

Ecological Impact Assessment

***Broad Chalke Surgery, Doves Meadow, Broad Chalke, Salisbury,
Wiltshire SP5 5EL***

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Supporting Documents

Document Title	Document Category	Document Type	Document Number & Revision	Date Received by Eclipse Ecology
Existing Site Plan	Site Plan	PDF	10081-SK02	13 August 2025
Proposed Ground Floor – Option 1	Site Plan	PDF	10081-SK04 Rev C	13 August 2025

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Appendix 1 Wildlife Legislation & Policy

Appendix 2 Habitat Map

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Abbreviations

BCT	Bat Conservation Trust
BNG	Biodiversity Net Gain
BoCC	Bird(s) of Conservation Concern
BTO	British Trust for Ornithology
CHSR	The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019
CIEEM	Chartered Institute of Ecology & Environmental Management
CWS	County Wildlife Site
CRoW Act	Countryside and Rights of Way Act 2000
DCLG	Department for Communities & Local Government
EclA	Ecological Impact Assessment
ECOW	Ecological Clerk of Works
e-DNA	Environmental DNA
EPS	European Protected Species – protected by the CHSR
GCN	Great Crested Newt
HAP	Habitat Action Plan
Hedgerow Regulations	Hedgerow Regulations 1997
HPI	Habitat(s) of Principal Importance
HSI	Habitat Suitability Index
ILP	Institute of Lighting Professionals
JNCC	Joint Nature Conservation Committee
LBAP	Local Biodiversity Action Plan
LNR	Local Nature Reserve
LPA	Local Planning Authority
LWS	Local Wildlife Site
MAGIC	Multi-Agency Geographical Information for the Countryside
MCIEEM	Member of Chartered Institute of Ecology & Environmental Management
National Sites Network	The network of SACs and SPAs in the UK designated for nature conservation
NPPF	National Planning Policy Framework 2021
NERC Act	Natural Environment and Rural Communities Act 2006
NNR	National Nature Reserve
OS	Ordnance Survey
PCR	Polymerase Chain Reaction
PEA	Preliminary Ecological Appraisal
PRF	Potential Roost Feature
PS	Protected Species
PSML	Protected Species Mitigation Licence
RSPB	Royal Society for the Protection of Birds
SAC	Special Area of Conservation
SANG	Suitable Alternative Natural Greenspace
SAP	Species Action Plan
SINC	Site of Importance for Nature Conservation
SNCI	Site of Nature Conservation Interest
SNCO	Statutory Nature Conservation Organisation
SPA	Special Protection Area
SPI	Species of Principal Importance
SQE	Suitably Qualified Ecologist
SUDS	Sustainable Urban Drainage Systems
SSSI	Site of Special Scientific Interest
WCA	Wildlife & Countryside Act 1981 (as amended)
WCC	White-Clawed Crayfish
WSBRC	Wiltshire & Swindon Biological Records Centre

1 Summary

Site	Broad Chalke Surgery, Doves Meadow, Broad Chalke, Salisbury, Wiltshire SP5 5EL
OS Grid Reference	SU 03842 25529
Development Proposal	The applicant proposes to extend the surgery over the existing car park, as well as at two locations to the rear of the building.
Survey Date	16 September 2025
Results	Designated sites: the River Avon SAC is located within the zone of influence of the application site. Habitats: the site comprises buildings, sealed surfaces, modified grassland, introduced shrubs and individual trees. Protected/notable species: Himalayan cotoneaster, a Schedule 9 invasive species, is located on the site. The site also holds potential for nesting birds and hedgehogs.
Further Surveys & Assessments	No further surveys or assessments are required.
Precautionary Measures, Avoidance & General Mitigation	Himalayan cotoneaster: carefully remove and dispose of the cotoneaster at a licensed waste facility. Hedgehogs: leave excavations covered overnight to prevent wildlife access, or secure planks to allow any animals that fall in to escape during construction. General: stop works and seek advice from an SQE if any protected/notable species or their signs are found during site clearance/construction.
Enhancements	General Planting: use wildlife-friendly species within any new planting. Shrubs: replace the Himalayan cotoneaster with a suitable native shrub mix. Replace other non-native shrub planting with suitable species. Lawns: seed the proposed lawns with Emorsgate EL1 – Flowering Lawn Mixture. Invertebrates: install two insect houses in sheltered, warm locations. Bats: install two bat access tiles onto the surgery's south-facing roof. Birds: if appropriate, integrate two Sparrow Terraces into the walls of the proposed extension.

2 Introduction

2.1 Background

Eclipse Ecology Ltd were commissioned to undertake an EclIA for a development proposed at Broad Chalke Surgery, Doves Meadow, Broad Chalke, Salisbury SP5 5EL – herein referred to as ‘the site’. This report details the results of the desk study and field survey, which have been assessed in light of the development proposals for the site. Mitigation and enhancements have been advised, where required.

2.2 Site Location & Description

The site is located in the village of Broad Chalke at central OS Grid Reference SU 03842 25529. The site is c. 0.09ha and comprises buildings, sealed surfaces, modified grassland, introduced shrub and trees. The site is situated in a rural location and surrounded by modified grassland to the north, south and west, and residential to the east. The wider area comprises fields bounded by mature hedges, watercourses and pockets of deciduous woodland. The nearest woodland is c. 45m south and the nearest watercourse is c. 90m south.

2.3 Development Proposal

The applicant proposes to extend the surgery over the existing car park, as well as at two locations to the rear of the building.

2.4 Survey Scope

The study area includes the site plus these distances around the site based on the project’s zone of influence¹ on ecological features:

- Variable distances for statutory nature conservation sites of at least national importance.
- 0.5km for statutory nature conservation sites of local importance.
- 100m for non-statutory nature conservation sites.
- 1km for protected and notable species.
- 0.5km for notable habitats and waterbodies.
- 30m for badger setts.

2.5 Objectives

The objectives of the assessment were to:

- Identify any designated sites within the proposed development’s zone of influence.
- Identify notable habitats and the potential for protected/notable species on-site.
- Assess the implications of the survey results on the development proposal and identify any ecological constraints.
- Advise avoidance, mitigation and enhancement measures, where required, in accordance with wildlife legislation and planning policy (**Appendix 1**).

¹ The ‘zone of influence’ for a project is the area over which ecological features may be affected by biophysical changes as a result of the proposed project and associated activities. Distances are based on professional judgement informed by the size and type of development, as well as established buffer zones provided by local plans.

3 Methodology

3.1 Surveyor

The survey was undertaken by Principal Ecologist Cassie Todd BSc (Hons), MCIEEM of Eclipse Ecology Ltd (a CIEEM Registered Practice). Cassie is licensed to survey for great crested newt *Triturus cristatus*, bats, hazel dormice *Muscardinus avellanarius*, smooth snake *Coronella austriaca*, sand lizard *Lacerta agilis*, barn owl *Tyto alba* and white-clawed crayfish *Austropotamobius pallipes*². Cassie has 15 years of ecological experience and is a Full Member of the CIEEM and subject to the CIEEM Professional Code of Conduct. Cassie is also a 'Named Ecologist' on several badger *Meles meles* and bat Mitigation Licences – including; common pipistrelle *Pipistrellus pipistrellus*, soprano pipistrelle *Pipistrellus pygmaeus*, brown long-eared *Plecotus auritus*, serotine *Eptesicus serotinus* and whiskered bats *Myotis mystacinus*.

3.2 Desk Study

Publicly available sources of biodiversity information were used to inform the assessment, as follows:

- Natural England's MAGIC³ website to check if the site occurs within a 'SSSI Impact Risk Zone' – this tool flags the types of planning applications that could lead to adverse impacts on SSSIs⁴, SPAs⁵, SACs⁶ and Ramsars⁷.
- MAGIC to check for other statutory nature conservation designations e.g. NNRs⁸ and LNRs⁹.
- MAGIC to search for any PS Mitigation Licences granted by Natural England.
- NBN Atlas^{10 11} and the Big Hedgehog Map¹² for protected/notable species records in the local area.
- Aerial images and OS maps¹³ to identify any HPI¹⁴ in the wider area.

WSBRC records were also checked for information on:

- Non-statutory nature conservation designations such as LWSs and LNRs¹⁵.

3.3 Habitat Survey

The site was surveyed on 16 September 2025. The weather during the survey was 17°C, Beaufort 1, 70% cloud cover and occasional light rain. Habitat types and ecological features were recorded and mapped with

² Licence no's 2015-15441-CLS-CLS, 2016-20629-CLS-CLS, 2015-18630- CLSCLS, 2021-51716-SCI-SCI, 2016-19729-CLS-CLS & 2016-25162-SCI-SCI.

³ <http://magic.gov.uk/MagicMap.aspx>

⁴ SSSIs are representative samples of British habitats forming a national series aimed at maintaining the present diversity of wild plants and animals in Great Britain. SSSIs are protected by the WCA and CRoW Act.

⁵ SPAs are sites that support rare, vulnerable or large numbers of regularly occurring migratory bird species. SPAs are part of the National Sites Network. SPAs are protected by the CHSR, WCA and the CRoW Act.

⁶ SACs are high quality conservation sites which significantly contribute to conserving habitats and species threatened in Europe as a whole. SACs are part of the National Sites Network. SACs are protected by the CHSR, WCA and CRoW Act.

⁷ Ramsar sites are wetlands of international importance that support wildfowl and other important species. Ramsar sites are protected by the Ramsar Convention, CHSR (by policy), WCA and CRoW Act

⁸ NNRs are protected by the National Parks & Access to the Countryside Act 1949; the WCA and the CRoW. NNRs are areas managed for study or research into flora, fauna, geological or physiographical interest, or for preserving features of special interest. NNRs are owned for leased by Natural England, bodies approved by them, or managed under agreement with landowners/occupiers.

⁹ LNRs are protected by the National Parks & Access to the Countryside Act 1949; Local planning documents and policies. LNRs are concentrated in/around urban areas where a policy of using LNRs to promote conservation education has been pioneered.

¹⁰ NBN Atlas website at <http://www.nbnatlas.org>. The Data Provider, Original Recorder [where identified], and the NBN Trust bear no responsibility for any further analysis or interpretation of that material, data and/or information.

¹¹ Data with CC0 or CC-BY Licences maybe used in this report as per NBN Atlas' policy <https://docs.nbnatlas.org/guidance-for-using-data/>

¹² <https://bighedgehogmap.org/>

¹³ <https://wtp2.appspot.com/wheresthepath.htm>

¹⁴ HPI are listed under the NERC Act.

¹⁵ Non-statutory sites are protected by local planning documents and other local designations. These sites are some of our most valuable wildlife areas and are identified and selected locally using scientifically-determined criteria and surveys.

reference to the *Guidelines for Preliminary Ecological Appraisal* (CIEEM, 2017) and the UK Habitat Classification Version 2.0 (UK Hab Ltd, 2023).

3.4 Protected & Notable Species Assessment

The site was inspected for evidence of and assessed for potential to support the protected and notable species below¹⁶.

3.4.1 Plants

A list of plants representative of each habitat on-site was made. Invasive plants listed under Schedule 9 of the WCA, such as giant hogweed *Heracleum mantegazzianum*, Japanese knotweed *Fallopia japonica*, rhododendron *Rhododendron ponticum* and variegated yellow archangel *Lamium galeobdolon* subsp. *argentatum* were also searched for.

3.4.2 Invertebrates

The site was assessed for its potential value to support diverse invertebrate communities. This was based on the presence of habitat features such as an abundance of dead-wood, diverse plant communities, a varied habitat structure, ponds, watercourses and free draining soil exposures.

3.4.3 Amphibians

The site was assessed for suitability to support amphibians such as the legally protected GCN and the notable common toad *Bufo bufo*. The assessment was made in accordance with the *Herpetofauna Workers' Manual* (Gent & Gibson, 2003) and the *Great Crested Newt Conservation Handbook* (Langton, et al., 2001). As part

3.4.4 Reptiles

The site was assessed for reptile suitability in accordance with the *Herpetofauna Workers' Manual* (Gent & Gibson, 2003) and *Froglife Advice Sheet 10 An Introduction to Planning, Conducting and Interpreting Surveys for Snake and Lizard Conservation* (Froglife, 1999).

3.4.5 Birds

The site was assessed for nesting birds. This was based on evidence of nesting such as old or active nests, habitat suitability and any bird species recorded on-site during the survey.

3.4.6 Badgers

The site and a 30m zone around the site (where accessible) were surveyed for signs of badger such as setts, latrines, pathways, footprints, snuffle holes and badger hair. Any setts recorded were given a tentative classification in accordance with published criteria i.e. main/annex/subsidiary/outlier (Harris, et al., 1989).

3.4.7 Bats

The site was assessed for suitability to support roosting, foraging and commuting bats in accordance with the BCT *Bat Surveys for Professional Ecologists Good Practice Guidelines* (Collins, 2023), as detailed below.

3.4.7.1 Preliminary Bat Roost Assessment

The buildings on-site were assessed for bat roosting suitability in accordance with **Table 3.1**. Binoculars (Pentax Papilo II 6.5 x 21), a ladder, a high-power torch and an endoscope (Ridgid CA-350X) were used where

¹⁶ This includes species listed under the CHSR, the WCA and those given extra protection under the NERC Act, CROW Act and the Protection of Badgers Act 1992.

appropriate to investigate the buildings for bats and their evidence such as droppings, staining, scratch marks, feeding remains and audible squeaking.

Trees were also surveyed from the ground for signs of bats¹⁷ and PRFs in accordance with **Table 3.1**. PRFs typically include features such as woodpecker holes, rot holes, hazard beams, cracks, splits, knot holes, cavities, loose bark and partially detached ivy (Andrews, 2013).

Table 3.1 Categorisation of the bat roosting suitability of buildings & trees (adapted from Collins, 2023)

Roost Suitability	Description of Roosting Habitats
Negligible	Negligible habitat features on-site likely to be used by roosting bats.
Low	One or more potential roost sites that could be used by individual bats opportunistically. However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions and/or suitable surrounding habitat to be used on a regular basis or by larger numbers of bats (i.e. unlikely to be suitable for maternity or hibernation). A tree of sufficient size and age to contain PRFs but with none seen from the ground or features seen with only very limited roosting potential.
Moderate	One or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions and surrounding habitat but unlikely to support a roost of high conservation status.
High	One or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions and surrounding habitat.
Confirmed roost	Direct evidence of bat occupation found e.g. fresh bat droppings, live bats and dead specimens. Note that a confirmed roost can still be categorised as low, moderate or high roosting suitability depending on the amount/type of bat evidence found and features of the building/tree.

3.4.7.2 Foraging & Commuting

The site was assessed for foraging and commuting bat suitability in accordance with **Table 3.2**.

Table 3.2 Classifying the suitability of bat foraging & commuting habitat (Collins, 2023)

Commuting & Foraging Habitat Suitability	Description
Negligible	Negligible habitat features on-site likely to be used by commuting or foraging bats.
Low	Habitat that could be used by small numbers of commuting bats such as a gappy hedgerow or un-vegetated stream, but isolated or poorly connected to habitat in the surrounding landscape. Suitable, but isolated habitat that could be used by small numbers of foraging bats such as a lone tree (not in parkland) or a patch of scrub.
Moderate	Continuous habitat connected to the wider landscape that bats may use for commuting such as tree-lines and scrub or linked back gardens. Habitat that connects to the wider landscape that bats may use for foraging such as trees, scrub grassland and water.
High	Continuous, high quality habitat that is well connected to the wider landscape that is likely to be used regularly by commuting bats such as river valleys, streams, hedgerows, tree-lines and woodland edge. High quality habitat that is well-connected to the wider landscape that is likely to be used regularly by commuting bats such as broadleaved woodland, tree-lined watercourses and grazed parkland. Site is close to and connected to known roosts.

3.4.8 Hazel Dormouse

The site was assessed for hazel dormouse suitability in accordance with the *Dormouse Conservation Handbook* (Bullion, 2025). Dormice typically use connected woodland, hedges and scrub that contain suitable food plants such as bramble *Rubus fruticosus* agg. and hazel *Corylus avellana*, and nesting material such as honeysuckle *Lonicera periclymenum*. Aerial images were used to assess the connectivity of any

¹⁷ Such as droppings, staining, scratch marks, feeding remains and audible squeaking.

suitable habitat on the site to woodland and hedges in the wider area. Dormouse nests were also searched for within the boundary vegetation, which according to Natural England, is sufficient survey effort where a small amount of habitat may be removed from the site¹⁸.

3.4.9 Other Notable Mammals

The site was assessed for suitability to support other protected/notable mammals such as hedgehog *Erinaceus europaeus*.

3.5 Evaluation

Ecological features¹⁹ (potentially) associated with the site have been evaluated in accordance with the *Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine* (CIEEM, 2018). The evaluation takes into account a feature's legal status, rarity, function and characteristics, where appropriate.

The importance of each ecological feature has also been considered in a geographical context, as follows: **international**, **national** (i.e. the UK), **regional** (i.e. the Southwest), **local** (i.e. Broad Chalke/Salisbury), **site** and **negligible**. Where appropriate, the potential/suitability for a protected/notable species occurring on-site has been assigned 'negligible', 'low', 'moderate' or 'high'. This is based on habitat suitability and any evidence observed.

3.6 Impact Assessment

Impacts on ecological features have been assessed by considering the potential effects of the development proposal, as follows: positive or negative, extent, magnitude, duration, timing, frequency and reversibility (CIEEM, 2018). Only those ecological features with at least **local** importance / those of **legal** consideration / where **significant** impacts may occur have been assessed. Only mitigation and enhancements which are shown on the development plans can be taken into account. The impact assessment has been prepared in proportion to the scale and type of project²⁰ i.e. a small-scale development that proposes to extend a surgery.

3.7 Limitations & Assumptions

Access was available to the entire site and the baseline conditions reported represent those identified at the time of the survey. The survey was also completed at an optimal time of year for recording vegetation. Although a reasonable assessment of the site can be made during a single survey, seasonal variations are not observed. This assessment will remain valid for two years i.e. until September 2027; after which, the assessment should be updated if works have not commenced within this timeframe²¹.

¹⁸ <https://www.gov.uk/guidance/hazel-or-common-dormice-surveys-and-mitigation-for-development-projects>

¹⁹ These include designated sites, habitats and protected/notable species.

²⁰ As per CIEEM's webinar 'An Update on the Guidelines for Preliminary Ecological Appraisal' (19 January 2018).

²¹ In accordance with *Advice Note on the Lifespan of Ecological Reports and Surveys* (CIEEM, 2019).

4 Results & Evaluation

This section presents the results and evaluation of ecological features (potentially) associated with the site.

4.1 Designated Sites

Statutory nature conservation sites identified within the application site's are given in **Table 4.1** – the site is located in the Nutrient Impact Area for the River Avon SAC. No other statutory nature conservation sites are located within 1km of the application site. Further, non-statutory nature conservation sites are absent from within 100m of the application site.

Table 0.3 Statutory nature conservation sites of international importance within the application site's zone of influence

Site Name	Distance & Direction from Application Site	Area (ha)	Description	Evaluation
River Avon SAC	5.4km north	467.58	Annex I habitats that are a primary reason for selection: watercourses of plain to montane levels with the <i>Ranunculus fluitantis</i> and <i>Callitriche-Batrachion</i> vegetation. Annex II species that are a primary reason for selection: Desmoulin's whorl snail <i>Vertigo moulinsiana</i> , sea lamprey <i>Petromyzon marinus</i> , brook lamprey <i>Lampetra planeri</i> , Atlantic salmon <i>Salmo salar</i> and bullhead <i>Cottus gobio</i> .	European importance

4.2 Habitats

Buildings, sealed surfaces, modified grassland, introduced shrub and individual trees are present on-site, none of which are considered to be Section 41 HPI. These habitats have been described below and are shown on a Habitat Map in **Appendix 2**.

4.2.1 Buildings

A description of the buildings on-site is provided in relation to their bat roosting suitability in **Section 4.3.7**.

4.2.2 Developed Land/Sealed Surface

A parking area and pavement are present on-site, which are of **negligible** importance due to absence of any ecological features (**Figure 4.1**).

Figure 0.1 Sealed surfaces



4.2.3 Modified Grassland

Intensively mown amenity grassland surrounds the surgery and the car park (**Figure 4.2**). Species comprise annual meadow grass *Poa annua*, perennial ryegrass *Lolium perenne*, common daisy *Bellis perennis*,

dandelion *Taraxacum officinale* agg., meadow buttercup *Ranunculus acris*, white clover *Trifolium repens* and springy turf moss *Rhytidiadelphus squarrosus*. The grassland is of **negligible** importance due to its lack of plant diversity and intense management.

Figure 4.2 Modified grassland, facing south



4.2.4 Introduced Shrubs

Ornamental shrubs are present in several locations on the site (**Figures 4.3 & 4.4**). Species comprise Himalayan cotoneaster *Cotoneaster simonsii*²², Japanese anemone *Anemone hupehensis*, *Euphorbia* sp., sedum *Hylotelephium* sp., palm and other non-natives. The shrubs are considered to be of **negligible** importance due to being dominated by non-native varieties.

Figure 4.3 Cotoneaster on the south boundary



Figure 4.4 Palm plants in the north of the site



4.2.5 Trees

Three semi-mature trees – field maple *Acer campestre*, ash *Fraxinus excelsior* and a non-native deciduous tree are present on-site. These are considered to be of value within the context of the **site** (**Figures 4.5 – 4.7**).

²² An invasive species listed under Schedule 9 of the WCA.

Figure 4.5 Non-native tree adjacent to the car park**Figure 4.6** Non-native tree on the south boundary**Figure 4.7** Field maple in the northwest corner of the site

4.3 Protected & Notable Species

Records of protected and notable species for the last ten years have been included in the assessment below²³. None of the records originate from the site and MAGIC did not return any records of PS Mitigation Licences from within 1km of the site.

4.3.1 Plants

A stand of Himalayan cotoneaster is present along the south boundary of the site (see **Appendix 2**). Himalayan cotoneaster is an invasive species listed under Schedule 9 of the WCA and is therefore of **legal** consideration for the project.

4.3.2 Invertebrates

Few observations of invertebrates were made during the survey, however, from an assessment of the habitat types it is expected that the site is likely to support a range of common species, but most unlikely to support any rare/notable species. Invertebrate interest is therefore considered to be of value within the context of the **site**.

²³ Most record locations are confidential have therefore only been included where available or appropriate.

4.3.3 Amphibians

Only one record of common toad *Bufo bufo* (2020) was returned from within 1km of the site and there appear to be no ponds located within 500m of the site (OS Maps, 2025). Habitat suitability on-site is also considered to be of **negligible** importance for amphibians, including the legally protected GCN.

4.3.4 Reptiles

One record of slow-worm *Anguis fragilis* (2020) was returned from within 1km of the site. The site is absent of any habitat structure and therefore considered of **negligible** importance for reptiles.

4.3.5 Birds

Numerous records of Schedule 1 (WCA) and/or BoCC birds were returned from within 1km of the site. No active or old bird nests were recorded within the trees or buildings; however, the trees are considered to hold bird nesting suitability and are therefore of **legal** consideration for the project.

4.3.6 Badgers

No badger records were returned from within 1km of the site and no badger setts were recorded on or within 30m of the site boundary. The site is therefore considered to be of **negligible** importance for badgers.

4.3.7 Bats

No bat records were returned from within 1km of the site.

4.3.7.1 Roosting (Trees)

The trees on-site vary between **negligible** and **low** suitability for roosting bats due to a lack of visible holes, cracks and fissures on the trunks, limbs and branches of the trees.

4.3.7.2 Roosting (Buildings)

Building descriptions and associated photographs are given in **Table 4.4** and **Figures 4.8 – 4.12** below. To summarise, the buildings hold **negligible** suitability for roosting bats. Refer to **Appendix 2** for the building locations.

Table 4.4 Building descriptions

Building feature	Surgery	Shed
Type/use/age/shape/no. storeys	A modern single-storey surgery.	Shed
Roof structure, orientation & dimensions	Open gable. East-west orientation. 15m long x 14m wide.	Typical small garden shed
Roof materials	Concrete interlocking tiles	Roofing felt
Wall construction & material	Brick	Timber single-skin
External building features	uPVC soffit, fascia and window frames. Very flat concrete hanging tiles at the front of the surgery – gaps between overlapping tiles is c.3mm (max) and far too small for a roosting bat.	N/A
External lighting	Lighting from the nearby residential cul-de-sac.	
Voids/lofts/cellars	Two large open roof voids that are c.3m high to the ridge.	N/A
Truss construction & material(s)	Timber W-truss	Typical timber truss
Roof lining	Bitumen lining	N/A
Loft insulation	Roll insulation that is partially boarded-over.	N/A
Internal conditions	Dark, still, undisturbed and open. No daylight could be seen from inside the void. Light cob-webbing along the ridge.	Dark, draughty and likely to be occasionally disturbed. Light cob-webbing along the roof.
Suitability of surrounding habitat for roosting/foraging/commuting bats	Moderate suitability – rural with interconnected tree-lines and agricultural fields.	

Potential bat access points & roosting opportunities	No access points suitable for bats were observed.	
Evidence of bats	None observed inside the building external or internal areas.	
Bat hibernation suitability	Negligible – unheated cellars and suitable crevices leading into solid walls appear to be absent from the buildings.	
Overall bat roosting suitability	Negligible	Negligible

Figure 4.8 East elevation of Building B1



Figure 4.9 Rear elevations of Building B1



Figure 4.10 Hanging tiles on east elevation of Building B1



Figure 4.11 Loft space of Building B1

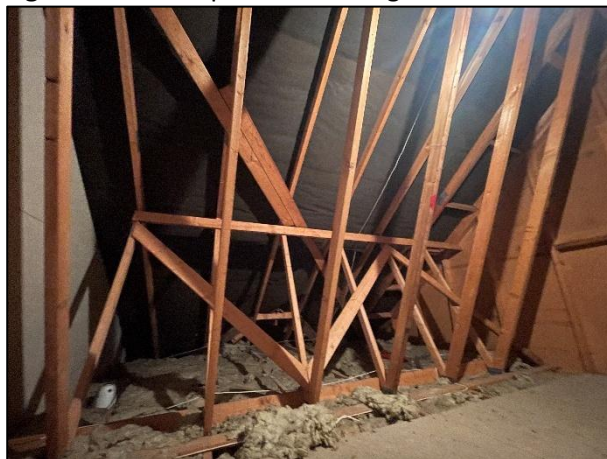


Figure 4.12 Garden shed



4.3.7.3 Foraging & Commuting

The site is considered too small to support significant populations of foraging and commuting bats. Further, most of the site comprises sealed surfaces and modified grassland, which have **negligible** suitability for foraging/commuting bats.

4.3.8 Hazel Dormouse

No records of dormice were returned from within 1km of the site. Further no dormouse nests were observed during a check of the boundary vegetation. The site is therefore considered to be of **negligible** importance for dormice.

4.3.9 Other Notable Mammals

The site holds **low** potential for hedgehogs – which may occasionally travel across the site.

5 Impact Assessment

5.1 Screening Ecological Features

Ecological features have been screened out from the impact assessment for reasons given in **Section 3.6**, as follows:

- **Designated sites:** N/A
- **Habitats:** sealed surfaces, modified grassland, buildings, trees and introduced shrub
- **Protected/notable species:** invertebrates, amphibians, reptiles, badgers, bats and dormice

Impacts of the development proposals will now be discussed in the absence of mitigation for ecological features that are of at least **local** importance / subject to **legal** consideration / where **significant** impacts may arise. These include:

- **Designated sites:** River Avon SAC
- **Habitats:** N/A
- **Protected/notable species:** invasive plants, birds and hedgehogs

5.2 Embedded Mitigation Measures

These measures, which reduce the ecological impact of the scheme, have been ‘designed-in’ to the development plans:

- Only a relatively limited area will be developed.
- Most of the proposed extension to the surgery will lie over the car park which is the least ecologically sensitive place on the site.

5.3 Assessment of Effects

Potential effects that are predicted to occur during construction and operation of the development have been discussed below where appropriate for the above ecological features.

5.3.1 River Avon SAC

The site is located in the River Avon SAC’s zone of influence, which is a nutrient sensitive catchment for phosphorus. The surgery is already in use and the proposed extension is unlikely to lead to an increase in phosphorus entering the catchment. Further, no overnight accommodation is proposed. Impacts on the River Avon are therefore considered to be **non-significant**

5.3.2 Trees

The trees are to be retained as part of the development. Impacts on trees are therefore expected to be **non-significant**.

5.3.3 Invasive Species

Inappropriate management/removal of the Himalayan cotoneaster on the south site boundary during construction could lead to it spreading off-site, contravening the WCA. This would be considered a **significant adverse** impact.

5.3.4 Birds

All birds, their nests and chicks are protected by the WCA while on the nest. Inappropriate timing and methods of any dense vegetation clearance (e.g. of shrubs or trees) may lead to a **significant adverse** impact due to a potential breach of WCA legislation.

5.3.5 Hedgehogs

Hedgehogs may fall into excavations left open over-night during construction leading to potential crushing/asphyxiation – this is considered a **significant adverse** impact under the Wild Mammals (Protection) Act 1996.

6 Further Surveys/Assessments

- No further surveys are required to support the planning application.
- A Biodiversity Net Gain Assessment is not required, as the extent of habitat affected is less than 25m², rendering the development exempt²⁴.

7 Precautionary Measures, Avoidance & General Mitigation

The measures below shall be implemented to avoid/reduce any anticipated adverse impacts on ecological features and ensure compliance with wildlife legislation and policy (see **Appendix 1**).

- **Himalayan cotoneaster:** manually dig out the cotoneaster on the south boundary and immediately bag it, ensuring that none of the berries are left behind. Dispose of the bagged-cotoneaster as controlled waste at a licensed waste facility to ensure that this invasive species is not spread off-site.
- **Hedgehogs:** leave excavations covered overnight (e.g. lay plyboard flush with the surrounding ground) to prevent wildlife access, or secure planks to allow any animals that fall in to escape during construction. A member of staff shall check the site at the end of each working day to ensure that these provisions have been made. Excavations must be checked daily to ensure that no animals have become trapped.
- **General:** stop works and seek advice from an SQE if any protected/notable species or their signs are found during site clearance/construction (e.g. mammal holes or nests with eggs and/or young).

²⁴ <https://www.gov.uk/guidance/biodiversity-net-gain-exempt-developments>

8 Enhancements

New developments are required to comply with the NPPF and local planning policy by including biodiversity enhancements. Measures have therefore been provided below to ensure that the development complies with this – these must be incorporated within the relevant plans.

- **General Planting:** use wildlife-friendly species within any new planting. Refer to **Appendix 3** for suitable species.
- **Shrubs:** replace the Himalayan cotoneaster with a suitable native shrub mix such as blackthorn *Prunus spinosa*, crab apple *Malus sylvestris*, dogwood *Cornus sanguinea*, guelder rose *Viburnum opulus* and hazel *Corylus avellana*. Replace other non-native shrub planting with suitable species in **Appendix 3**.
- **Lawns:** seed the proposed lawns with Emorsgate EL1 – Flowering Lawn Mixture²⁵.
- **Invertebrates:** install two insect houses in sheltered, warm locations e.g. within any new flower beds to provide over-wintering sites for beneficial insects such as lady birds and lacewings, which typically prey on pest species.
- **Bats:** install two bat access tiles onto the surgery's south-facing roof²⁶.
- **Birds:** if appropriate, integrate two Sparrow Terraces into the walls of the proposed extension at a height of 3-5m, avoiding direct sunlight (ideally north-facing and never directly south-facing)²⁷.

9 Conclusion

The development can proceed with minimal impact to ecological features if the avoidance/mitigation measures outlined in **Section 7** are implemented. There is also the opportunity to enhance biodiversity within the development by incorporating the measures in **Section 8**.

²⁵ <https://wildseed.co.uk/>

²⁶ Bat access tiles can be purchased from online stores such as Habibat <http://habibat.co.uk/>

²⁷ Sparrow terraces can be purchased from Bird Brick Houses (<https://www.birdbrickhouses.co.uk/brick-nesting-boxes/nesting-boxes/>)

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Appendix 1 Wildlife Legislation & Policy

Legislation

Bern Convention

The *Convention on the Conservation of European Wildlife and Natural Habitats* (the *Bern Convention*) was adopted in Bern, Switzerland in 1979, and was ratified in 1982. Its aims are to protect wild plants and animals and their habitats listed in Appendices 1 and 2 of the Convention, and regulate the exploitation of species listed in Appendix 3. The regulation imposes legal obligations on participating countries to protect over 500 plant species and more than 1000 animals.

Bonn Convention

The Convention on the Conservation of Migratory Species of Wild Animals or 'Bonn Convention' was adopted in Bonn, Germany in 1979 and came into force in 1985. Participating states agree to work together to preserve migratory species and their habitats by providing strict protection to species listed in Appendix I of the Convention. It also establishes agreements for the conservation and management of migratory species listed in Appendix II. In the UK, the requirements of the convention are implemented via the Wildlife & Countryside Act 1981 (as amended), Wildlife (Northern Ireland) Order 1985 (as amended), Nature Conservation and Amenity Lands (Northern Ireland) Order 1985 and the Countryside and Rights of Way Act 2000 (CRoW) (England and Wales).

The Conservation of Habitats & Species (Amendment) (EU Exit) Regulations 2019

Special Areas of Conservation (SACs) and Special Protection Areas (SPAs) are areas in the UK protected by The Conservation of Habitats & Species (Amendment) (EU Exit) Regulations 2019. Under this legislation, public bodies must help preserve, maintain and re-establish the habitats in these areas for wild flora and fauna. The Regulations also make it an offence to deliberately capture, kill, disturb or trade in the animals listed in Schedule 2, or pick, uproot, destroy, or trade in the plants listed in Schedule 5 - see below:

Schedule 2 – European Protected Species of Animals	Schedule 5 – European Protected Species of Plants
Horseshoe bats <i>Rhinolophidae</i> - all species	Shore dock <i>Rumex rupestris</i>
Common bats <i>Vespertilionidae</i> - all species	Killarney fern <i>Trichomanes speciosum</i>
Large blue butterfly <i>Maculinea arion</i>	Early gentian <i>Gentianella anglica</i>
Wild cat <i>Felis silvestris</i>	Lady's-slipper <i>Cypripedium calceolus</i>
Dolphins, porpoises and whales Cetacea – all sp.	Creeping marshwort <i>Apium repens</i>
Dormouse <i>Muscardinus avellanarius</i>	Slender naiad <i>Najas flexilis</i>
Pool frog <i>Rana lessonae</i>	Fen orchid <i>Liparis loeselii</i>
Sand lizard <i>Lacerta agilis</i>	Floating-leaved water plantain <i>Luronium natans</i>
Fisher's estuarine moth <i>Gortyna borellii lunata</i>	Yellow marsh saxifrage <i>Saxifraga hirculus</i>
Great crested newt <i>Triturus cristatus</i>	
Otter <i>Lutra lutra</i>	
Lesser whirlpool ram's-horn snail <i>Anisus vorticulus</i>	
Smooth snake <i>Coronella austriaca</i>	
Sturgeon <i>Acipenser sturio</i>	
Natterjack toad <i>Epidalea calamita</i>	
Marine turtles <i>Caretta caretta</i> , <i>Chelonia mydas</i> , <i>Lepidochelys kempii</i> , <i>Eretmochelys imbricata</i> , <i>Dermochelys coriacea</i>	

Wildlife & Countryside Act 1981 (as amended)

This is the principal mechanism for the legislative protection of wildlife in the UK. This legislation is the chief means by which the 'Bern Convention' is implemented in the UK. Since it was first introduced, the Act has been amended several times.

The Act makes it an offence to (with exception to species listed in Schedule 2) intentionally:

kill, injure, or take any wild bird;

take, damage or destroy the nest of any wild bird while that nest is in use; or

take or destroy an egg of any wild bird.

Or to intentionally do the following to a wild bird listed in Schedule 1:

disturb any wild bird while it is building a nest or is in, on or near a nest containing eggs or young; or

disturb dependent young of such a bird.

In addition, the Act makes it an offence (subject to exceptions) to:

intentionally or recklessly kill, injure or take any wild animal listed on Schedule 5;

interfere with places used for shelter or protection, or intentionally disturbing animals occupying such places; and

the Act also prohibits certain methods of killing, injuring, or taking wild animals.

Finally, the Act also makes it an offence (subject to exceptions) to:

intentionally pick, uproot or destroy any wild plant listed in Schedule 8, or any seed or spore attached to any such wild plant;

unless an authorised person, intentionally uproot any wild plant not included in Schedule 8; or

sell, offer or expose for sale, or possess (for the purposes of trade), any live or dead wild plant included in Schedule 8, or any part of, or anything derived from, such a plant.

Following all amendments to the Act, Schedule 5 'Animals which are Protected' contains a total of 154 species of animal, including several mammals, reptiles, amphibians, fish and invertebrates. Schedule 8 'Plants which are Protected' of the Act, contains 185 species, including higher plants, bryophytes and fungi and lichens. A comprehensive and up-to-date list of these species can be obtained from the JNCC website.

Part 14 of the Act makes unlawful to plant or otherwise cause to grow in the wild any plant which is listed in Part II of Schedule 9. It is recommended that plant material of these species is disposed of as bio-hazardous waste, and these plants should not be used in planting schemes.

Schedule 1 - Birds which are protected by special penalties			
Avocet	<i>Recurvirostra avosetta</i>	Osprey	<i>Pandion haliaetus</i>
Bee-eater	<i>Merops apiaster</i>	Owl, Barn	<i>Tyto alba</i>
Bittern	<i>Botaurus stellaris</i>	Owl, Snowy	<i>Nyctea scandiaca</i>
Bittern, Little	<i>Ixobrychus minutus</i>	Peregrine	<i>Falco peregrinus</i>
Bluethroat	<i>Luscinia svecica</i>	Petrel, Leach's	<i>Oceanodroma leucorhoa</i>
Brambling	<i>Fringilla montifringilla</i>	Phalarope, Red-necked	<i>Phalaropus lobatus</i>
Bunting, Cirl	<i>Emberiza cirlus</i>	Plover, Kentish	<i>Charadrius alexandrinus</i>
Bunting, Lapland	<i>Calcarius lapponicus</i>	Plover, Little Ringed	<i>Charadrius dubius</i>
Bunting, Snow	<i>Plectrophenax nivalis</i>	Quail, Common	<i>Coturnix coturnix</i>
Buzzard, Honey	<i>Pernis apivorus</i>	Redstart, Black	<i>Phoenicurus ochruros</i>
Capercaillie	<i>Tetrao urogallus</i>	Redwing	<i>Turdus iliacus</i>
Chough	<i>Pyrrhocorax pyrrhocorax</i>	Rosefinch, Scarlet	<i>Carpodacus erythrinus</i>
Corncrake	<i>Crex crex</i>	Ruff	<i>Philomachus pugnax</i>
Crake, Spotted	<i>Porzana porzana</i>	Sandpiper, Green	<i>Tringa ochropus</i>
Crossbills (all species)	<i>Loxia</i>	Sandpiper, Purple	<i>Calidris maritima</i>

Curlew, Stone	<i>Burhinus oedicnemus</i>	Sandpiper, Wood	<i>Tringa glareola</i>
Divers (all species)	<i>Gavia</i>	Scaup	<i>Aythya marila</i>
Dotterel	<i>Charadrius morinellus</i>	Scoter, Common	<i>Melanitta nigra</i>
Duck, Long-tailed	<i>Clangula hyemalis</i>	Scoter, Velvet	<i>Melanitta fusca</i>
Eagle, Golden	<i>Aquila chrysaetos</i>	Serin	<i>Serinus serinus</i>
Eagle, White-tailed	<i>Haliaeetus albicilla</i>	Shorelark	<i>Eremophila alpestris</i>
Falcon, Gyr	<i>Falco rusticolus</i>	Shrike, Red-backed	<i>Lanius collurio</i>
Fieldfare	<i>Turdus pilaris</i>	Spoonbill	<i>Platalea leucorodia</i>
Firecrest	<i>Regulus ignicapillus</i>	Stilt, Black-winged	<i>Himantopus himantopus</i>
Garganey	<i>Anas querquedula</i>	Stint, Temminck's	<i>Calidris temminckii</i>
Godwit, Black-tailed	<i>Limosa limosa</i>	Swan, Bewick's	<i>Cygnus bewickii</i>
Goshawk	<i>Accipiter gentilis</i>	Swan, Whooper	<i>Cygnus cygnus</i>
Grebe, Black-necked	<i>Podiceps nigricollis</i>	Tern, Black	<i>Chlidonias niger</i>
Grebe, Slavonian	<i>Podiceps auritus</i>	Tern, Little	<i>Sterna albifrons</i>
Greenshank	<i>Tringa nebularia</i>	Tern, Roseate	<i>Sterna dougallii</i>
Gull, Little	<i>Larus minutus</i>	Tit, Bearded	<i>Panurus biarmicus</i>
Gull, Mediterranean	<i>Larus melanocephalus</i>	Tit, Crested	<i>Parus cristatus</i>
Harriers (all species)	<i>Circus</i>	Treecreeper, Short-toed	<i>Certhia brachydactyla</i>
Heron, Purple	<i>Ardea purpurea</i>	Warbler, Cetti's	<i>Cettia cetti</i>
Hobby	<i>Falco subbuteo</i>	Warbler, Dartford	<i>Sylvia undata</i>
Hoopoe	<i>Upupa epop</i>	Warbler, Marsh	<i>Acrocephalus palustris</i>
Kingfisher	<i>Alcedo atthis</i>	Warbler, Savi's	<i>Locustella luscinioides</i>
Kite, Red	<i>Milvus milvus</i>	Whimbrel	<i>Numenius phaeopus</i>
Merlin	<i>Falco columbarius</i>	Woodlark	<i>Lullula arborea</i>
Oriole, Golden	<i>Oriolus oriolus</i>	Wryneck	<i>Jynx torquilla</i>
Animal (Vertebrate) Species Listed in Schedule 5 (full legal protection at all times)			
Horseshoe Bats (all species)	<i>Rhinolophidae</i>	Newt – Great Crested	<i>Triturus cristatus</i>
Typical Bats (all species)	<i>Vespertilionidae</i>	Snake – Smooth	<i>Coronella austriaca</i>
Dolphin – Bottle-nosed	<i>Tursiops truncatus (tursio)</i>	Toad, Natterjack	<i>Epidalea calamita</i>
Dolphin – Common	<i>Delphinus delphis</i>	Turtles – All Species	<i>Cheloniidae & Dermochelyidae</i>
Dormouse – Hazel	<i>Muscardinus avellanarius</i>	Basking Shark	<i>Cetorhinus maximus</i>
Pine Marten	<i>Martes martes</i>	Burbot	<i>Lota lota</i>
Porpoise – Harbour	<i>Phocaena phocaena</i>	Goby – Giant	<i>Gobius cobitis</i>
Otter – Eurasian	<i>Lutra lutra</i>	Goby – Couch's	<i>Gobius couchii</i>
Squirrel – Red	<i>Sciurus vulgaris</i>	Seahorse – Short-snouted ¹	<i>Hippocampus hippocampus</i>
Walrus	<i>Odobenus rosmarus</i>	Seahorse – Spiny	<i>Hippocampus guttulatus</i>
Water Vole	<i>Arvicola amphibia</i>	Sturgeon	<i>Acipenser sturio</i>
Whales – All Species	<i>Cetacea</i>	Vendace	<i>Coregonus albula</i>
Wildcat	<i>Felis sylvestris</i>	Whitefish	<i>Coregonus lavaretus</i>
Lizard – Sand	<i>Lacerta agilis</i>		
Animal (Vertebrate) Species Protected under Section 9 (1) part: Killing and Injuring & Section 9 (5) Sale			
Adder	<i>Vipera berus</i>	Slow-worm	<i>Anguis fragilis</i>
Lizard – Viviparous	<i>Zootoca vivipara</i>	Snake – Grass	<i>Natrix helvetica (natrix)</i>
Animals (Vertebrate) Species Protected under Section 9 (5) Sale only			
Frog – Common	<i>Rana temporaria</i>	Newt – Smooth	<i>Lissotriton vulgaris</i>
Newt – Palmate	<i>Lissotriton helvetica</i>	Toad – Common	<i>Bufo bufo</i>
Animals (Vertebrate) Species Protected under Section 9 (1) (4)(a): Killing, Injuring & Taking and Damage / Destruction of place of shelter / protection			
Allis Shad	<i>Alosa alosa</i>	Shark – Angel	<i>Squatina squatina</i>
Twaite Shad	<i>Alosa fallax</i>		
Butterflies & Moths – Full Protection under Schedule 5 at all times			
High Brown Fritillary	<i>Argynnis adippe</i>	Fisher's Estuarine Moth	<i>Gortyna borelii</i>
Large Blue	<i>Maculinea arion</i>	Barberry Carpet	<i>Pareulype berberata</i>
Heath Fritillary	<i>Mellicta athalea</i>	Black-veined Moth	<i>Siona lineata</i>
Marsh Fritillary	<i>Eurodryas aurinia</i>	Sussex Emerald	<i>Thalera fimbrialis</i>
Swallowtail	<i>Papilio machaon britannicus</i>	Essex Emerald	<i>Thetidia smaragdalis</i>
Large Copper	<i>Lycaena dispar</i>	Fiery Clearwing	<i>Bembecia chrysidiformis</i>
Reddish-buff Moth	<i>Acosmetia caliginosa</i>	New-Forest Burnet	<i>Zygaena viciae</i>
Butterflies – Protected under Section 9 (5) Sale Only			
Purple Emperor	<i>Apatura iris</i>	Adonis Blue	<i>Lysandra bellargus</i>
Northern Brown Argus	<i>Aricia artaxerxes</i>	Chalkhill Blue	<i>Lysandra coridon</i>

Pearl-bordered Fritillary	<i>Boloria euphrosyne</i>	Glanville Fritillary	<i>Melitaea cinxia</i>
Chequered Skipper	<i>Carterocephalus palaemon</i>	Large Tortoiseshell	<i>Nymphalis polychloros</i>
Large Heath	<i>Coenonympha tullia</i>	Silver-studded Blue	<i>Plebejus argus</i>
Small Blue	<i>Cupido minimus</i>	Black Hairstreak	<i>Strymonidia pruni</i>
Mountain Ringlet	<i>Erebia epiphron</i>	White-letter Hairstreak	<i>Strymonidia w-album</i>
Duke of Burgundy	<i>Hamearis lucina</i>	Brown Hairstreak	<i>Thecla betulae</i>
Silver-spotted Skipper	<i>Hesperia comma</i>	Lulworth Skipper	<i>Thymelicus acteon</i>
Wood White	<i>Leptidea sinapis</i>		
Other Invertebrates – Full Protection under Schedule 5 at all times			
Rainbow Leaf-beetle	<i>Chrysolina cerealis</i>	Tadpole Shrimp	<i>Triops cancriformis</i>
Spangled Diving-beetle	<i>Graphopterus zonatus</i>	Trembling Sea-mat	<i>Victorella pavidia</i>
Lesser Silver Water-beetle	<i>Hydrochara caraboides</i>	De Folin's Lagoon Snail	<i>Caecum armoricum</i>
Moccas Beetle	<i>Hypebaeus flavipes</i>	Sandbowl Snail	<i>Catinella arenaria</i>
Violet Click-beetle	<i>Limonicus violaceus</i>	Freshwater Pearl Mussel	<i>Margaritifera margaritifera</i>
Bembridge Beetle	<i>Parcymus aeneus</i>	Glutinous Snail	<i>Myxas glutinosa</i>
New Forest Cicada	<i>Cicadetta montana</i>	Lagoon Snail	<i>Paludinella littorina</i>
Wart-Biter	<i>Decticus verrucivorus</i>	Lagoon Sea Slug	<i>Tenellia adspersa</i>
Mole-Cricket	<i>Gryllotalpa gryllotalpa</i>	Northern Hatchet-shell	<i>Thyasira gouldi</i>
Field-Cricket	<i>Gryllus campestris</i>	Tentacled Lagoon-worm	<i>Alkmaria romijni</i>
Norfolk Hawker Dragonfly	<i>Aeshna isosceles</i>	Lagoon Sand-worm	<i>Armandia cirrhosa</i>
Southern Damselfly	<i>Coenagrion mercuriale</i>	Medicinal Leech	<i>Hirudo medicinalis</i>
Fen Raft Spider	<i>Dolomedes fimbriatus</i>	Marine Hydroid	<i>Clavopsella navis</i>
Ladybird Spider	<i>Eresus niger (cinaberinus)</i>	Ivell's Sea Anemone	<i>Edwardsia ivelli</i>
Fairy Shrimp	<i>Chirocephalus diaphanus</i>	Starlet Sea Anemone	<i>Nematosella vectensis</i>
Lagoon Sand Shrimp	<i>Gammarus insensibilis</i>	Atlantic Stream (White-clawed) Crayfish	<i>Austropotamobius pallipes</i>
Other Invertebrates Protected under Section 9 (1) Possession & 9 (2) (5) Sale only			
Stag Beetle	<i>Lucanus cervus</i>	Roman Snail ²⁸	<i>Helix pomatia</i>
Fan Mussel	<i>Atrina fragilis</i>	Pink Sea-fan	<i>Eunicella verrucosa</i>
Other Invertebrates Protected under Section 9 (4) (a) Damage / Destruction of Place of Shelter / Protection only			
Mire Pill Beetle	<i>Curimopsis nigrita</i>		
Vascular Plant Species - Full Protection under Schedule 8 at all times (previous Scientific name in brackets)			
Adder's-tongue Least	<i>Ophioglossum lusitanicum</i>	Lily – Snowdon	<i>Gagea serotina (Lloydia serotina)</i>
Alison- Small	<i>Alyssum alyssoides</i>	Marsh-mallow – Rough	<i>Malva setigera (Althaea hirsuta)</i>
Broomrape – Bedstraw	<i>Orobancha caryophyllacea</i>	Milk-parsley – Cambridge	<i>Selinum carvifolia</i>
Broomrape – Oxtongue	<i>Orobancha picridis</i>	Mudwort – Welsh	<i>Limosella aquatica</i>
Broomrape – Thistle	<i>Orobancha reticulata</i> ⁴	Naiad – Holly-leaved	<i>Najas marina</i>
Cabbage – Lundy	<i>Coincya wrightii (Rhynchosinapis wrightii)</i>	Orache – Stalked	<i>Atriplex pedunculata (Halimione pedunculata)</i>
Calamint – Wood	<i>Clinopodium menthifolium (Calamintha sylvatica)</i>	Orchid – Early Spider	<i>Ophrys sphegodes</i>
Catchfly – Alpine	<i>Silene suecica (Lychnis alpina)</i>	Orchid – Ghost	<i>Epipogium aphyllum</i>
Centaury – Slender	<i>Centaureum tenuiflorum</i>	Orchid – Lapland Marsh	<i>Dactylorhiza lapponica</i>
Cinquefoil – Rock	<i>Potentilla rupestris</i>	Orchid – Late Spider	<i>Ophrys fuciflora</i>
Clary – Meadow	<i>Salvia pratensis</i>	Orchid – Lizard	<i>Himantoglossum hircinum</i>
Club-rush – Triangular	<i>Schoenoplectus triqueter (Scirpus triqueter)</i>	Orchid – Military	<i>Orchis militaris</i>
Colt's-foot – Purple	<i>Homogyne alpina</i>	Orchid – Monkey	<i>Orchis simia</i>
Cotoneaster – Wild	<i>Cotoneaster cambricus (C. integerrimus)</i>	Pear – Plymouth	<i>Pyrus cordata</i>
Cotton-grass – Slender	<i>Eriophorum gracile</i>	Pennycress – Perfoliate	<i>Microthlaspi perfoliatum (Thlaspi perfoliatum)</i>
Cow-wheat – Field	<i>Melampyrum arvense</i>	Pennyroyal	<i>Mentha pulegium</i>
Crocus – Sand	<i>Romulus columnae</i>	Pigmyweed	<i>Crassula aquatica</i>

²⁸ England only

Cudweed – Broad-leaved	<i>Filago pyramidata</i>	Pine - Ground	<i>Ajuga chamaepitys</i>
Cudweed – Jersey	<i>Gnaphalium luteoalbum</i>	Pink – Cheddar	<i>Dianthus gratianopolitanus</i>
Cudweed – Red-tipped	<i>Filago lutescens</i>	Pink – Childing	<i>Petrorhagia nanteuillii</i>
Cut-grass	<i>Leersia oryzoides</i>	Ragwort – Fen	<i>Jacobaea paludosa (Senecio paludosa)</i>
Deptford Pink	<i>Dianthus armeria</i>	Ramping-fumitory – Martin's	<i>Fumaria reuteri (F. martinii)</i>
Diapensia	<i>Diapensia lapponica</i>	Rampion – Spiked	<i>Phyteuma spicata</i>
Eryngo – Field	<i>Eryngium campestre</i>	Restharrow – Small	<i>Ononis reclinata</i>
Fern – Dickie's-bladder	<i>Cystopteris dickieana</i>	Rock-cress – Alpine	<i>Arabis alpina</i>
Fleabane – Alpine	<i>Erigeron borealis</i>	Rock-cress – Bristol	<i>Arabis scabra</i>
Fleabane – Small	<i>Pulicaria vulgaris</i>	Sandwort – Norwegian	<i>Arenaria norvegica</i> ⁵
Galingale – Brown	<i>Cyperus fuscus</i>	Sandwort – Teesdale	<i>Minuartia stricta</i>
Gentian – Alpine	<i>Gentiana nivalis</i>	Saxifrage – Drooping	<i>Saxifraga cernua</i>
Gentian - Dune	<i>Gentianella amarella subsp. occidentalis (Gentianella uliginosa)</i>	Saxifrage – Tufted	<i>Saxifraga cespitosa</i>
Gentian – Fringed	<i>Gentianopsis ciliata (Gentianella ciliata)</i>	Solomon's-seal – Whorled	<i>Polygonatum verticillatum</i>
Gentian - Spring	<i>Gentiana verna</i>	Sow-thistle – Alpine	<i>Cicerbita alpina</i>
Germander – Cut-leaved	<i>Teucrium botrys</i>	Spearwort – Adder's-tongue	<i>Ranunculus ophioglossifolius</i>
Germander – Water	<i>Teucrium scordium</i>	Speedwell – Fingered	<i>Veronica triphyllos</i>
Gladiolus – Wild	<i>Gladiolus illyricus</i>	Speedwell – Spiked	<i>Veronica spicata</i> ⁶
Goosefoot – Stinking	<i>Chenopodium vulvaria</i>	Spike-rush – Dwarf	<i>Eleocharis parvula</i>
Grass-poly	<i>Lythrum hyssopifolia</i>	South-stack Fleawort	<i>Tephrosia integrifolia ssp. maritima</i>
Hare's-ear – Sick-leaved	<i>Bupleurum falcatum</i>	Star-of-Bethlehem – Early	<i>Gagea bohemica</i>
Hare's-ear – Small	<i>Bupleurum baldense</i>	Starfruit	<i>Damasonium alisma</i>
Hawk's-beard – Stinking	<i>Crepis foetida</i>	Strapwort	<i>Corrigiola littoralis</i>
Hawkweed – Northroe	<i>Hieracium northroense</i>	Violet – Fen	<i>Viola persicifolia</i>
Hawkweed – Shetland	<i>Hieracium zetlandicum</i>	Viper's-grass	<i>Scorzonera humilis</i>
Hawkweed – Weak-leaved	<i>Hieracium attenuatifolium</i>	Water-plantain – Ribbon-leaved	<i>Alisma gramineum</i>
Heath – Blue	<i>Phyllodoce caerulea</i>	Wood-sedge – Starved	<i>Carex depauperata</i>
Helleborine – Red	<i>Cephalanthera rubra</i>	Woodsia – Alpine	<i>Woodsia alpina</i>
Horsetail – Branched	<i>Equisetum ramosissimum</i>	Woodsia – Oblong	<i>Woodsia ilvensis</i>
Hound's-tongue – Green	<i>Cynoglossum germanicum</i>	Wormwood – Field	<i>Artemisia campestris</i>
Knawel – Perennial	<i>Scleranthus perennis</i> ⁷	Woundwort - Downy	<i>Stachys germanica</i>
Knot-grass – Sea	<i>Polygonum maritimum</i>	Woundwort – Limestone	<i>Stachys alpina</i>
Leek – Round-headed	<i>Allium sphaerocephalon</i>	Yellow-rattle – Greater	<i>Rhinanthus angustifolius</i>
Lettuce – Least	<i>Lactuca saligna</i>		
Vascular Plant Species – Partial Protection under Section 13 (2) Protection from commercial exploitation and sale			
Bluebell	<i>Hyacinthoides non-scripta</i>		
Bryophytes – Full Protection under Schedule 8 at all times			
Anamodon – Long-leaved	<i>Anomodon langifolius</i>	Flamingo Moss	<i>Desmatodon cernuus</i>
Blackwort	<i>Southbya nigrella</i>	Frostwort	<i>Gymnomitrium apiculatum</i>
Crystalwort – Lizard	<i>Riccia bifurca</i>	Glaucous Beard Moss	<i>Barbula glauca</i>
Earwort – Marsh	<i>Jamesoniella undulifolia</i>	Green Shield Moss	<i>Buxbaumia viridis</i>
Feathermoss – Polar	<i>Hygrohypnum polare</i>	Hair Silk Moss	<i>Plagiothecium piliferum</i>
Flapwort – Norfolk	<i>Leiocolea rutheana</i>	Knothole Moss	<i>Zygodon forsteri</i>
Grimmia – Blunt-leaved	<i>Grimmia unicolor</i>	Large Yellow Feather Moss	<i>Scorpidium turgescens</i>
Petalwort	<i>Petalophyllum ralfsii</i>	Millimetre Moss	<i>Micromitrium tenerum</i>
Lindenberg's Leafy-Liverwort	<i>Adelanthus lindenbergianus</i>	Multi-fruited River Moss	<i>Cryphaea lamyana</i>
Feather-moss Slender Green	<i>Drepanocladus vernicosus</i>	Nowell's Limestone Moss	<i>Zygodon gracilis</i>
Alpine Copper-Moss	<i>Mielichhoferia melicoferia</i>	Rigid Apple Moss	<i>Bartramia stricta</i>
Baltic Bog-Moss	<i>Sphagnum balticum</i>	Round-leaved feather Moss	<i>Rhynchostegium rotundifolium</i>
Blue Dew-Moss	<i>Saelania glaucescens</i>	Schleicher's Thread Moss	<i>Bryum schleicheri</i>

Blunt-leaved bristle-Moss	<i>Orthotrichum obtusifolium</i>	Triangular Pygmy Moss	<i>Acaulon triquetrum</i>
Bright-Green Cave-Moss	<i>Cyclodictyon laetevirens</i>	Turpswort	<i>Geocalyx graveolens</i>
Cordate Beard Moss	<i>Barbula cordata</i>	Vaucher's Feather Moss	<i>Hypnum vaucheri</i>
Cornish Path Moss	<i>Ditrichum cornubicum</i>	Western Rustwort	<i>Marsupella profunda</i>
Derbyshire Feather Moss	<i>Thamnobryum angustifolium</i>		
Stoneworts – Full Protection under Schedule 8 at all times			
Bearded Stonewort	<i>Chara canescens</i>	Foxtail Stonewort	<i>Lamprothamnium papulosum</i>
Lichens – Full Protection under Schedule 8 at all times			
New Forest Beech Lichen	<i>Enterographa elaborata</i>	Forked Hair Lichen	<i>Bryoria furcellata</i>
Snow Caloplaca	<i>Caloplaca nivalis</i>	Golden Hair Lichen	<i>Teloschistes flavicans</i>
Tree Catapyrenium	<i>Catapyrenium psoromoides</i>	Orange-fruited Elm Lichen	<i>Caloplaca luteoalba</i>
Laurer's Catillaria	<i>Catillaria laurai</i>	River Jelly Lichen	<i>Collema dichotomum</i>
Convoluted Cladonia	<i>Cladonia convoluta</i>	Starry Breck Lichen	<i>Buellia asterella</i>
Upright Mountain Cladonia	<i>Cladonia stricta</i>	Caledonia Pannaria	<i>Pannaria ignobilis</i>
Goblin Lights	<i>Catolechia wahlenbergii</i>	New Forest Parmelia	<i>Parmelia minarum</i>
Elm Gyalecta	<i>Gyalecta ulmi</i>	Oil Stain Parmentaria	<i>Parmentaria chilensis</i>
Tarn Lecanora	<i>Lecanora archariana</i>	Southern Grey Physcia	<i>Physcia tribacioides</i>
Copper Lecidea	<i>Lecidea inops</i>	Ragged Pseudo-cyphellaria	<i>Pseudocyphellaria lacerata</i>
Arctic Kidney Lichen	<i>Nephroma arcticum</i>	Rusty Alpine Psora	<i>Psora rubiformis</i>
Ciliate Strap Lichen	<i>Heterodermia leucomelos</i>	Rock Nail	<i>Calicium corynellum</i>
Coralloid Rosette Lichen	<i>Heterodermia propagulifera</i>	Serpentine Selanopsora	<i>Selanopsora liparina</i>
Ear-lobed Dog Lichen	<i>Peltigera lepidophora</i>	Sulphur Tresses	<i>Alectoria ochroleuca</i>
Lichens – Partial Protection under Section 13 (2) Commercial Exploitation and Sale Only			
Tree Lungwort	<i>Lobaria pulmonaria</i>		
Fungi – Full Protection under Schedule 8 at all times			
Royal Bolete	<i>Boletus regius</i>	Oak Polypore	<i>Buglossosporus pulvinus</i>
Hedgehog Fungus	<i>Hericum erinaceum</i>	Sandy Stilt Ball	<i>Battaria phalloides</i>
Invasive plant species listed in Schedule 9			
Australian swamp stonecrop or New Zealand pygmyweed	<i>Crassula helmsii</i>	Japanese rose	<i>Rosa rugosa</i>
Californian red seaweed	<i>Pilea californica</i>	Japanese seaweed	<i>Sargassum muticum</i>
Curly waterweed	<i>Lagarosiphon major</i>	Laver seaweeds (except native species)	<i>Porphyra spp</i>
Duck potato	<i>Sagittaria latifolia</i>	Parrot's-feather	<i>Myriophyllum aquaticum</i>
Entire-leaved cotoneaster	<i>Cotoneaster integrifolius</i>	Perfoliate alexanders	<i>Smyrnum perfoliatum</i>
False Virginia creeper	<i>Parthenocissus inserta</i>	Pontic rhododendron	<i>Rhododendron ponticum</i>
Fanwort or Carolina watershield	<i>Cabomba caroliniana</i>	Purple dewplant	<i>Disphyma crassifolium</i>
Few-flowered garlic	<i>Allium paradoxum</i>	Red algae	<i>Grateloupia luxurians</i>
Floating pennywort	<i>Hydrocotyle ranunculoides</i>	Rhododendron	<i>Rhododendron ponticum</i> × <i>Rhododendron maximum</i>
Floating water primrose	<i>Ludwigia peploides</i>	Small-leaved cotoneaster	<i>Cotoneaster microphyllus</i>
Giant hogweed	<i>Heracleum mantegazzianum</i>	Three-cornered garlic	<i>Allium triquetrum</i>
Giant kelp	<i>Macrocystis spp.</i>	Variegated yellow archangel	<i>Lamiastrum galeobdolon</i> subsp. <i>argentatum</i>
Giant knotweed	<i>Fallopia sachalinensis</i>	Virginia creeper	<i>Parthenocissus quinquefolia</i>
Giant rhubarb	<i>Gunnera tinctoria</i>	Wakame	<i>Undaria pinnatifida</i>
Giant salvinia	<i>Salvinia molesta</i>	Wall cotoneaster	<i>Cotoneaster horizontalis</i>
Green seafingers	<i>Codium fragile</i>	Water fern	<i>Azolla filiculoides</i>
Himalayan cotoneaster	<i>Cotoneaster simonsii</i>	Water hyacinth	<i>Eichhornia crassipes</i>
Hollyberry cotoneaster	<i>Cotoneaster bullatus</i>	Water lettuce	<i>Pistia stratiotes</i>

Hooked asparagus seaweed	<i>Asparagopsis armata</i>	Water primrose	<i>Ludwigia grandiflora</i>
Hottentot fig	<i>Carpobrotus edulis</i>	Water primrose	<i>Ludwigia uruguayensis</i>
Hybrid knotweed	<i>Fallopia japonica</i> × <i>Fallopia sachalinensis</i>	Waterweeds	<i>Elodea spp.</i>
Indian (Himalayan) balsam	<i>Impatiens glandulifera</i>	Yellow azalea	<i>Rhododendron luteum</i>
Japanese knotweed	<i>Fallopia japonica</i>		

Protection of Badgers Act 1992

The main legislation protecting badgers in England and Wales is the Protection of Badgers Act 1992 (the 1992 Act). Under the 1992 Act it is an offence to: wilfully kill, injure, take or attempt to kill, injure or take a badger; dig for a badger; interfere with a badger sett by, damaging a sett or any part thereof, destroying a sett, obstructing access to a sett, causing a dog to enter a sett or disturbing a badger while occupying a sett. The 1992 Act defines a badger sett as: “any structure or place which displays signs indicating current use by a badger”.

Natural Environment & Rural Communities (NERC) Act

Section 41 (S41) of this Act requires the Secretary of State to publish a list (in consultation with Natural England) of Habitats and Species which are of Principal Importance for the conservation of biodiversity in England. The S41 list is used to guide decision-makers such as public bodies including local and regional authorities, in implementing their duty under Section 40 of the Natural Environment and Rural Communities (NERC) Act 2006, to have regard to the conservation of biodiversity in England, when carrying out their normal (e.g. planning) functions. The S41 list includes 65 Habitats of Principal Importance and 1,150 Species of Principal Importance.

Birds of Conservation Concern

This is a review of the status of all birds occurring regularly in the United Kingdom. It is regularly updated and is prepared by leading bird conservation organisations, including the British Trust for Ornithology (BTO), Joint Nature Conservation Committee (JNCC) and The Royal Society for the Protection of Birds (RSPB). The latest report was produced in 2015 (Eaton et al, 2015) and identified 67 red list species, 96 amber species, and 81 green species. The criteria are complex, but generally:

Red list species are those that have shown a decline of the breeding population, nonbreeding population or breeding range of more than 50% in the last 25 years.

Amber list species are those that have shown a decline of the breeding population, nonbreeding population or breeding range of between 25% and 50% in the last 25 years. Species that have a UK breeding population of less than 300 or a non-breeding population of less than 900 individuals are also included, together with those whose 50% of the population is localised in 10 sites or fewer and those whose 20% of the European population is found in the UK.

Green list species are all regularly occurring species that do not qualify under any of the red or amber criteria are green listed.

Global IUCN Red List

The International Union for Conservation of Nature (IUCN) Threatened Species was devised to provide a list of those species that are most at risk of becoming extinct globally. It provides taxonomic, conservation status and distribution information about threatened taxa around the globe. The system catalogues threatened species into groups of varying levels of threat, which are: Extinct (EX), Extinct in the Wild (EW), Critically Endangered (CE), Endangered (EN), Vulnerable (VU), Near Threatened (NT), Least Concern (LC), Data

Deficient (DD), Not Evaluated (NE). Criteria for designation into each of the categories is complex, and consider several principles.

Wild Mammals (Protection) Act 1996

This Act offers a form of protection to all wild species of mammals, irrespective of other legislation, and focussed on animal welfare, rather than conservation. Unless covered by one of the exceptions, a person is guilty of an offence if he mutilates, kicks, beats, nails or otherwise impales, stabs, burns, stones, crushes, drowns, drags or asphyxiates any wild mammal with intent to inflict unnecessary suffering. Its application is typically restricted to preventing deliberate harm to wildlife (in general) during construction works etc.

Relevant Protected Species Legislation

Species	Relevant Legislation	Level of Protection
Great Crested Newt	European protected species under the <i>Conservation of Habitats and Species Regulations 2017</i> . Full protection under <i>Schedule 5 of the Wildlife and Countryside Act, 1981 (as amended)</i> .	It is an offence to: intentionally kill, injure, or take great crested newts intentionally or recklessly disturb great crested newts. intentionally or recklessly disturb great crested newts. intentionally or recklessly damage destroy or obstruct access to any place used by the animal for shelter or protection.
Reptiles (adder, grass snake, common lizard & slow-worm)	Partially protected under <i>Schedule 5 of the Wildlife and Countryside Act, 1981 (as amended)</i> .	It is an offence to: intentionally kill or injure these animals. sell, offer for sale, advertise for sale, possess or transport for the purposes of selling any live or dead animals or part of these animals.
Birds	Protection under the <i>Wildlife and Countryside Act, 1981 (as amended)</i> .	It is an offence to: intentionally kill, injure or take any wild bird. intentionally take, damage or destroy nests in use or being built (including ground nesting birds). intentionally take, damage or destroy eggs. Species listed on Schedule 1 of the WCA or their dependant young are afforded additional protection from disturbance whilst they are at their nests.
Badger	<i>Protection of Badgers Act, 1992</i> .	It is an offence to: wilfully kill, injure, take, possess, or cruelly ill-treat a badger, or to attempt to do so. intentionally or recklessly interfere with a sett.
Bats	European protected species under the <i>Conservation of Habitats and Species Regulations 2017</i> . Full protection under <i>Schedule 5 of the Wildlife and Countryside Act, 1981 (as amended)</i> . Protected by the <i>Wild Mammals (Protection) Act 1996</i> .	It is an offence to: intentionally kill, injure, or take any species of bat. intentionally or recklessly disturb bats. intentionally or recklessly damage destroy or obstruct access to bat roosts.

Species	Relevant Legislation	Level of Protection
Hazel Dormouse	European protected species under the <i>Conservation of Habitats and Species Regulations 2017</i> . Full protection under <i>Schedule 5 of the Wildlife and Countryside Act, 1981 (as amended)</i> .	It is an offence to: deliberately capture, injure or kill hazel dormice. damage or destroy a dormouse resting place or breeding site. deliberately or recklessly disturb a hazel dormouse while it's in a structure or place of shelter or protection. block access to structures or places of shelter or protection. possess, sell, control or transport live or dead hazel dormice, or parts of hazel dormice.
Wild Mammals	The <i>Wild Mammals (Protection) Act 1996</i> .	This makes it an offence to: crush or asphyxiate any wild mammal with intent to inflict unnecessary suffering. This may apply during site clearance for development, particularly where burrowing animals such as foxes and rabbits are present, since such animals could be crushed or asphyxiated in their burrows by heavy machinery.

National Planning Policy

The National Planning Policy Framework (NPPF) sets out current government policy on biodiversity and nature conservation and places a duty on planners to make material consideration to the effect of a development on legally protected species when considering planning applications (DCLG, 2021). The NPPF also promotes sustainable development by ensuring that developments take account of the role and value of biodiversity and that it is conserved and enhanced within a development.

Regional & Local Planning Policy and Guidance

Local Structure Plans

County, District and Local Councils have Structure Plans and other policy documents that include targets and policies which aim to maintain and enhance biodiversity. These are used by Planning Authorities to inform planning decisions.

Biodiversity 2020: A Strategy for England's Wildlife & Ecosystem Services

Biodiversity 2020 (DEFRA, 2011) replaces the previous UK Biodiversity Action Plan and sets national targets to be achieved. The intent of Biodiversity 2020, however, is much broader than the protection and enhancement of less common species, and is meant to embrace the wider countryside as a whole. The priority species and habitats considered under Biodiversity 2020 are the SPI & HPI detailed under NERC Act.

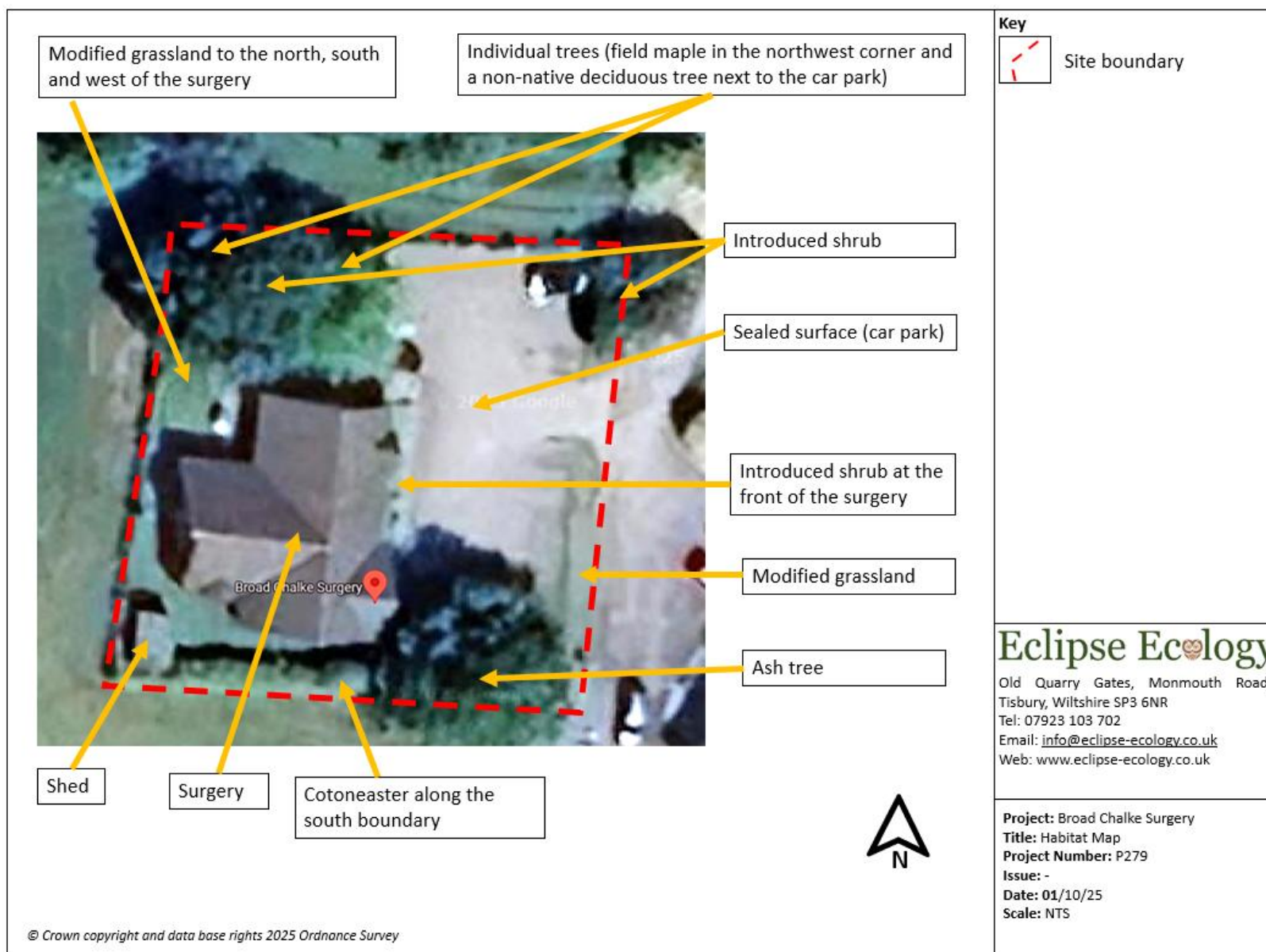
Local Biodiversity Action Plans

Local Biodiversity Action Plans (LBAP) identify habitat and species conservation priorities at a local level (typically at the County level), and are usually drawn up by a consortium of local Government organisations and conservation charities. Some LBAP's may also include Habitat Action Plans (HAP) and/or Species Action Plans (SAP), which are used to guide and inform the local decision-making process.

Natural England Standing Advice

Natural England has adopted national standing advice for protected species. It provides a consistent level of basic advice which can be applied to any planning application that could affect protected species. It replaces some of the individual comments that Natural England has provided in the past to local authorities.

Appendix 2 Habitat Map



Appendix 3 Wildlife-Friendly Plants

Plant Species	Native	Size/Type	Wildlife Notes ²⁹	Soil	Scent	Comment
TREES						
Alder <i>Alnus glutinosa</i>	✓	Large	Good for invertebrates.	Waterlogged		
Aspen <i>Populus tremula</i>	✓	Medium/large	Good for invertebrates.			
Beech <i>Fagus sylvatica</i>	(✓)	Large	Good for invertebrates; beech mast.	Calicole but tolerant.		
Bird cherry <i>Prunus padus</i>	✓	Small	Blackbirds eat the fruit.	Euryoecious	✓	
Cherry plum <i>Prunus cerasifera</i>		Medium	Good for birds			Birds consume the buds as well as fruit.
Apple spp. <i>Malus sylvestris, domestica</i>	(✓)	Small/medium	Flowers and fruit – good for invertebrates, birds. Supports mistletoe.	Euryoecious but best on fertile soils.		Avoid spraying domestic varieties with pesticides. Large number of varieties.
Downy birch <i>Betula pubescens</i>	✓	Small	Invertebrates	Grows on poorly drained soils, cold resistant.		
Field maple <i>Acer campestre</i>	✓	Medium	Flowers provide nectar and pollen for bees and birds. Small mammals eat the fruits. Attractive to moths, ladybirds and hoverfly.	Sandy or clay		
Hawthorn <i>Crataegus monogyna</i>	(✓)	Small (hedge)	Masses of flowers and berries, good protection for bird nests. Food plant of many (<200) invertebrates.	Euryoecious		Flowers on previous year's growth so if hedge, leave some untrimmed. NB double-flowered varieties may be sterile.
Holly <i>Ilex aquifolium</i>	(✓)	Medium (hedge)	Good for invertebrates; late berries for birds and good protection for nests, roosts.	Euryoecious		Dioecious – needs one or two ♂ trees for ♀ trees to berry – plant both.
Hornbeam <i>Carpinus betulus</i>	✓	Large	Provides shelter, roosting, nesting and foraging opportunities for birds and small mammals. The food plant for caterpillars of a number of moth species, including the nut tree tussock. Finches and tits and small mammals eat the seeds in autumn.	Euryoecious		
Juneberry <i>Amelanchier lamarckii</i>		Small	Nectar and fruit	Sandy		North American native naturalised in Britain occasionally.
Midland hawthorn <i>Crataegus laevigata</i>	✓	Small (hedge)	Masses of flowers and berries, good protection for bird nests. Food plant of many invertebrates.	Euryoecious		Flowers on previous year's growth so if in hedge, leave some untrimmed.

²⁹ Plants can have benefits to several species. Only a few of the groups to which a plant may be of particular importance are listed here, or the feature of the plant of special value. The ✓ in brackets thus (✓) in the "British Native" column indicates there are also several horticultural varieties similar enough to be just as good for wildlife.

Oaks <i>Quercus robur, petraea</i>	✓	Large	Huge number of invertebrates, and birds and mammals associated with this species.	Euryoecious		Jays eat the acorns.
Pear <i>Pyrus communis</i>		Medium	Pears are eaten by birds, and the flowers are a food source for bees. Caterpillars live in the foliage.	Loamy, sandy or clay soils, though best in rich, loamy soil.		
Rowan <i>Sorbus aucuparia</i>	(✓)	Medium	Nectar and fruit for birds			
Silver birch <i>Betula pendula</i>	(✓)	Medium	Invertebrates	Light/acid		Not long lived but good nurse tree.
Sweet chestnut <i>Castanea sativa</i>	✓	Large	Flowers provide nectar and pollen for bees. Micro-moths feed on the leaves and nuts.	Loam, sandy		
Lime spp <i>Tilia cordata, platyphyllos</i>	✓	Large	Good for invertebrates			Aphid infestations common
Whitebeam <i>Sorbus aria</i>	(✓)	Medium	Nectar and fruit for birds			Many varieties with plenty of fruit.
Wild cherry <i>Prunus avium</i>	✓	Medium/large	Good for invertebrates and birds.	Fertile soil - euryoecious		
Wild service tree <i>Sorbus torminalis</i>	✓	Large	Flowers provide pollen and nectar for insects, while the berries are eaten by birds. The leaves are eaten by caterpillars of the moths <i>Bucculatrix bechsteinella</i> and <i>Phyllonorycter mespilella</i> .			
Willows <i>Salix alba, caprea, fragilis, purpurea</i> etc	(✓)	Medium-large	Pollen, good for invertebrates.	Moist/wet		Pollards well
Wych elm <i>Ulmus glabra</i>	✓	Large	Birds eat the seeds and the leaves provide food for the caterpillars of many moths, including the peppered, light emerald and white-spotted pinion. Caterpillars of the white-letter hairstreak butterfly feed on elms.			
Yew <i>Taxus baccata</i>	✓	Medium	Winter shelter, fruit	Euryoecious		Toxic to some species including man
SHRUBS (see also small & hedge trees above)						
Alder buckthorn <i>Frangula alnus</i>	✓	Medium	Food plant of brimstone butterfly.			
Barberry <i>Berberis</i> spp		Various	Nectar, fruit, cover for birds			
Bilberry <i>Vaccinium myrtillus</i>	✓	Small	Good for birds and various insects.	Well-drained acidic soil with a pH between 4.5 and 6.		
Black currant <i>Ribes nigrum</i>		Medium	Good for bees and other insects.	Moist but well-drained, well-drained.		
Blackthorn <i>Prunus spinosa</i>	✓	Large	Nectar, fruit, spines give protective	Euryoecious		

			cover for nests and roosting.			
Bluebeard <i>Caryopteris x clandonensis</i>		Small	Late nectar, good for bees and butterflies, etc.			
Broom <i>Cytisus</i> spp	(✓)	Medium	Nectar, good for invertebrates	Acidophile		
Buckthorn <i>Rhamnus catharticus</i>	✓	Medium	Food plant of brimstone butterfly.			
Butcher's broom <i>Ruscus aculeatus</i>	✓	Small		Euryoecious		
Butterfly bush <i>Buddleia davidii</i>		Large	Late nectar, good for invertebrates	Xeric/ saxicolous	✓	Can be invasive. Prune hard in early spring for late blooms. Avoid the species large horticultural varieties – use 'Miss Ruby' or the dwarf 'Low and Behold Blue Chip'.
Cowberry <i>Vaccinium vitis-idaea</i>	✓	Small	Caterpillars of the green hairstreak butterfly <i>Callophrys rubi</i> feed on cowberry, as do the larvae of a number of moths, including the northern spinach, the grey mountain carpet and the Manchester treble-bar moth.			
Cross-leaved heath <i>Erica tetralix</i>	✓	Small	Good for bees.	Acidic, nutrient-poor substrates, such as shallow peats or sandy soils with impeded drainage.		
Daphne <i>Daphne odora</i>		Large	Bees are attracted to the nectar and pollen and butterflies, moths, and flies are attracted to the nectar in this winter flowering shrub.	Moist but well-drained, well-drained. Neutral – alkaline.		
Dogwood <i>Cornus sanguinea</i>	(✓)	Medium/large	Fruit			Very early flowers on some spp.
Elder <i>Sambucus nigra</i>	(✓)	Medium/large	Nectar, fruit	Euryoecious		
Escallonia <i>Escallonia</i> spp		Medium	Nectar and nest sites for birds			
Firethorn <i>Pyracanthus angustifolia</i>		Medium	Fruit, nectar, cover for nests/roosts			
Flowering currant <i>Ribes sanguineum</i>		Large	Nectar and pollen for bees.	Well-drained/ light, moist		
Forsythia <i>Forsythia</i> spp		Medium/large	Early nectar for invertebrates.			
Gooseberry <i>Ribes uva-crispa</i>		Medium	Good for bees.			
Gorses <i>Ulex</i> spp	(✓)	Medium	Early nectar, good cover on heathland, etc.	Xeric, low pH	✓	
Guelder rose <i>Viburnum opulus</i>	(✓)	Large	Nectar, fruit	Calcicole		Keep unpruned
Hazel <i>Corylus avellana</i>	✓	Large	Nuts (dormice), food plant of many invertebrates.			Domesticated varieties too.

Heather <i>Calluna vulgaris</i>	(✓)	Small	>100 moths associated with this sp.	Acidophile		
Heathers <i>Erica</i> spp	(✓)	Small	Nectar, invertebrate food plant.	Acidophiles		Many floriferous varieties.
<i>Hebe</i> – see <i>Veronica</i>						
Himalayan honeysuckle <i>Leycesteria formosa</i>		Medium	Good for bees and birds.	Euryoecious		
Juniper <i>Juniperus communis</i>	✓	Medium	Cover, good for invertebrates			
Kapuka <i>Griselinia littoralis</i>		Medium	Shelter	Halophyte		Useful to provide shelter from wind in coastal sites.
Lavender <i>Lavandula</i> varieties		Small/medium	Nectar, seeds – extraordinarily attractive to many insects and other invertebrates.		✓	Aromatic
Laurustinus <i>Viburnum tinus</i>		Large	Winter nectar for invertebrates, berries.	Calcicole		Keep unpruned. There are many other <i>Viburnum</i> spp for scent, nectar and berries.
Lilac <i>Syringa vulgaris</i>		Large	Good for bees and butterflies.	Moist but well-drained, neutral to alkaline soil.		
Mexican orange <i>Choisya ternata</i>		Medium	Good for bees and butterflies.	Euryoecious		
Mezereum <i>Daphne mezereum</i>		Medium	Good for bees and butterflies.	Moist but well-drained, well-drained		
New Zealand holly <i>Olearia macrodonta</i>						
Orange ball buddleia <i>Buddleia globosa</i>		Large	Nectar, good for invertebrates.			
Oregon-grape <i>Mahonia aquifolium</i>		Small/medium	Late winter nectar, fruit.		✓	Spp such as <i>M. japonica</i> are umbricolous.
Osier <i>Salix viminalis</i>		Large	Caterpillars and moths feed on the foliage, including the lackey, herald and red-tipped clearwing. The catkins provide an important source of early nectar and pollen for bees and other insects, and the branches make good nesting and roosting sites for birds.	Moist but well-drained		
Pheasant berry <i>Leycesteria formosa</i>		Medium/large	Fruits			Umbricolous
Portugal laurel <i>Prunus lusitanica</i>		Large	Good for bees.	Euryoecious		
Raspberry <i>Rubus idaeus</i>	✓	Medium	Good for numerous wildlife.	Moisture-retentive, fertile, slightly acidic soil, which is well-drained		
Rosemary <i>Rosmarinus officinalis</i>		Small	Nectar	Calcicole		Aromatic – occasionally naturalized.
Roses <i>Rosa</i> spp	(✓)	Medium	Nectar, fruit and cover.	Various	(✓)	<i>R. arvensis</i> is a good hedging plant. Many domestic roses are valuable for nectar and fruit. <i>R. rubiginosa</i> (sweet briar) is a good native to plant on limy soils.
Shrubby cinquefoil <i>Potentilla fruticosa</i>						

Snowy mespilus <i>Amelanchier canadensis</i> , <i>lamarckii</i>		Large	Birds eat the fruits.	Moist but well-drained, well-drained. Acid – neutral.		
Spindle <i>Euonymus europaeus</i>	✓	Large	Fruit	Calcicole		Berries are toxic to humans.
Sweet bay <i>Laurus nobilis</i>		Large	Nectar, Fruits, winter shelter and nest/roosting sites.	Calcicole	✓	Aromatic. Cut back by severe frosts.
<i>Veronica</i> (sect. <i>Pseudoveronica</i>)		Medium to large	Nectar, especially early and late for invertebrates.			Large group – some with winter flowers but may be tender in UK.
Wayfaring tree <i>Viburnum lantana</i>	✓	Large	Nectar, fruit	Calcicole		Keep unpruned
Wild privet <i>Ligustrum vulgare</i>	✓	Medium/large	Nectar, fruit, winter shelter, nest/roost sites			Avoid pruning to obtain flowers and fruit – better to avoid garden privet <i>L. ovalifolium</i> .
CLIMBERS & WALL PLANTS						
Blackberry <i>Rubus fruticosus</i> agg.	✓	Medium	Nectar, important late fruit resource, excellent cover.	Euryoecious		Invasive but there are cultivars available for gardens which are less aggressive.
Coast silk-tassel <i>Garrya elliptica</i>		Medium	Early pollen, winter cover	Grows on north walls.		Dioecious – pollen on ♂ catkins, small berries on ♀ - umbricolous.
Dog rose and other climbing roses <i>Rosa canina</i> agg. and <i>Rosa</i> spp	(✓)	Various	Nectar, hips	Fertile	(✓)	
Firethorn <i>Pyracantha varieties</i>		Small/medium	Nectar, berries, cover	Euryoecious		
Himalayan clematis <i>Clematis montana</i>		Large	Provides good cover for bird nests and roosts.			
Honeysuckle <i>Lonicera periclymenum</i>	(✓)	Medium to tall	Nectar, berries, cover and nesting sites.		✓	Bark favoured by dormice for nests but several birds use it too.
Hop <i>Humulus lupulus</i>		Medium	Food of comma, red admiral and peacock butterflies.			Naturalised almost everywhere in UK.
Ivy <i>Hedera helix</i>	✓	Large	Winter nectar attracting invertebrates and thus insectivorous birds; berries, good cover.	Tolerates dry, poor soils.		A must for providing winter nectar; food plant of holly blue butterfly and swallow-tailed moth.
Ivy varieties <i>Hedera</i> cultivars		Medium	Cover especially in winter for birds and invertebrates.	Euryoecious		May not be fertile
Japanese quince <i>Chaenomeles japonica</i>		Medium	Early nectar and fruit.			Not all produce fruit – select carefully
Summer jasmine <i>Jasminum officinale</i>		Medium	Nectar		✓	Naturalised in south and central UK
Vines <i>Vitis</i> spp.		Large/very tall	Fruit, cover	Poor		
Winter jasmine <i>Jasminum nudiflorum</i>		Medium	Early nectar			Umbricolous, widely naturalised in south
PERENNIALS/ANNUALS/BULBS/CORMS						
Argentinean vervain <i>Verbena onariensis</i>		Tall	Nectar		✓	
Aubrieta <i>Aubrieta deltoidea</i>		Low	Early nectar	Saxicole		
Bedstraws <i>Galium</i> spp	✓	Short/medium	Food plant of many moths		(✓)	<i>G. aparine</i> is invasive and best avoided.
Bellflowers <i>Campanula</i> spp	(✓)	Medium	Nectar			

Bell heather <i>Erica cinerea</i>	(✓)	Medium	Nectar	Calcifuge		
Bird's- foot-trefoil <i>Lotus corniculatus</i>	✓	Short	Dingy skipper and common blue butterflies' host.			
Borage <i>Borago officinalis</i>		Medium	Nectar	Dry		Spreads
Campions <i>Silene</i> spp	✓	Medium	Nectar		(✓)	Some scented
Bugle <i>Ajuga reptans</i>	(✓)	Low	Early nectar for invertebrates.	Moist		Tolerates some shade.
Candytuft <i>Iberis umbellata</i>		Short	Nectar			
Catmint <i>Nepeta cataria</i>	(✓)	Short-medium	Nectar, good for bees and wasps.			Interesting secondary metabolites – aromatic.
Chicory <i>Cichorium intybus</i>	✓	Tall	Nectar	Calcicole		
Chives <i>Allium schoenoprasum</i>	(✓)	Medium-low clump	Nectar	Calcicole		Rare native but common in cultivation. Other onions too.
<i>Chrysanthemum segetum</i> see <i>Glebionis</i>						
Clovers <i>Trifolium</i> spp	✓	Short	Early nectar, good for bees.			
Comfrets <i>Symphytum</i> spp	(✓)	Medium	Nectar	Moist		
Common knapweed <i>Centaurea nigra</i>	✓	Medium	Late nectar			
Coneflower <i>Echinacea purpurea</i>		Medium	Nectar, seeds for birds			
Corncockle <i>Agrostemma githago</i>	✓	Tall	Nectar			Very rare as native now – grows readily from seed.
Cornflower <i>Centaurea cyanus</i>		Medium	Seeds			Naturalised – scarce
Corn marigold <i>Glebionis segetum</i>		Medium	Good for invertebrates			
Crane's-bills <i>Geranium</i> spp	(✓)	Short/medium	Nectar			Many different varieties
Cuckoo flower <i>Cardamine pratensis</i>	✓	Short	Early nectar, food plant of orange-tip butterfly.	Moist		
Daisy <i>Bellis perennis</i>	✓	Low	Early nectar			
Dandelions, cat's- ears, hawkbits etc. <i>Taraxacum</i> and <i>Asteraceae</i>		Medium/short	Good for invertebrates, early nectar.			
Dead-nettles <i>Lamium</i> spp	(✓)	Short/medium	Early nectar			
Evening primroses <i>Oenothera</i> spp	(✓)	Tall	Nectar and seeds		✓	
Everlastings <i>Helichrysum</i> spp		Medium	Nectar			
Fennel <i>Foeniculum vulgare</i>		Tall	Nectar, seeds, good for hoverflies.			Aromatic
Field scabious <i>Knautia arvensis</i>	✓	Medium	Nectar – good for invertebrates and associated with several Lepidoptera.			
Fleabane <i>Erigeron speciosus</i>		Medium	Nectar, Insects			This is the garden form – there are native fleabanes.
Forget-me-nots <i>Myosotis</i> spp	(✓)	Short-medium	Early nectar and seeds			Self-seeds
Foxglove <i>Digitalis purpurea</i>	✓	Large	Nectar – good for invertebrates.	Calcifuge		Self-seeds readily. Grow from wild collected seed.
French marigold <i>Tagetes patula</i>		Short	Nectar, attracts hoverflies			Aromatic

Globe thistle <i>Echinops ritro</i>		Large	Nectar, seeds for birds			
Goldenrod <i>Solidago virgaurea</i>	✓	Tall	Late nectar, good for invertebrates			Also, the naturalised <i>S. canadensis</i> but can be invasive.
Heather <i>Calluna vulgaris</i>	(✓)	Short	Nectar	Calcifuge		
Hedge mustard <i>Alliaria petiolata</i>	✓	Medium	Food for several pierid butterflies.	Umbricolous		A plant for the hedge or a shady wild corner.
Hedge woundwort <i>Stachys sylvaticum</i>	✓	Medium	Good for invertebrates, nectar.			Shade tolerant
Hemp agrimony <i>Eupatorium cannabinum</i>	✓	Tall	Late nectar, good for invertebrates.			
Hoary plantain <i>Plantago media</i>		Short	Insect-pollinated plantain			Naturalises well in lawns and flowers profusely if left uncut or mown around for a few weeks in late spring.
Honesty <i>Linaria annua</i>	✓	Medium	Early nectar, seeds			Self-seeds readily
Hyssop <i>Hyssopus officinalis</i>		Medium	Nectar	Warm (heliophilous)		Naturalised in places, aromatic.
Grape hyacinth etc <i>Muscari</i> spp		Short	Early nectar			
Greater knapweed <i>Centaurea scabiosa</i>	✓	Tall	Associated with many moths, bugs, beetles, flies and cynipid wasps.	Calcicole		
Ice plant <i>Sedum spectabile</i>		Medium	Early nectar, good for butterflies etc.			
<i>Lathyrus</i> — see <i>Vicia</i>						
Leopard plants <i>Ligularia</i> spp		Tall	Nectar, good for invertebrates.	Moist		
Lobelias <i>Lobelia</i> spp		Short	Early nectar			<i>L. cardinalis</i> is taller and a waterside plant.
Love-lies-bleeding <i>Amaranthus audatus</i>		Tall	Seeds good for birds	Poor soils		
Marigold <i>Calendula officinalis</i>		Medium	Loved by hoverflies			Easy from seed
Marjoram <i>Origanum vulgare</i>		Short/medium	Late nectar	Xeric		Many varieties
Marsh marigold <i>Caltha palustris</i>	✓	Medium	Nectar and shelter at pond edge. Good for Hymenoptera.	Wet		Frogs shelter in foliage. Double-flowered horticultural varieties may be less good for invertebrates.
Meadowsweet <i>Filipendula ulmaria</i>	✓	Tall	Nectar, good for invertebrates.	Moist/wet		Aromatic – smells of germolene
Michaelmas daisy <i>Aster novi-belgii</i>		Medium/tall	Late nectar			
Milfoil <i>Achillea millefolium</i>	(✓)	Medium	Invertebrates (nectar)			Many coloured varieties
Musk mallow <i>Malva moschata</i>	✓	Medium	Nectar, a food plant of painted lady butterfly.			
Nasturtium <i>Tropaeolum majus</i>		Medium	Nectar, good for invertebrates.	Euryoecious		Frost sensitive but easy from seed.
Common nettle <i>Urtica dioica</i>	✓	Medium/tall	Host for nymphalid butterflies.			Worth having a patch in a hidden corner.
Night-scented stock <i>Matthiola longipetala</i>		Short	Good for invertebrates		✓	
Ox-eye daisy <i>Leucanthemum vulgare</i>	✓	Medium	Nectar, good for hoverflies.			
Phlox <i>Phlox paniculata</i>		Medium/tall	Nectar	Does not stand drought.	✓	
Primrose <i>Primula vulgaris</i>	✓	Low	Early nectar			

Purple-loosestrife <i>Lythrum salicaria</i>	✓	Tall	Nectar, good for bumblebees and several Lepidoptera.	Moist/wet		Can be rather invasive
Ragged-robin <i>Lychnis flos-cuculi</i>	✓	Medium	Nectar, good for bumblebees.	Moist/wet		
Red valerian <i>Centranthus ruber</i>		Medium	Late nectar	Saxicole		
Rosebay willowherb <i>Chamerion angustifolium</i>	✓	Tall	Host plant for elephant hawk-moth.			Can be invasive — best in a wild corner where it can be controlled.
Scabious <i>Scabiosa</i> spp	(✓)	Medium	Nectar	Prefer drier ground		
Sea hollies <i>Eryngium</i> spp	(✓)	Medium	Nectar, Seeds			
Selfheal <i>Prunella vulgaris</i>	✓	Low	Several moths and beetles feed on this.			
Small Alison <i>Alyssum alyssoides</i>						
Snowdrop <i>Galanthus nivalis</i>	✓	Short	Early nectar			Mostly naturalised
Soapwort <i>Saponaria officinalis</i>	✓	Medium	Nectar, associated with several hawk-moths.			
Spring crocus <i>Crocus</i> spp		Small	Early nectar			Some naturalised
Squills etc. <i>Scilla</i> spp and related	(✓)	Short	Early nectar	Several woodlanders are ✓		Also, native bluebell but avoid Spanish bluebell which hybridises with our native sp.
Stinking hellebore <i>Helleborus foetidus</i>	✓	Medium	Early nectar, good for bees and wasps.	Calcicole		
Sunflower <i>Helianthus annuus</i>		Tall	Seeds especially for birds			
Sweet bergamot <i>Monarda didyma</i>		Medium/tall	Nectar		✓	
Sweet rocket <i>Hesperis matronalis</i>		Tall	Early nectar, good for Lepidoptera.	Mesic (umbricolous)	✓	Naturalised
Teasel <i>Dipsacus fullonum</i>	✓	Tall	Nectar, seeds for birds			
Thrift <i>Armeria maritima</i>	✓	Short	Late nectar – provides cover in arid places.	Saxicole		
Thymes <i>Thymus</i> spp	(✓)	Low	Late nectar, good for invertebrates.	Xeric		
Tobacco plants <i>Nicotiana</i> spp		Medium/tall	Scent, good for moths		✓	Some scented at night
Vetches <i>Vicia</i> and <i>Lathyrus</i> spp	✓	Medium/tall	Hosts for lycaenid butterflies			Often scrambling
Violet, pansy, viola <i>Viola</i> spp	(✓)	Small	Early nectar		✓	<i>V. odorata</i> is very sweet scented
Wallflowers <i>Erysimum cheiranthoides</i> / <i>E. cheiri</i>		Short	Early nectar.		✓	Will set seed and spread
Water mint <i>Mentha aquatica</i> and other mints	(✓)	Short-medium	Nectar, good for butterflies, etc.	Various		Aromatic
Wild strawberry <i>Fragaria vesca</i>	✓	Short	Larval food plant of grizzled skipper.	Umbricolous		Good ground cover in light shade — tasty fruit too!
Wild mignonette <i>Reseda lutea</i>	✓	Short	Several pierid butterflies and chrysomelid beetles feed on this.	Calcicole		
Winter aconite <i>Eranthis hyemalis</i>		Short	Early nectar			Can be hard to establish
Wood anemone <i>Anemone nemorosa</i>	✓	Low	Early nectar	Woodland		
PLANTS FOR PONDS						

Bogbean <i>Menyanthes trifoliata</i>	✓	Surface spreading	Nectar, good for bees and wasps.			
Brooklime <i>Veronica beccabunga</i>	✓	Short marginal	Nectar, shelter for tadpoles etc.			Newts lay eggs on leaves
Bur-reed <i>Sparganium erectum</i>	✓	Tall	Seed for birds			Grows in deep water – also other bur-reeds
Cardinal flower <i>Lobelia cardinalis</i>		Tall – marshy edge	Nectar			
Comfrets <i>Symphytum</i> spp		See above				
Flowering-rush <i>Butomus umbellatus</i>	✓	Tall marginal	Associated with green leaf- hopper <i>Cicadella viridis</i> .			Not easy to establish
Fringed water-lily <i>Nymphoides peltata</i>	? ✓	Floating	Nectar, dragonflies, shelter for small fish and tadpoles.			Other water-lilies, too – some are very large.
Ladies smock, cuckoo flower <i>Cardamine pratensis</i>		See above				
Lesser spearwort <i>Ranunculus flammula</i>	✓	Short marginal	Nectar, associated with various damselflies.			
Marsh marigold <i>Caltha palustris</i>		See above				
Marsh woundwort <i>Stachys palustris</i>	✓	Medium – marshy edge	Nectar, good for bees and wasps, associated with green tortoise beetle <i>Cassida viridis</i> .			
Meadowsweet <i>Filipendula ulmaria</i>		See above				
Purple-loosestrife <i>Lythrum salicaria</i>		See above				
Ragged-robin <i>Lychnis flos-cuculi</i>		See above				
Rigid hornwort <i>Ceratophyllum demersum</i>	✓	Submerged	Oxygenator, invertebrates, shelter.			Also <i>C. submersum</i>
Spiked water-milfoil <i>Myriophyllum spicatum</i>	✓	Submerged	Oxygenator, invertebrates, shelter.			
Water-cress <i>Rorippa nasturtium-aquaticum</i>	✓	Short-medium	Food plant of green-veined white butterfly.			
Water avens <i>Geum rivale</i>	✓	Marshy edge	Nectar, good for solitary bees			
Water forget-me- not <i>Myosotis scorpioides</i>	✓	Short marginal	Nectar – good for bees			
Water mint <i>Mentha aquatica</i>		See above				
Water plantain <i>Alisma plantago-aquatica</i>	✓	Medium marginal	Associated with Odonata, Diptera and weevil spp.			
Yellow iris <i>Iris pseudacorus</i>	✓	Medium-tall marginal	Cover, nectar, associated with Hymenoptera, Odonata, Coleoptera and Lepidoptera spp.			
BRITISH NATIVE GRASSES, SEDGES & RUSHES						
Bents <i>Agrostis</i> spp	(✓)	Medium	Seeds etc			
Bromes <i>Bromus</i> spp	✓	Various	Seeds etc			
Cat's-tails <i>Phleum</i> spp	✓	Various	Seeds etc			
Crested dog's-tail <i>Cynosurus cristatus</i>	✓	Medium	Food plant of meadow brown and other butterflies.			

False brome <i>Brachypodium sylvaticum</i>	✓	Medium	Food plant of 12 butterflies, many moths etc.			Umbricolous
Fescues <i>Festuca</i> spp	✓	Various	Many associated invertebrates, seeds shelter etc.			
Foxtails <i>Alopecurus</i> spp	(✓)	Medium	Seeds etc			
Hair-grasses <i>Aira</i> spp	✓	Low	<i>A. praecox</i> is food plant of grayling butterfly.			
Heath-grass <i>Danthonia decumbens</i>	✓	Short-medium	Seeds etc			
Meadow-grasses <i>Poa</i> spp	✓	Various	Seeds etc			Avoid annual meadow grass <i>Poa annua</i> — invasive.
Meadow oat-grass <i>Helictotrichon pratense</i>	✓	Medium	Food plant of dusky swallow — a moth of limited UK distribution.	Calcicole		
Quaking grasses <i>Briza</i> spp	✓	Various	Seeds etc	<i>B. media</i> is a calcicole		
Rushes <i>Juncus</i> spp	✓	Various	Several spp are good seed source — good cover near water.	Moist-wet		
Sweet vernal-grass <i>Anthoxanthum odoratum</i>	✓	Medium	Food plant of various flies, micro-moths, bugs.		✓	
Reed canary-grass <i>Phalaris arundinacea</i>	✓	Tall	Many bugs, moths, flies and at least two beetles feed on this.	Water-logged		Wet places — needs space
Sedges <i>Carex</i> spp	✓	Various	Many spp are good seed sources			
Squirreltail fescue <i>Vulpia bromoides</i>	✓	Medium	Seeds etc			
Sweet-grasses <i>Glyceria</i> spp	✓	Various	Newts wrap eggs in leaves of <i>G. fluitans</i> .	Water-logged		Wet places
Tor-grass <i>Brachypodium pinnatum</i>	✓	Medium	Marbled white and wall butterfly food plant.	Calcicole		
Wavy hair-grass <i>Deschampsia flexuosa</i>	✓	Medium-tall	Associated with satyrid butterflies and noctuid moths plus many bugs etc.	Acidophile		
Wood melick <i>Melica uniflora</i>	✓	Medium	Seeds etc.			Umbricolous
Wood millet <i>Milium effusum</i>	✓	Medium	Associated with satyrid butterflies and several micro- moths.			Umbricolous
Wood small-reed <i>Calamagrostis epigejos</i>	✓	Tall	Food plant for various butterflies, moths, sawflies, flies and bugs.	Moist		Umbricolous— good for damp places.
Yorkshire-fog <i>Holcus lanatus</i>	✓	Medium	Food plant of several butterflies.			Ubiquitous and can be invasive.
Yellow oat-grass <i>Trisetum flavescens</i>	✓	Medium	Seeds etc			