius* – Polecat
- *Oryctolagus cuniculus* – Rabbit

Reptiles

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

Invertebrates

- *Acronicta psi* – Grey Dagger
- *Agelena labyrinthica* – Labyrinth Spider
- *Bombus lucorum/terrestris* – White/Buff-tailed Bumblebee
- *Bombus pascuorum* – Common Carder Bee
- Coenonympha pamphilus – Small Heath
- *Cupido minimus* – Small Blue
- *Erynnis tages* – Dingy Skipper
- *Gonepteryx rhamni* – Brimstone
- *Helix pomatia* – Roman Snail
- *Lampyris noctiluca* – Glow-worm
- *Limenitis camilla* – White Admiral
- *Pararge aegeria* – Speckled Wood
- *Polyommatus coridon* – Chalk Hill Blue
- *Polyommatus icarus* – Common Blue
- *Pyrgus malvae* – Grizzled Skipper
- *Satyrium w-album* – White-letter Hairstreak
- *Speyeria aglaja* – Dark Green Fritillary
- *Thecla betulae* – Brown Hairstreak
- *Tyria jacobaeae* – Cinnabar
- *Vanessa atalanta* – Red Admiral

Appendix 5: Habitat condition forms

Habitat	Compartment number	Condition	Justification Invalid source specified.		
			Criteria	Score	Comment
Lowland calcareous grassland **Habitat Code: g2a**	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	Upright Brome grassland with numerous calcareous indicator species.
			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	Mixed sward overall, with areas more grazed by Rabbits or trampled by walkers, and taller tussocky areas.
			Cover of bare ground is between 1% and 5%, including localised areas, for example, Rabbit warrens	Pass	Just falls within threshold.
			Cover of Bracken is less than 20% and cover of scrub (including bramble) is less than 5%	Pass	No Bracken recorded. Scrub <5% although will required continued management.
			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 Schedule 9 species, little to no sub-optimal species, no signs of damage.
			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). **This criterion is vital for achieving good condition**	Pass	Averages 14.8 over five quadrats.
Lowland calcareous grassland	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	Upright Brome grassland with numerous calcareous indicator species.

Habitat	Compartment number	Condition	**Justification**Invalid source specified.		
			Criteria	**Score**	**Comment**
Habitat Code: g2a			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	Mixed sward overall, with areas more grazed by Rabbits or trampled by walkers, and taller tussocky areas.
			Cover of bare ground is between 1% and 5%, including localised areas, for example, Rabbit warrens	Fail	>5% due to Rabbit activity and footpaths.
			Cover of Bracken is less than 20% and cover of scrub (including bramble) is less than 5%	Pass	No Bracken recorded. Scrub <5% although will required continued management.
			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	>5% cover caused by ruderal swathes.
			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). **This criterion is vital for achieving good condition**	Pass	Averages 16.6 over five quadrats.
Lowland calcareous grassland **Habitat Code: g2a**	1.3	**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	Pass	Upright Brome grassland with numerous calcareous indicator species.
			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	Mixed sward overall, with areas more grazed by Rabbits or trampled by walkers, and taller tussocky areas.
			Cover of bare ground is between 1% and 5%, including localised areas, for example, Rabbit warrens	Fail	>5% due to Rabbit activity and footpaths.

Habitat	Compartment number	Condition	**Justification**Invalid source specified.		
			Criteria	**Score**	**Comment**
			Cover of Bracken is less than 20% and cover of scrub (including bramble) is less than 5%	Fail	Scrub >5%.
			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	>5% cover caused by ruderal swathes.
			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). **This criterion is vital for achieving good condition**	Pass	Averages 13.75 over four quadrats.
Lowland calcareous grassland **Habitat Code: g2a**	1.4	**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	Upright Brome grassland with numerous calcareous indicator species.
			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	Mixed sward overall, with areas more grazed by Rabbits or trampled by walkers, and taller tussocky areas.
			Cover of bare ground is between 1% and 5%, including localised areas, for example, Rabbit warrens	Pass	Just falls within threshold.
			Cover of Bracken is less than 20% and cover of scrub (including bramble) is less than 5%	Pass	No Bracken recorded. Scrub <5% although will required continued management.
			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	Pass	No Schedule 9 species, little to no sub-optimal species, no signs of damage.

Habitat	Compartment number	Condition	**Justification**Invalid source specified.		
			Criteria	**Score**	**Comment**
			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.		
			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). **This criterion is vital for achieving good condition**	Pass	Averages 13.25 over five quadrats.
Lowland calcareous grassland **Habitat Code: g2a**	1.5	**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	Upright Brome grassland with numerous calcareous indicator species.
			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	Mixed sward overall, with areas more grazed by Rabbits or trampled by walkers, and taller tussocky areas.
			Cover of bare ground is between 1% and 5%, including localised areas, for example, Rabbit warrens	Pass	Just falls within threshold.
			Cover of Bracken is less than 20% and cover of scrub (including bramble) is less than 5%	Fail	Scrub >5%
			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	Common Nettle >5%.

Habitat	Compartment number	Condition	**Justification**Invalid source specified.		
			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). **This criterion is vital for achieving good condition**	Fail	Averages 9.8 over five quadrats.
Lowland calcareous grassland **Habitat Code: g2a**	1.6	**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	Upright Brome grassland with numerous calcareous indicator species.
			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	Just on threshold.
			Cover of bare ground is between 1% and 5%, including localised areas, for example, Rabbit warrens	Fail	>5% due to Rabbit activity and footpaths.
			Cover of Bracken is less than 20% and cover of scrub (including bramble) is less than 5%	Fail	Scrub >5%.
			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	Excessive damage, trampling and cotoneaster present.
			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). **This criterion is vital for achieving good condition**	Pass	Averages 10 over five quadrats.

Habitat	Compartment number	Condition	**Justification**Invalid source specified.		
			Criteria	**Score**	**Comment**
Lowland calcareous grassland **Habitat Code: g2a**	1.7	**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	Upright Brome grassland with numerous calcareous indicator species.
			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	Just on threshold.
			Cover of bare ground is between 1% and 5%, including localised areas, for example, Rabbit warrens	Fail	>5% cue to motorbike damage.
			Cover of Bracken is less than 20% and cover of scrub (including bramble) is less than 5%	Fail	Scrub >5%.
			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	Excessive damage due to motorbikes.
			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). **This criterion is vital for achieving good condition**	Pass	Averages >10.
Other neutral grassland	1.8	**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	Appears to be on the cusp of modified grassland, and the substrate indicates it should be calcareous grassland.

Habitat	Compartment number	Condition	**Justification**Invalid source specified.		
			Criteria	**Score**	**Comment**
Habitat Code: g3c			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	Short sward along path, with bounding taller swards.
			Cover of bare ground is between 1% and 5%, including localised areas, for example, Rabbit warrens	Pass	<5%.
			Cover of Bracken is less than 20% and cover of scrub (including bramble) is less than 5%	Fail	Scrub >5%.
			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	Suboptimal species >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). **This criterion is vital for achieving good condition**	Fail	Averages 6 over one quadrat.
Other neutral grassland **Habitat Code: g3c**	1.9	**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	Appears to be on the cusp of calcareous grassland, and the substrate indicates that it should be.
			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	Mainly short sward due to damage.
			Cover of bare ground is between 1% and 5%, including localised areas, for example, Rabbit warrens	Fail	>5% by a significant amount due to damage.

Habitat	Compartment number	Condition	**Justification**Invalid source specified.		
			Criteria	**Score**	**Comment**
			Cover of Bracken is less than 20% and cover of scrub (including bramble) is less than 5%	Pass	No Bracken, scrub <5%.
			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	Large amount of damage from burning.
			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). **This criterion is vital for achieving good condition**	Fail	Averages ~9.
Other neutral grassland **Habitat Code: g3c**	1.10	**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	False Oat-grass grassland.
			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	Well mixed.
			Cover of bare ground is between 1% and 5%, including localised areas, for example, Rabbit warrens	Fail	>5%.
			Cover of Bracken is less than 20% and cover of scrub (including bramble) is less than 5%	Pass	Meets both thresholds.
			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	Fail	Japanese Knotweed.

Habitat	Compartment number	Condition	**Justification**Invalid source specified.		
			Criteria	**Score**	**Comment**
			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.		
			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). **This criterion is vital for achieving good condition**	Fail	Averages 7 over five quadrats.
Modified grassland – *Tall forbs* **Habitat Code: g4-16**	1.11	**Poor**	Vegetation structure is varied, providing opportunities for vertebrates and invertebrates to live, eat and breed. A single structural habitat component or vegetation type does not account for more than 80% of the total habitat area.	Fail	Mainly single level tall ruderal.
			The habitat parcel contains different plant species that are beneficial for wildlife, for example flowering species providing nectar sources for a range of invertebrates at different times of year.	Fail	Few species.
			Invasive non-native plant species (listed on Schedule 9 of WCA) and others which are to the detriment of native wildlife (using professional judgement) cover less than 5% of the total vegetated area. **To achieve good condition, this criterion must be satisfied by a complete absence of invasive non-native species (rather than <5% cover).**	Pass	Meets thresholds.
Lowland mixed deciduous woodland **Habitat Code: w1f**	2.1	**Moderate**	Age distribution of trees	3	All present.
			Wild, domestic and feral herbivore damage	3	No significant evidence present.
			Invasive plant species	1	Cherry Laurel present, Variegated Yellow-archangel present <40%.
			Number of native tree species	3	>5 native trees and shrubs.
			Cover of native tree and shrub species	3	~2-5% non-native.

Habitat	Compartment number	Condition	**Justification**Invalid source specified.		
			Criteria	**Score**	**Comment**
			Open space within woodland	1	<10% of woodland has temporary open space.
			Woodland regeneration	3	Regeneration evidence abundant.
			Tree health	1	Ash dieback is present, Oak processionary moth present.
			Vegetation and ground flora	2	Mix of W8 and W10 NVC communities.
			Woodland vertical structure	3	Complex.
			Veteran trees	1	No veteran trees observed. Will likely form over time as Oaks and Sycamores continue to age.
			Amount of dead wood	3	Deadwood abundant.
			Woodland disturbance	2	There will be nutrient enrichment caused by dog fouling in the areas bounding footpaths.
			Total	**29**	
Lowland mixed deciduous woodland **Habitat Code: w1f**	2.2	**Moderate**	Age distribution of trees	3	All present.
			Wild, domestic and feral herbivore damage	3	No significant evidence present.
			Invasive plant species	1	Cherry Laurel present.
			Number of native tree species	3	>5 native trees and shrubs.
			Cover of native tree and shrub species	3	<5% non-native.
			Open space within woodland	1	<10% of woodland has temporary open space.
			Woodland regeneration	3	Regeneration evidence abundant.
			Tree health	1	Ash dieback is present, Oak processionary moth present.
			Vegetation and ground flora	2	W10 NVC community.

Habitat	Compartment number	Condition	**Justification**Invalid source specified.		
			Criteria	**Score**	**Comment**
			Woodland vertical structure	3	Complex.
			Veteran trees	1	No veteran trees observed. Will likely form over time as Oaks and Sycamores continue to age.
			Amount of dead wood	3	Deadwood abundant.
			Woodland disturbance	2	There will be nutrient enrichment caused by dog fouling in the areas bounding footpaths.
			Total	**29**	
Lowland mixed deciduous woodland **Habitat Code: w1f**	2.3	**Moderate**	Age distribution of trees	3	All present.
			Wild, domestic and feral herbivore damage	3	No significant evidence present.
			Invasive plant species	1	Cherry Laurel present.
			Number of native tree species	3	>5 native trees and shrubs.
			Cover of native tree and shrub species	3	<5% non-native.
			Open space within woodland	3	10-20% open.
			Woodland regeneration	3	Regeneration evidence abundant.
			Tree health	1	Ash dieback is present, Oak processionary moth present.
			Vegetation and ground flora	2	Mix of W8 and W10 NVC communities.
			Woodland vertical structure	3	Complex.
			Veteran trees	2	Some Oaks with veteran features present in low numbers.
			Amount of dead wood	3	Deadwood abundant.

Habitat	Compartment number	Condition	**Justification**Invalid source specified.		
			Criteria	**Score**	**Comment**
			Woodland disturbance	2	There will be nutrient enrichment caused by dog fouling in the areas bounding footpaths.
			Total	**32**	
Lowland mixed deciduous woodland **Habitat Code: w1f**	2.4	Moderate	Age distribution of trees	3	All present.
			Wild, domestic and feral herbivore damage	3	No significant evidence present.
			Invasive plant species	1	Cherry Laurel present.
			Number of native tree species	3	>5 native trees and shrubs.
			Cover of native tree and shrub species	3	<5% non-native.
			Open space within woodland	3	10-20% open.
			Woodland regeneration	3	Regeneration evidence abundant.
			Tree health	1	Ash dieback is present, Oak processionary moth present.
			Vegetation and ground flora	2	Mix of W8 and W10 NVC communities.
			Woodland vertical structure	3	Complex.
			Veteran trees	2	Some Oaks with veteran features present in low numbers.
			Amount of dead wood	3	Deadwood abundant.
			Woodland disturbance	2	There will be nutrient enrichment caused by dog fouling in the areas bounding footpaths.
			Total	**32**	
Lowland mixed	2.5	Moderate	Age distribution of trees	2	Two present (no old).
			Wild, domestic and feral herbivore damage	3	No significant evidence present.

Habitat	Compartment number	Condition	Justification Invalid source specified.		
			Criteria	Score	Comment
deciduous woodland **Habitat Code: w1f**			Invasive plant species	1	Cherry Laurel present.
			Number of native tree species	3	>5 native trees and shrubs.
			Cover of native tree and shrub species	3	<5% non-native.
			Open space within woodland	3	<10ha.
			Woodland regeneration	3	Regeneration evidence abundant.
			Tree health	1	Ash dieback is present, Oak processionary moth present.
			Vegetation and ground flora	1	Ivy and leaf litter predominate.
			Woodland vertical structure	3	Complex.
			Veteran trees	1	None present.
			Amount of dead wood	3	Deadwood abundant.
			Woodland disturbance	2	Likely influenced by road runoff.
			Total	**29**	
Lowland mixed deciduous woodland **Habitat Code: w1f**	2.6	Moderate	Age distribution of trees	3	All present.
			Wild, domestic and feral herbivore damage	3	No significant evidence present.
			Invasive plant species	1	Cherry Laurel present.
			Number of native tree species	3	>5 native trees and shrubs.
			Cover of native tree and shrub species	3	<5% non-native.
			Open space within woodland	3	<10ha.
			Woodland regeneration	3	Regeneration evidence abundant.

Habitat	Compartment number	Condition	**Justification**Invalid source specified.		
			Criteria	**Score**	**Comment**
			Tree health	1	Ash dieback is present, Oak processionary moth present.
			Vegetation and ground flora	1	Ivy and leaf litter predominate.
			Woodland vertical structure	3	Complex.
			Veteran trees	1	None present.
			Amount of dead wood	3	Deadwood abundant.
			Woodland disturbance	2	Likely influenced by road runoff.
			Total	**30**	
Lowland mixed deciduous woodland **Habitat Code: w1f**	2.7	Moderate	Age distribution of trees	3	All present.
			Wild, domestic and feral herbivore damage	3	No significant evidence present.
			Invasive plant species	1	Cherry Laurel present, and hollyberry cotoneaster.
			Number of native tree species	3	>5 native trees and shrubs.
			Cover of native tree and shrub species	3	<5% non-native.
			Open space within woodland	3	<10ha.
			Woodland regeneration	3	Regeneration evidence abundant.
			Tree health	1	Ash dieback is present, Oak processionary moth present.
			Vegetation and ground flora	2	Mix of W8 and W10 NVC communities.
			Woodland vertical structure	3	Complex.
			Veteran trees	1	None recorded.
			Amount of dead wood	3	Deadwood abundant.

Habitat	Compartment number	Condition	Justification Invalid source specified.		
			Criteria	Score	Comment
			Woodland disturbance	2	Likely influenced by road runoff.
			Total	**31**	
Lowland mixed deciduous woodland **Habitat Code: w1f**	2.8	**Good**	Age distribution of trees	3	All present.
			Wild, domestic and feral herbivore damage	3	No significant evidence present.
			Invasive plant species	2	Cherry Laurel not recorded. Other invasive non-native species present.
			Number of native tree species	3	>5 native trees and shrubs.
			Cover of native tree and shrub species	3	<5% non-native.
			Open space within woodland	3	<10ha.
			Woodland regeneration	3	Regeneration evidence abundant.
			Tree health	1	Ash dieback is present, Oak processionary moth present.
			Vegetation and ground flora	2	Mix of W8 and W10 NVC communities.
			Woodland vertical structure	3	Complex.
			Veteran trees	2	Some Oaks with veteran features.
			Amount of dead wood	3	Deadwood abundant.
			Woodland disturbance	2	Likely influenced by road runoff.
			Total	**33**	
Lowland mixed deciduous woodland	2.9	Moderate	Age distribution of trees	2	Two present (no old).
			Wild, domestic and feral herbivore damage	3	No significant evidence present.
			Invasive plant species	1	Cherry Laurel present alongside other invasive non-native species.

Habitat	Compartment number	Condition	**Justification**Invalid source specified.		
			Criteria	**Score**	**Comment**
Habitat Code: w1f			Number of native tree species	3	>5 native trees and shrubs.
			Cover of native tree and shrub species	3	<5% non-native.
			Open space within woodland	3	<10ha.
			Woodland regeneration	3	Regeneration evidence abundant.
			Tree health	1	Ash dieback is present, Oak processionary moth present.
			Vegetation and ground flora	2	Mix of W8 and W10 NVC communities.
			Woodland vertical structure	3	Complex.
			Veteran trees	2	Some Oaks with veteran features.
			Amount of dead wood	3	Deadwood abundant.
			Woodland disturbance	2	There will be nutrient enrichment caused by dog fouling in the areas bounding footpaths.
			Total	**31**	
Mixed scrub **Habitat Code: h3h**	3.2-3.6	**Good**	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, common juniper, sea buckthorn or box, which can be up to 100% cover).	Pass	>10 native woody species.
			Seedlings, saplings, young shrubs and mature (or ancient or veteran) shrubs are all present.	Pass	A mixture of all of these.

Habitat	Compartment number	Condition	**Justification**Invalid source specified.		
			Criteria	**Score**	**Comment**
			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	None 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	Clearly defined.
			There are clearings, glades or rides present within the scrub, providing sheltered edges.	Pass	Clearings and glades are present within and between parcels.
Mixed scrub **Habitat Code: h3h**	3.7-3.8	**Good**	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, common juniper, sea buckthorn or box, which can be up to 100% cover).	Pass	>5 native woody species.
			Seedlings, saplings, young shrubs and mature (or ancient or veteran) shrubs are all present.	Pass	A mixture of all of these.
			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	None 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	Clearly defined.
			There are clearings, glades or rides present within the scrub, providing sheltered edges.	Pass	Clearings and glades are present within and between parcels.
	3.9	**Good**	The scrub is a good representation of the habitat type it has been identified as, based on its UKHab description (where in its natural	Pass	>5 native woody species.

Habitat	Compartment number	Condition	**Justification**Invalid source specified.		
			Criteria	**Score**	**Comment**
Mixed scrub **Habitat Code: h3h**			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, common juniper, sea buckthorn or box, which can be up to 100% cover).		
			Seedlings, saplings, young shrubs and mature (or ancient or veteran) shrubs are all present.	Pass	A mixture of all of these.
			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	None 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	Clearly defined.
			There are clearings, glades or rides present within the scrub, providing sheltered edges.	Pass	Clearings and glades are present within and between parcels.

Appendix 6: Relevant legislation

Legislation

Metropolitan Commons 1866, Metropolitan Commons (Banstead) Supplementary Act 1893 and the 2006 Common Land Act

These Acts cover the four commons; Banstead Downs, Banstead Heath, Burgh Heath and Park Downs.

The Metropolitan Commons (Banstead) Supplemental Act 1893 gives power to the Banstead Commons Conservators to manage the land and 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

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 [1]	WCA[2]	Protection of Badgers Act 1992	SPI[3]	RDL/ Nationally Rare/ Scarce[4]	BoCC[5]	Ax[6]	AWI[7]	GI[8]	Relevant HPI
Invertebrate											
Andrena marginata	Small Scabious Mining Bee					✓					Heathland, calcareous grasslands.
Andrena minutuloides	Plain Mini-miner					✓					Calcareous grassland, meadows.
Bombus rupestris	Red-tailed Cuckoo Bee					✓					Various.
Chrysis gracilima	A Cuckoo Wasp					✓					Heathland, acid grassland.
Chrysis illigeri	A Ruby-tailed Wasp					✓					Heathland, acid grassland.
Coenonympha pamphilus	Small Heath				✓	✓					Heathland, acid grassland, calcareous grassland.
Cryptocephalus hypochaeridis	A Pot Beetle					✓					Calcareous grassland.
Cupido minimus	Small Blue		Sch 5 Section 9.5a		✓	✓					Calcareous grassland.
Erynnis tages	Dingy Skipper				✓	✓					Calcareous grassland, mixed deciduous woodland.
Helix (Helix) pomatia	Roman Snail		Sch 5 Section 9.1, 9.2, 9.5a			✓					Calcareous grassland.
Hylaeus cornutus	Spined Hylaeus					✓					Calcareous grassland, various.
Hylaeus signatus	Large Yellow-face Bee					✓					Calcareous grassland, urban.
Lasioglossum malachurum	Sharp-collared Furrow-bee					✓					Various.
Lasioglossum pauxillum	Lobe-spurred Furrow-bee					✓					Acid grassland, calcareous grassland.
Leptogaster guttiventris	Dashed Slender Robberfly					✓					
Melitta tricincta	Red Bartsia Blunthorn Bee					✓					Calcareous grassland (on *Odontites*).
Myopa pellucida	A Thick-headed Fly					✓					
Nomada fucata	Painted Nomad Bee					✓					Various.
Osmia bicolor	Red-tailed Mason Bee					✓					Calcareous grassland.
Philanthus triangulum	Bee Wolf					✓					
Polyommatus coridon	Chalk Hill Blue		Sch 5 Section 9.5a			✓					
Priocnemis agilis	A Spider-hunting Wasp					✓					Heathland, acid grassland, calcareous grassland.
Pyrgus malvae	Grizzled Skipper				✓	✓					Calcareous grassland, mixed deciduous woodland.
Satyrium w-album	White-letter Hairstreak		Sch 5 Section 9.5a		✓	✓					Mixed deciduous woodland, hedgerows.
Solva marginata	Drab Wood-soldierfly					✓					Various (on *Populus).*
Stelis punctulatissima	Banded Dark Bee					✓					Various.
Thecla betulae	Brown Hairstreak		Sch 5 Section 9.5a		✓	✓					Hedgerows, mixed deciduous woodland.
Thereva plebeja	Crochet-hooked Stiletto					✓					Various
Bird											

Scientific name	Common Name	Habitat Regulations [1]	WCA[2]	Protection of Badgers Act 1992	SPI[3]	RDL/ Nationally Rare/ Scarce[4]	BoCC[5]	Ax[6]	AWI[7]	GI[8]	Relevant HPI
Accipiter nisus	Eurasian Sparrowhawk					✓	Amber				
Columba palumbus	Wood Pigeon					✓	Amber				Various.
Falco tinnunculus	Common Kestrel					✓	Amber				Various.
Passer domesticus	House Sparrow				✓		Red				Urban, hedgerows.
Phylloscopus trochilus	Willow Warbler						Amber				Heathland, wet woodland.
Prunella modularis	Dunnock						Amber				Various.
Pyrrhula pyrrhula	Bullfinch						Amber				
Sturnus vulgaris	Common Starling					✓	Red				Urban.
Troglodytes troglodytes	Wren						Amber				
Turdus iliacus	Redwing		Sch 1 Part 1			✓	Amber				Various.
Turdus philomelos	Song Thrush						Amber				Various.
Turdus pilaris	Fieldfare		Sch 1 Part 1			✓	Red				Various.
Higher and Lower Plants; Vascular Plant											
Allium schoenoprasum	Chives					✓		✓			
Anacamptis morio	Green-winged Orchid					✓		✓		✓	
Arabis hirsute	Hairy Rock-cress					✓		✓		✓	
Briza media	Quaking-grass					✓		✓		✓	
Calluna vulgaris	Heather					✓		✓		✓	
Campanula rotundifolia	Harebell					✓		✓		✓	
Carlina vulgaris	Carline Thistle					✓		✓		✓	
Centaurea cyanus	Cornflower				✓			✓			
Cerastium pumilum	Dwarf Mouse-ear					✓		✓		✓	
Clinopodium acinos	Basil Thyme				✓	✓		✓		✓	
Euphrasia nemorosa	Common Eyebright					✓		✓		✓	
Euphrasia pseudokerneri	Chalk Eyebright				✓	✓		✓		✓	
Filago pyramidata	Broad-leaved Cudweed		Sch 8		✓	✓		✓		✓	
Gentianella amarella	Autumn Gentian					✓		✓		✓	
Gentianella amarella subsp. amarella	Autumn Gentian					✓		✓		✓	
Gentianella anglica	Early Gentian	Sch 5	Sch 8		✓						
Helianthemum nummularium	Common Rock-rose					✓		✓		✓	
Hieracium sabaudum	Autumn Hawkweed					✓				✓	
Hyoscyamus niger	Henbane					✓		✓			
Juniperus communis	Juniper				✓	✓		✓			
Juniperus communis subsp. communis	Common Juniper					✓		✓			
Knautia arvensis	Field Scabious					✓		✓		✓	

Scientific name	Common Name	Habitat Regulations [1]	WCA [2]	Protection of Badgers Act 1992	SPI [3]	RDL/ Nationally Rare/ Scarce [4]	BoCC [5]	Ax [6]	AWI [7]	GI [8]	Relevant HPI
Lepidium campestre	Field Pepperwort					✓		✓			
Mentha suaveolens	Round-leaved Mint					✓		✓			
Orchis anthropophora	Man Orchid				✓	✓		✓		✓	
Phyteuma orbiculare	Round-headed Rampion					✓		✓		✓	
Plantago media	Hoary Plantain					✓		✓		✓	
Potentilla erecta	Tormentil					✓		✓		✓	
Potentilla erecta subsp. erecta	Tormentil					✓					
Rhinanthus angustifolius	Greater Yellow-rattle		Sch 8			✓		✓		✓	
Rubus britannicus	A Bramble					✓					
Sagina nodosa	Knotted Pearlwort					✓		✓		✓	
Sanicula europaea	Sanicle					✓		✓	✓		
Solidago virgaurea	Goldenrod					✓		✓	✓	✓	
Thesium humifusum	Bastard-toadflax					✓		✓		✓	
Valeriana officinalis	Common Valerian					✓		✓		✓	
Veronica officinalis	Heath Speedwell					✓		✓		✓	
Viola canina	Heath Dog-violet					✓		✓			
Invasive Non-native Species											
Allium triquetrum	Three-cornered Garlic		Sch 9 Part 2 (England & Wales only)								
Cotoneaster simonsii	Himalayan Cotoneaster		Sch 9 Part 2 (England & Wales only)								
Crocosmia x crocosmiiflora	Montbretia		Sch 9 Part 2 (England & Wales only)								
Lamiastrum galeobdolon subsp. argentatum	Variegated Yellow Archangel		Sch 9 Part 2 (England & Wales only)								
Psittacula krameria	Ring-necked Parakeet		Sch 9 Part 1								
Reynoutria japonica	Japanese Knotweed		Sch 9 Part 2								
Sciurus carolinensis	Eastern Grey Squirrel		Sch 9 Part 1								

Additional records from within 1km of site

Scientific name	Common Name	Habitat Regulations [1]	WCA [2]	Protection of Badgers Act 1992	SPI [3]	RDL/ Nationally Rare/ Scarce [4]	BoCC [5]	Ax [6]	AWI [7]	GI [8]	Relevant HPI
Invertebrate											
Andrena bimaculate	Large Gorse Mining Bee					✓					Acid grassland.
Andrena tibialis	Grey-gastered Mining Bee					✓					Various.
Andrena varians	Blackthorn Mining Bee					✓					Various.

Scientific name	Common Name	Habitat Regulations[1]	WCA[2]	Protection of Badgers Act 1992	SPI[3]	RDL/ Nationally Rare/ Scarce[4]	BoCC[5]	Ax[6]	AWI[7]	GI[8]	Relevant HPI
Apamea remissa	Dusky Brocade				✓						Various.
Asilus crabroniformis	Hornet Robberfly				✓						Acid grassland, calcareous grassland, heathland.
Cheilosia barbata	Parsnip Cheilosia					✓					Mixed deciduous woodland.
Cheilosia cynocephala	Musk-thistle Cheilosia					✓					
Chrysotoxum elegans	Variable Wasp Hoverfly					✓					Calcareous grassland, meadows.
Ennomos fuscantaria	Dusky Thorn				✓						Mixed deciduous woodland.
Gymnosoma rotundatum	A parasitic fly					✓					
Hemitrichapion relfexum	A Clover Weevil					✓					
Lasioglossum xanthopus	Orange-footed Furrow Bee					✓					Calcareous grassland.
Lucanus cervus	Stag Beetle		Sch 5 Section 9.5a		✓	✓					Various, wood pasture and parkland.
Microdynerus exilis	Little Mason Wasp					✓					Various.
Nysson trimaculatus	Six-spotted Wasp-cuckoo					✓					Acid grassland, calcareous grassland.
Protapion filirostre	A Clover Weevil					✓					
Sciocoris (Sciocoris) cursitans	Sandrunner					✓					Calcareous grassland, acid grassland.
Scotopteryx chenopodiata	Shaded Broad-bar				✓						Various.
Spilosoma lubricipeda	White Ermine				✓						Various.
Tychius schneideri	A true Weevil					✓					
Tyria jacobaeae	Cinnabar				✓						
Amphibian											
Bufo bufo	Common Toad		Sch 5 Section 9.5a		✓	✓					Various wetlands.
Lissotriton vulgaris	Smooth Newt		Sch 5 Section 9.5a								
Rana temporaria	Common Frog		Sch 5 Section 9.5a								
Triturus cristatus	Great Crested Newt	Sch 2	Sch 5 Section 9.4b-c, 9.5a		✓						
Reptile											
Natrix helvetica	Grass snake		Sch 5 Section 9.1 (kill/ injuring), 9.5a		✓						Various.
Zootoca vivipara	Common Lizard		Sch 5 Section 9.1 (kill/ injuring), 9.5a		✓						Various.
Bird											
Acanthis flammea	Redpoll					✓	Red				Woodland.
Alauda arvensis	Skylark				✓		Red				Calcareous grassland, acid grassland, arable field margins.
Anas platyrhynchos	Mallard					✓	Amber				
Anthus pratensis	Meadow Pipit						Amber				Heathland, acid grassland, meadows.
Anthus trivialis	Tree Pipit				✓		Red				Heathland.
Apus apus	Common Swift					✓	Red				Urban
Ardea cinerea	Grey Heron					✓					

Scientific name	Common Name	Habitat Regulations[1]	WCA[2]	Protection of Badgers Act 1992	SPI[3]	RDL/ Nationally Rare/ Scarce[4]	BoCC[5]	Ax[6]	AWI[7]	GI[8]	Relevant HPI
Chloris chloris	Greenfinch					✓	Red				
Chroicocephalus ridibundus	Black-headed Gull					✓	Amber				
Columba oenas	Stock Dove						Amber				
Corvus frugilegus	Rook					✓	Amber				
Cuculus canorus	Common Cuckoo				✓	✓	Red				Various.
Curruca communis	Common Whitethroat						Amber				
Delichon urbicum	House Martin					✓	Red				Urban, standing water.
Dryobates minor	Lesser Spotted Woodpecker					✓	Red				Mixed deciduous woodland, wet woodland, wood pasture and parkland.
Emberiza citronella	Yellowhammer				✓		Red				Hedgerows, arable field margins, heathland.
Emberiza schoeniclus	Reed Bunting				✓		Amber				
Falco Subbuteo	Hobby		Sch 1 Part 1								Heathland, mixed deciduous woodland
Larus argentatus	Herring Gull					✓	Red				Various.
Larus canus	Common Gull						Amber				Standing water, rivers.
Larus marinus	Great Black-backed Gull					✓	Amber				Standing water, rivers.
Linaria cannabina	Linnet					✓	Red				Heathland, hedgerows, arable field margins.
Loxia curvirostra	Common Crossbill		Sch 1 Part 1			✓					Heathland.
Motacilla cinerea	Grey Wagtail					✓	Amber				Rivers, standing water.
Phalacrocorax carbo	Great Cormorant					✓					
Poecile palustris	Marsh Tit					✓	Red				Mixed deciduous woodland.
Streptopelia decaocto	Collared Dove					✓					
Strix aluco	Tawny Owl					✓	Amber				Mixed deciduous woodland, wood pasture and parkland.
Turdus viscivorus	Mistle Thrush					✓	Red				Mixed deciduous woodland, wood pasture and parkland.
Vanellus vanellus	Northern Lapwing				✓	✓	Red				Floodplain grazing marsh, standing water, arable field margins.
Mammal											
Chiroptera	A Bat	Sch 2	Sch 5 Section 9.4b-c, 9.5a								
Eptesicus serotinus	Serotine	Sch 2	Sch 5 Section 9.4b-c, 9.5a			✓					Mixed deciduous woodland, wood pasture and parkland, urban.
Erinaceus europaeus	West European Hedgehog				✓	✓					Urban and gardens, improved grassland, arable and horticulture, broadleaved woodland, coniferous woodland, unimproved grassland.
Mustela putorius	Polecat	Sch 4			✓						All habitats.
Myotis sp.	A Myotis	Sch 2	Sch 5 Section 9.4b-c, 9.5a								Various.
Nyctalus leisleri	Lesser Noctule	Sch 2	Sch 5 Section 9.4b-c, 9.5a			✓					
Nyctalus noctula	Noctule	Sch 2	Sch 5 Section 9.4b-c, 9.5a		✓						
Pipistrellus sp.	A Pipistrelle	Sch 2	Sch 5 Section 9.4b-c, 9.5a								

Scientific name	Common Name	Habitat Regulations[1]	WCA[2]	Protection of Badgers Act 1992	SPI[3]	RDL/ Nationally Rare/ Scarce[4]	BoCC[5]	Ax[6]	AWI[7]	GI[8]	Relevant HPI
Pipistrellus nathusii	Nathusius' Pipistrelle	Sch 2	Sch 5 Section 9.4b-c, 9.5a			✓					
Plecotus auritus	Brown Long-eared	Sch 2	Sch 5 Section 9.4b-c, 9.5a		✓						Various.
Higher and Lower Plants; Vascular Plant											
Apera spica-venti	Loose Silky-bent					✓		✓			
Buxus sempervirens	Box					✓		✓			
Cephalanthera damsonium	White Helleborine				✓	✓		✓			
Chamaemelum nobile	Chamomile				✓	✓		✓		✓	
Cichorium intybus	Chicory					✓		✓		✓	
Cynodont dactylon	Bermuda-grass					✓		✓			
Epipactis phyllanthes	Green-flowered Helleborine					✓		✓			
Euphorbia exigua	Dwarf Spurge					✓		✓			
Geranium sanguineum	Bloody Crane's-bill					✓					
Glebionis segetum	Corn Marigold					✓		✓			
Helleborus foetidus	Stinking Hellebore					✓		✓			
Hippophae rhamnoides	Sea-buckthorn					✓					
Hyacinthoides non-scripta	Bluebell		Sch 8					✓	✓		
Lepidium latifolium	Dittander					✓		✓			
Ophrys sphegodes	Early Spider-orchid		Sch 8			✓		✓			
Salvia verbenaca	Wild Clary					✓		✓		✓	
Saxifraga hypnoides	Mossy Saxifrage					✓					
Spiranthes spiralis	Autumn Lady's-tresses					✓		✓		✓	
Tilia platyphyllos	Large-leaved Lime					✓		✓			
Trifolium fragiferum subsp. fragiferum	Strawberry Clover					✓		✓			
Valerianella dentata	Narrow-fruited Cornsalad					✓		✓			
Invasive Non-native Species											
Branta canadensis	Canada Goose		Sch 9 Part 1								
Cotoneaster bullatus	Hollyberry Cotoneaster		Sch 9 Part 2 (England & Wales only)								
Cotoneaster horizontalis	Wall Cotoneaster		Sch 9 Part 2 (England & Wales only)								

[1] Conservation of Habitats and Species regulations 2017

[2] Wildlife and Countryside Act 1981, as amended

[3] Species of Principle Importance

[4] Species listed on the IUCN Red Data list or identified as Nationally rare or scarce

[5] Birds of Conservation Concern

[6] Surrey Axiophytes

[7] Ancient Woodland Indicator Species

[8] Grassland Indicator Species

Appendix 8: How to build a Stag Beetle loggery

people's trust for endangered species

Build a log pile for stag beetles

Stag beetles are one of the largest insects in the UK. They are in decline across Europe but there are many simple things you can do to help.

How you can help stag beetles

Stag beetles don't move far from where they emerge. Although males can fly up to 500m, most female stag beetles don't travel more than 20m and return to where they emerged to lay eggs. This means populations are vulnerable to becoming isolated and if there isn't enough dead wood nearby, dying out all together.

Private gardens are very important habitats for stag beetles. They rely on decaying wood that is in contact with the soil, both to feed on as larvae and in which to lay their eggs.

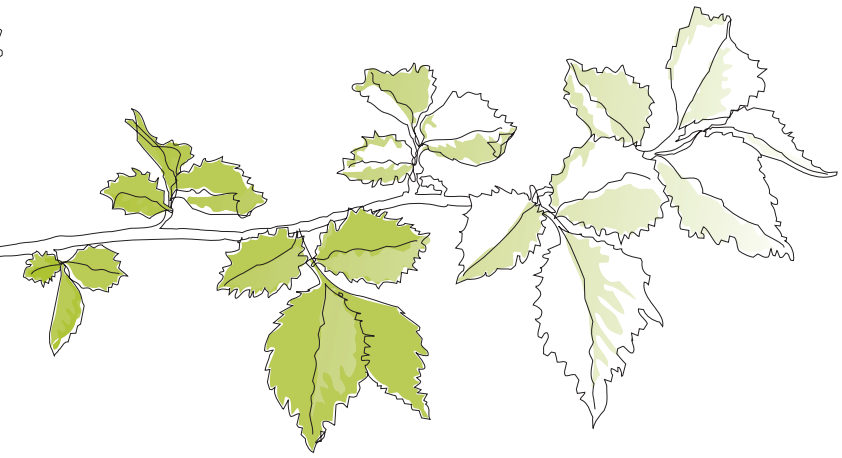
You can help by building a log pile in your garden to ensure that there is a good supply of suitable dead wood nearby for females to lay their eggs in.

Images: Peter Cox, Ben Andrew, PTES

Stag beetle larva

Stag beetle facts

- They are Britain's largest native terrestrial beetle
- The larvae develop underground in rotting wood for several years
- The adult only lives for a few weeks in the summer with the sole purpose of finding a mate
- Adult beetles don't eat but rely on the fat stores built up during their larval stage
- The male's antler-like jaws are used to fight off rival males



Please create a log pile for stag beetles and map it at **www.ptes.org/stagbeetle**. For more tips please see over.

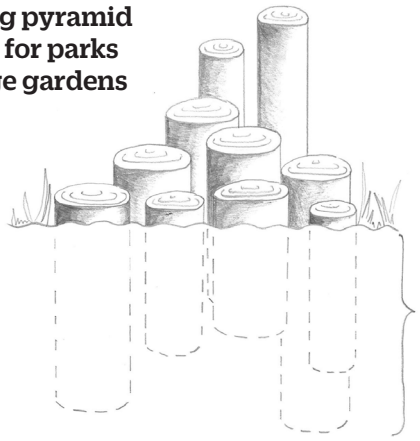
How to make a log pile

people's trust for endangered species

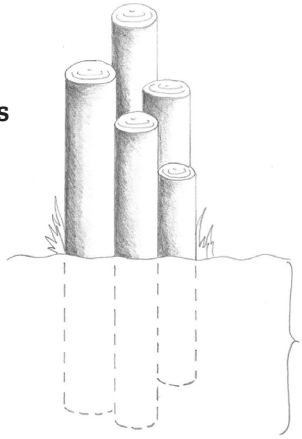
- Log pyramids can be built at any time of year
- Use wood from any broadleaved tree
- The logs should be at least the thickness of an adults arm
- Site the logs in partial shade if possible to prevent them drying out
- Partially bury the logs in the soil so that they don't dry out
- Allow plants to grow over the log pyramid to retain moisture and provide shade

Your log pile will also benefit a range of other species including fungi, dead wood invertebrates and the animals that feed on them. It will be a great place for foraging small mammals, basking reptiles and potentially solitary bees.

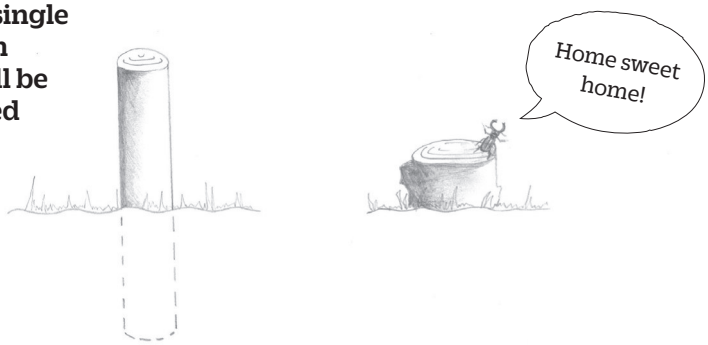
Large log pyramid suitable for parks and large gardens



Log pyramid suitable for small gardens



Or, if space is limited, a single log on or in the soil will be appreciated



More tips for stag beetle friendly gardening

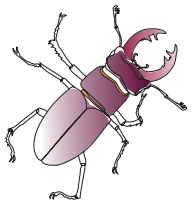
- Leave tree stumps in place if possible; they can become garden features with plants growing over them
- Try not to use pesticides
- Keep a lid on your water butt as stag beetles are known to fall in and drown
- Avoid using polythene sheeting to control weeds. Newly emerging stag beetles can get trapped beneath it in spring and die
- If you find larvae in the bottom of rotten fence posts and need to move them, dig a hole elsewhere in your garden and put them in together with some of the rotting wood from the original site. Cover loosely with soil

people's trust for endangered species

www.ptes.org
enquiries@ptes.org
020 7498 4533

facebook.com/ptes.org
twitter.com/PTES

registered charity no. 274206



Images: Ross Bower, Steve Heywood

Appendix 9: Bat box information pack

Bat Conservation Trust

www.bats.org.uk

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.


© Andrew Dumbleton

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.

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.


© John Altringham

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.

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:


Kent Bat Box

- 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 ecostyrocrete (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.

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 rehanging 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!

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 disturbany 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

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

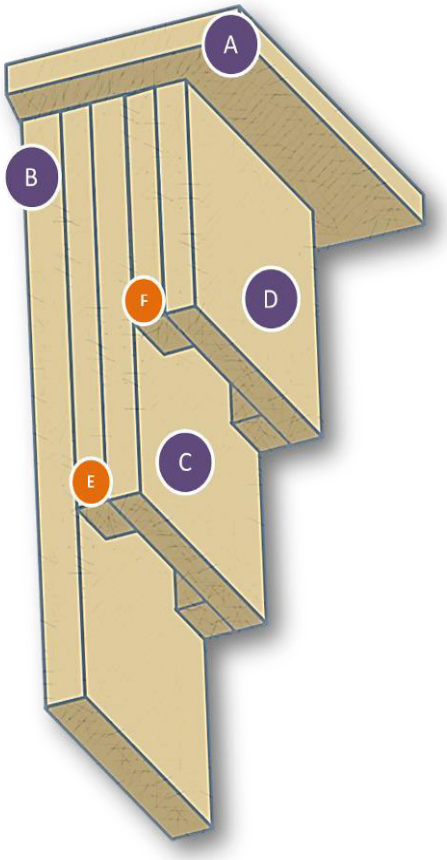
Mitchell-Jones, A.J (2004) Bat mitigation guidelines

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.

Appendix 10

Creating a hibernaculum for amphibians and reptiles

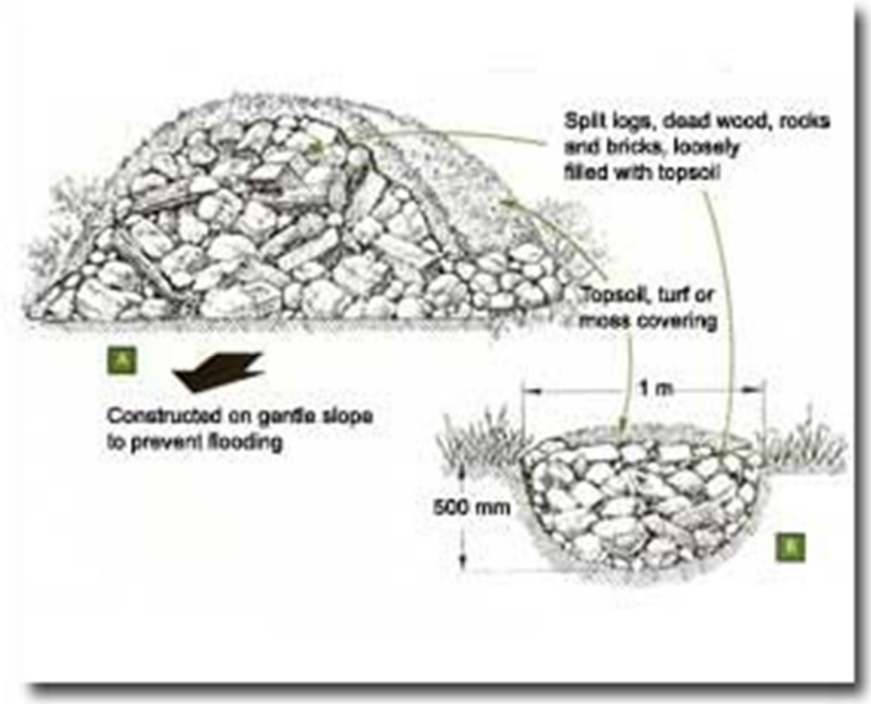
Hibernacula are underground chambers that amphibians and reptiles use through the winter to protect them from the cold.

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 hibernaculum 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 hibernaculum, either create a mound or dig a hole containing a mixture of topsoil, rubble, and rough cut logs. Dimensions of the hibernaculum 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 hibernaculum 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 hibernaculum will help prevent a thick root matt developing, which makes it hard for reptiles and insects to burrow into the surface.



Appendix 11: Banstead Downs HLS Agreement Mapping

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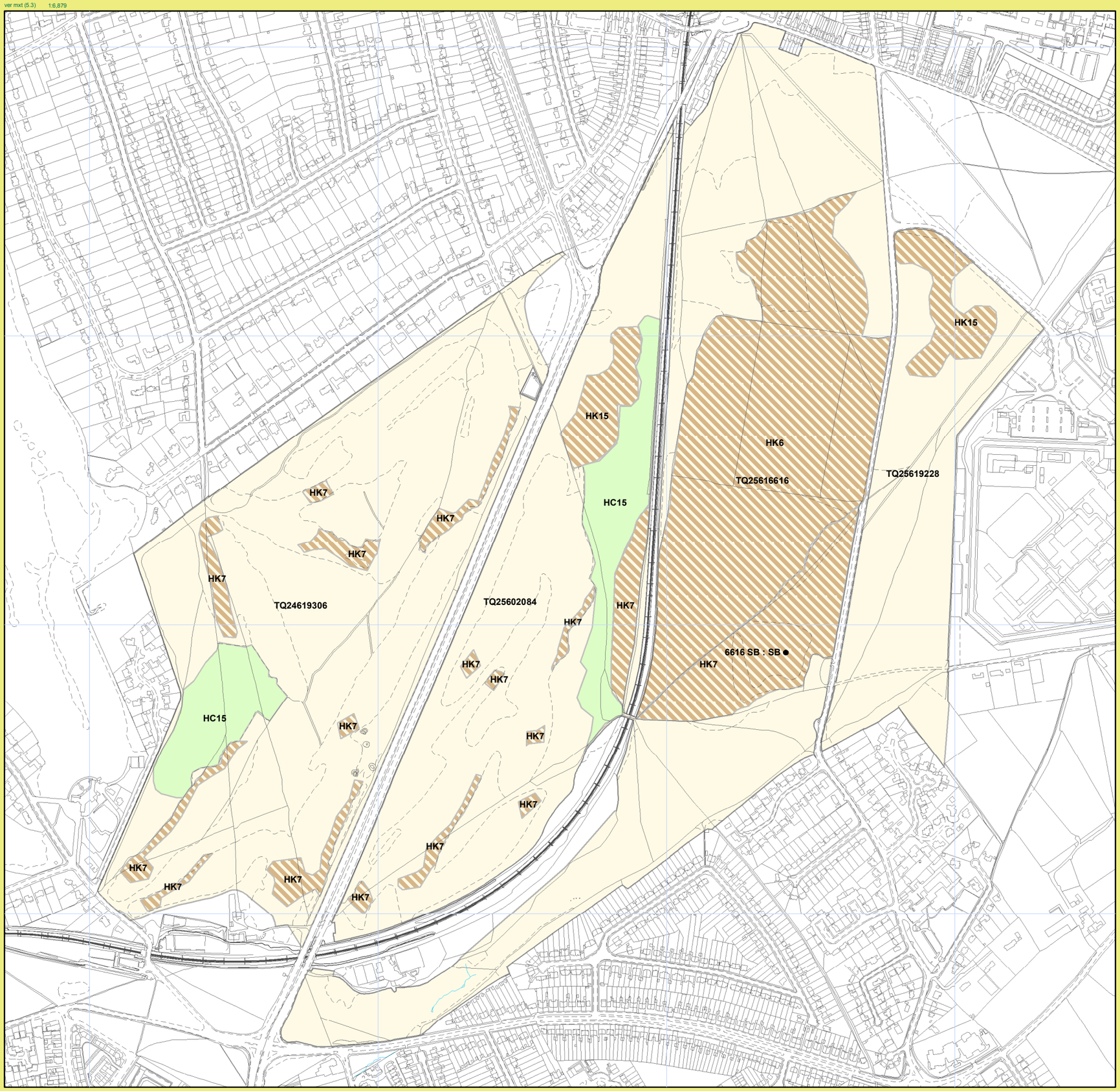

HIGHER LEVEL STEWARDSHIP OPTIONS MAP

Options	Assigned colour	Applicants colour match
HB	Maintenance of hedgerows/ditches of very high environmental value	
HC/OHC	Management of woodland edges/hedgerow buffer strips	
HC/OHC	6* 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	
PC GF 4	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.

0 280 560
Metres

Map provided for the sole purpose of supporting ES Scheme Applications and Agreements.

Application Ref: AG00363472

Options

ERDP/OPTIONS

NATURAL ENGLAND

Map produced 13/02/12

Appendix 12: Banstead Downs HLS Agreement Management Prescriptions

HK15
PART 3

HLS - Management of environmental features

General conditions on all HLS agreement land

On your HLS agreement land you must follow the general management conditions set out below, unless specifically stated otherwise in a subsequent section of this agreement. HLS agreement land is all land on which Higher Level Stewardship management prescriptions apply, including items within a Capital Works Plan

- Do not apply lime.

- On the conventional land that you manage: do not apply pesticides, except for the control of spear thistle, creeping thistle, curled dock, broad-leaved dock, common ragwort, nettles or other undesirable species named in your agreement.
  Herbicides may only be applied to these species by weedwiper or by spot treatment.

- Do not allow your agreement land to be levelled, infilled, used for the storage or dumping of materials or used by motor vehicles or machinery (except where necessary for the management of the land), if this is likely to cause long-term damage from rutting or compaction of the soil, or otherwise damage areas being managed under the scheme.

- Do not light fires (including burning brash or cuttings) where they could cause damage to features of archaeological or historic interest, or within ten metres of tree canopies or on any areas managed for their wildlife habitat interest. (This does not restrict your ability to manage heathland vegetation by controlled burning in compliance with the Heather and Grass Burning Regulations 1986 and accompanying Code.)

- Do not allow your agreement land to be used for organised games or sports, rallies, camping or caravanning, shows or sales where this is likely to damage areas being managed for their wildlife habitat interest or features of archaeological or historic interest; where this is likely to cause excessive or unreasonable disturbance to wildlife being encouraged under your agreement; or where this would cause unreasonable restriction to Public Rights of Way or "access land" as designated under the Countryside and Rights of Way Act 2000.

- Do not carry out or permit metal detecting or archaeological fieldwork on any of the archaeological sites on your holding identified in your Farm Environment Plan, unless agreed with your Natural England adviser in writing. In some cases a derogation will also be required.

HC15 - Maintenance of successional areas and scrub

Land parcels and associated features managed under this option:

RLR Field Number: TQ24619306
Features: G02 Semi-improved grassland, T08 Native semi-natural woodland

RLR Field Number: TQ25602084
Features: G02 Semi-improved grassland, T08 Native semi-natural woodland

General description of the management required:

The aim of this option is to maintain habitat mosaics at the field and landscape scale for specific BAP species and to protect soils and watercourses. It is also suitable adjacent to woodland to enhance or maintain the quality of the woodland edge environment and to maintain scrub on limestone pavement. This option is not appropriate on archaeological sites, or where scrub will be detrimental to the landscape. The option will require some form of regular management of vegetation, such as extensive grazing, on part or all of the site to maintain suitable conditions for species and to prevent the development of woodland. The option may require the exclusion of livestock in some or all years.

Indicators of Success

- By year 3, the following desirable species including those indicative of calcareous grassland such as — agrimony, lady's bedstraw, scabious species, cowslip, common knapweed should be at least occasional at the edges of the scrub.

- By year 3, cover of shrub species including Juniper, Box, Hawthorn, Blackthorn, Wayfaring tree and Holly, should be between 40% and 70% of the area. The vegetation within 2m of the edge of the scrub should be taller than 10cm.

- By year 5, shrub species should have a diverse age and height structure. No more than 40% of the scrub area should be mature, or over mature.

- By year 3, tree species Ash, Field maple, Yew and Oak should be present at irregular spacing, with an overall canopy of between 10 - 30% of the area.

- All SSSI land should be in favourable or recovering condition.

- By year 2, the following undesirable species Ragwort, Creeping Thistle, Nettle should be no more than occasional.

- Archaeological features in the field to have suffered no further degradation. Detrimental indicators (e.g. burrows, bare patches, scrub growth, poaching and erosion) cover less than 5% of the area.

Management Prescriptions; the dos and don’ts of management

The following rules apply across the whole area being managed under this option.

- Rotationally cut areas of scrub each year in the autumn or winter months, especially to create wavy edges and allow this to re-grow, resulting brash must be removed, chipped or burnt on areas without grassland species.

- Control all non-native conifers, Poplar, Sycamore, Cotoneaster, and Japanese
- Knotweed.

- There must be no ploughing or other cultivation such as reseeding, rolling or chain harrowing.

- Unless otherwise agreed with your Natural England adviser, all mature or over- mature standing trees and all standing and fallen deadwood must be retained, unless it is a genuine safety hazard. Tree surgery must be limited to that required for the safety of people and livestock.

- There must be no new drainage or modification/improvement to existing drainage systems. Existing drains can be maintained.

- Retain ivy on trees wherever possible, only trimming when it enters the canopy and may act as a sail in the wind and threaten the longevity of the tree.

HK6 - Maintenance of species-rich, semi-natural grassland

Land parcels and associated features managed under this option:

RLR Field Number: TQ25616616

Features: G04 Lowland calcareous grassland - BAP habitat, S101 Uncommon Invertebrates

General description of the management required:

This option is targeted at the maintenance and protection of areas of species-rich grassland. The importance of species-rich grassland is recognised by the UK Biodiversity Action Plan (BAP). The option can also contribute to protecting valued landscapes and archaeology, and the promotion of good soil conditions.

Indicators of Success

- All SSSI land should be in favourable or recovering condition.

- The extent of the habitats of interest within the grassland as identified in the Farm Environment Plan and Management Plan should be maintained or increased.

- The Soil Phosphate Index should be 0 or 1 where practicable.

- At least 2 high-value indicator species such as, lady's bedstraw, autumn gentian, horseshoe vetch, bastard toadflax, cowslip, orchid species, clustered bellflower,fairy flax, hairy violet, kidney vetch, milkworts, salad burnet, dropwort, squinancywort, wild thyme, bee orchid, round-headed rampion for BAP grassland habitat Lowland calcareous grassland should be frequent and 2 occasional in the sward.

- By year 3, cover of wildflowers in the sward (excluding undesirable species but including sedges), should be between 30% and 70%. At least 25% of wild flowers should be flowering during May-July.

- By year 2, cover of bare ground should be between 1% and 5%, distributed throughout the field in hoof prints or other small patches.

- Locally significant species populations should be retained — early gentian, round-headed rampion and bee orchid as examples.

Management Prescriptions; the dos and don'ts of management

The following rules apply across the whole area being managed under this option.

From year 1, manage the sward by grazing and/or cutting to achieve a sward height of between 2cm and 10cm in October/November.

- Do not install new drainage or modify existing drainage systems unless agreed in writing with your Natural England adviser.

- Supplementary feeding is not permitted.

- Control undesirable species such as Creeping Thistle, Spear Thistle, Curled Dock, Broad-leaved Dock, Common Ragwort, Common Nettie, Ragwort so that by year 2, their cover is less than 2% of the area. Agree all methods of control with your Natural England adviser.

- Ploughing, sub-surface cultivation and reseeding are not permitted.

- Field operations and stocking must not damage the soil structure or cause heavy poaching. Small areas of bare ground on up to 5% of the field are acceptable.

- There must be no application of nutrients such as fertilisers, organic manures or waste materials including sewage sludge.

HK7 - Restoration of species-rich, semi-natural grassland

Land parcels and associated features managed under this option:

RLR Field Number: TQ246 19306

Features: G02 Semi-improved grassland

RLR Field Number: TQ25602084

Features: G02 Semi-improved grassland

RLR Field Number: TQ25616616

Features: G04 Lowland calcareous grassland - BAP habitat, SI01 Uncommon Invertebrates

RLR Field Number: TQ26587357

Features: G04 Lowland calcareous grassland - BAP habitat, SI01 Uncommon Invertebrates

RLR Field Number: TQ27580848

Features: G02 Semi-improved grassland

General description of the management required:

This option is targeted at grasslands that are potentially rich in plant and associated animal life. They are often on difficult ground and may have suffered from management neglect or they may have been selected for agricultural improvement. The botanical diversity of such grassland may be enhanced by simply amending existing management practices. However, on many sites pro-active restoration management will be required involving introduction of seeds and creation of gaps for their establishment. Substantial changes of livestock type, timing of grazing or control of dominant species may also be required. The option can also contribute to protecting valued landscapes and archaeology, and the promotion of good soil conditions.

Indicators of Success

- The extent of the habitats of interest within the grassland and successional areas of scrub as identified in the Farm Environment Pian and on the SSSI citation should be maintained or increased.

- The Soil Phosphate Index should be 0 or 1 where practicable.

- By year 2, at least 2 high-value indicator species such autumn gentian, bird's-foot trefoil, harebell, hoary plantain, agrimony, lady's bedstraw, mouse-ear hawkweed, marjoram, small scabious, squinancywort, bastard toadflax, clustered bellflower, wild thyme, kidney vetch, horseshoe vetch, meadow oat-grass, quaking grass, upright brome, yellow oat-grass as for BAP grassland habitat lowland calcareous grassland should be frequent and 2 occasional in the sward.

- By year 6, at least 4 high value indicator species for the BAP habitat feature lowland calcareous grassland should be frequent in the sward.

- In all years, populations of nationally rare, nationally scarce, locally significant species should be maintained — for example early gentian, round-heeded rampion, bee orchids.

- All SSI land should be in favourable or recovering condition.

- By year 4 cover of wildflowers in the sward (excluding undesirable species but including rushes and sedges), should be between 20% and 60%. At least 30% of wild flowers should be flowering during May-July.

- By year 2, cover of bare ground should be between 1% and 5%, distributed throughout the field in hoof prints or other small patches.

Management Prescriptions; the dos and don'ts of management

The following rules apply across the whole area being managed under this option.

- From year 1, manage the sward by grazing and/or cutting to achieve a sward height of between 2cm and 10cm in November — any cuttings should be removed from site.

- There must be no application of nutrients such as fertilisers, organic manures or waste materials including sewage sludge.

- Supplementary feeding is not permitted.

- Control undesirable species such as Creeping Thistle, Spear Thistle, Common Ragwort, Common Nettle so that their cover is less than 2% of the area. Agree all methods of control with your Natural England adviser.

- Do not install new drainage or modify existing drainage systems unless agreed with your Natural England adviser.

- Ploughing, sub-surface cultivation and reseeding are not permitted.

- Field operations and stocking must not damage the soil structure or cause heavy poaching. Particular care when the land is waterlogged.

- In year 1 to 5, follow a programme (agreed in writing with your NE adviser) of rotational scrub management. Never manage more than 1/4 of the site in any one year and never completely eradicate scrub from the site.

HK15 - Maintenance of grassland for target features

Land parcels and associated features managed under this option:

RLR Field Number: TQ23546711

Features: G02 Semi-improved grassland, G05 Lowland dry acid grassland – BAP habitat, M03 Lowland heath - BAP habitat, SB01 Barn owl, SBO2 Bullfinch, SBO6G Kestrel, SB08 Linnet, SB11 Skylark, SB13 Song Thrush, SB18 Yellowhammer, SB19 Uncommon Birds

RLR Field Number: TQ23551523

Features: H02 Below ground historic feature

RLR Field Number: TQ25602084

Features: G02 Semi-improved grassland

RLR Field Number: TQ25619228

Features: G02 Semi-improved grassland, G04 Lowland calcareous grassland – BAP habitat, S101 Uncommon Invertebrates

General description of the management required:

This option will maintain semi-improved or rough grassland which is known to provide good conditions for target species and to protect other features, such as historic sites. This option can also be used to maintain moderately species-rich semi-improved grassland, where it lacks the potentiat to be restored to species-rich, semi-natural grassland (option HK7), but which is identified as a priority in local targeting statements. This option may be applied to grassland Priority Habitat types, but which occur in land parcels that are extensively managed due to topography and location, for example species-rich upland calcareous grassland in large allotments. it may also be used to manage grassland which has limited biodiversity value, but which hasbeen created under a classic scheme for other objectives, such as protection of the historic environment.

Indicators of Success

- From 1 September to 28 February at least 10% of the field should have grasses that are allowed to go to seed and with the seed heads left undisturbed. |
- At least 2 of the positive indicator species from the lists below should be occasional
- Fields 9228 & 2084 — lady's bedstraw, autumn gentian, cowslip, common bird’s-foot trefoil, carline thistle, common rock-rose, fairy flax, hairy violet, harebell,milkworts, salad burnet or wild thyme, quaking grass, glaucous sedge, small cat's-ear.
- Fields 6711 & 1523 — common knapweed, common bird’s-foot trefoil, autumn hawkbit, tormentil, ox-eye daisy, goat’s-beard, meadow vetchling, harebell, bell heather, common stork’s-bill, heath bedstraw, sheeps sorrel, wood sage or wavyhair grass, sheep’s fescue, sweet vernal grass.
- By year 2 cover of indicators of water logging Tufted Hair-grass, rushes, large sedges, large grasses should be less than 30%. |
- (Archaeological features in fields 1523 and 6711 to have suffered no further degradation. The depth of soil covering the features has been maintained.
- Detrimental indicators (e.g. burrows, bare patches, scrub growth, poaching and erosion) cover less than 5% of the area. |
- In all years, populations of nationally rare / nationally scarce / locally significant species — such as early gentian should be maintained.
- By year 3, at least 2 high-value indicator species should be frequent and 2 occasional in the sward.

Management Prescriptions; the dos and don’ts of management

The following rules apply across the whole area being managed under this option.

- Manage the sward by grazing and/or cutting to achieve a sward height of between 5cm and 15cm during April and May (unless the land has been shut for hay) and between 5cm and 15cm in November.

- Field operations and stocking must not damage the soil structure or cause heavy poaching. Small areas of bare ground on up to 5% of the field are acceptable. Take particular care when the land is waterlogged.

- Do not cut hay before 30 June, always leaving at least 10% uncut in any one year (which need not be the same 10% each year). All cuttings must be removed.

- Do not apply fertilisers, organic manures or waste materials (including sewage sludge).

- Do not top, roll or harrow between 1 October and 30 June. Do not treat more than 30% of the total grassland area in any one year, and always leave a minimum of 5% tussocks / longer grass.

- Ploughing, sub-surface cultivation and reseeding are not permitted!

- Do not install new drainage or modify existing drainage systems unless agreed with your Natural England adviser. Routine maintenance of functioning drainage systems is allowed.

- Control undesirable species such as Creeping Thistle, Spear Thistle, Curled Dock, Broad-leaved Dock, Common Ragwort, Common Nettle so that by year 3, their cover is less than 5% of the area. Agree all methods of control with your Natural England adviser.

- To benefit Great Crested Newts the land within a 200m radius of a breeding pond must be managed extensively and no new barriers such as buildings, walls, tracks, or footpaths created. Potential hibernation sites such as rabbit burrows, log piles, rocky areas or woodland should be retained. Consult your Natural England adviser and get agreement in writing before starting any management operations!

- In year 1 to 3, follow a programme (agreed in writing with your NE adviser) of rotational Bracken management through cutting or bruising of dense Bracken stands.

Appendix 13: European protected species checklist

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

European Protected Species and woodland operations. (V4)
Complete all sections of the Checklist

Checklist		Details
1 **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 - ☐ Dormice ☐ Otters ☐ Great crested newts ☐ Sand lizards ☐ Smooth snakes	YES / NO	**Name of Wood:**
2 **Does your wood contain any of the following habitats? Tick any that apply.** ☐ Old trees with holes and crevices which might be used bats ☐ Species rich scrub/coppice, early growth stage plantations and forest interfaces ☐ Rivers on which otters might be found ☐ Ponds which might be occupied by great crested newts ☐ Open areas on heathy soils	YES / NO	**Grid Reference:**
3 **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: ☐ National Biodiversity Network (www.nbn.org.uk) ☐ Local Biological Records Centre ☐ Local Wildlife Trust ☐ Other *Specify Other:*	YES / NO	**Area: (ha)**
4 **Have your inspections or any expert surveys found any of the following signs or evidence? Tick any that apply.** ☐ Signs (e.g. otter spraint, nuts gnawed by dormice, leaves folded by newts) ☐ Sightings (or echo-location) ☐ Potential breeding or roosting sites (e.g. veteran trees, old trees with crevices, riverside hollow trees, ponds, timber stacks, large fallen deadwood) ☐ Confirmed breeding or roosting sites (i.e. evidence of sites actually being used) *Details:*	YES / NO	**Date of Assessment:**
		Name of Assessor:

CHECK POINT	
If you have answered NO to ALL of the above then only bats need to be considered in your operations. **If you have answered YES to any of the above then the species concerned must be considered as well as bats.**	

		Notes
5 **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:*	YES	A licence is not required but continue to sections 6 and 7 below
	NO	You will need to obtain a licence BEFORE carrying out the work (see EPS Licence Application Forms and Notes)
6 **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.** ☐ Included in documentation (e.g. contract, letter of instruction, site assessment or other management plan) ☐ Shown to operators and/or their supervisor ☐ Marked with paint or hazard tape ☐ Shown on the site plan *Other means:*	YES	
	NO	You may commit an offence if you do not tell your operators about the protected species in your wood.
7 **Have arrangements for supervision been made to ensure Good Practice guidance is complied with during the operations?** *Details:*	YES	
	NO	You may commit an offence if you do not take steps to ensure that your operators comply with the Good Practice guidance.

Appendix 144: 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.

Plan visits so that the highest risk site is visited last Invalid source specified..