

Preliminary Ecological Appraisal

Floran Farm
Hophurst Hill
Crawley Down
RH10 4LP

Date: November 2024

Revision: Original

1 Summary

Site	Floran Farm, Hophurst Hill, Crawley Down, RH10 4LP
Central OS Grid Reference	TQ 35956 38773
Report Commissioned by	WS Planning & Architecture
Report Purpose	To inform a full Planning Application.
Date of Survey	12 th November 2024
Author	Caitlin Laver BSc (Hons) MSc, Ecologist
Reviewed & Approved by	Graeme Down BSc (Hons) PhD MCIEEM, Associate Director (Ecology)
Version	Original, 19th November 2024.

Considerations	Description	Comments & Recommendations
Ecological Importance of the Site	The site comprises artificial unvegetated, unsealed surfaces, buildings and other hedgerows.	The artificial unvegetated, unsealed surfaces and buildings are of negligible importance due to the frequent disturbance and extensive use of artificial lighting.
Avoidance and Mitigation	Priority habitats – ancient woodland	Protect these boundary features.
	Great crested newts and reptiles	Store materials off the ground and do not leave temporary standing water.
	Birds	Clear any open storage containers outside the nesting bird season, or after a nesting bird survey by a competent person if clearance is scheduled between March and August (inclusive).
	Badgers	Fence off materials overnight to prevent badgers accessing any fresh soil and cover trenches or provide planked escape routes to allow any animals that fall in to escape.
	Bats – foraging and commuting and hazel dormice	Implement a sensitive lighting strategy that avoids lighting of boundary and newly planted trees and hedgerows and newly installed bat boxes.
	Hedgehog	Cover trenches or provide planked escape routes to allow any animals that fall in to escape.
Enhancements	To increase the ecological value of the site.	Install wildlife boxes for birds, bats, a house for insects, a hedgehog house and two log piles.
Conclusion	Avoidance and mitigation measures for ecological receptors are possible to secure by condition. The proposal offers opportunities for biodiversity enhancements within the site.	

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Appendix 1 Legislation and Planning Policy

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2 Introduction

2.1 Background

David Archer Associates was commissioned by WS Planning & Architecture to undertake a Preliminary Ecological Appraisal (PEA) at Floran Farm, Hophurst Hill, Crawley Down, RH10 4LP, herein referred to as 'the site'. This report will support a planning application for the conversion of an existing building for residential use with open space and associated infrastructure and the conversion of the existing hard standing to grassland.

2.2 Site Location and Description

The site is located c. 700m to the north-east of Crawley Down in Sussex at central Ordnance Survey Grid Reference TQ 35956 38773. The site totals c. 0.58ha, comprising artificial unvegetated, unsealed surfaces and buildings.

The site is situated within a rural location and surrounded by ancient woodland to the north and west, and open grassland to the south and to the east. The wider area comprises rural and suburban settlements, agricultural and pastoral land, hedgerows, watercourses and deciduous woodland.

2.3 Scope of Survey

The PEA comprised a single visit to the application site. The red line boundary used for the purposes of this assessment is shown in the existing site plan shown in **Figure 2.1**. The study area was also extended to consider the following ecological features according to certain distances around the site boundary:

- 5km for statutory designated sites for nature conservation that form part of the National Site Network (NSN) and Ramsar sites;
- 2km for statutory sites of national and local importance designated for nature conservation;
- 2km for granted European Protected Species Mitigation (EPSM) licences;
- 1km for non-statutory sites designated for nature conservation;
- 1km for protected and notable species records;
- 500m for Priority Habitats;
- 250m for water-bodies (in relation to great crested newts); and
- 30m for badger setts.

2.4 Development Proposal

The proposed development includes the conversion of the existing building into residential use with associated open space and infrastructure as well as the demolition of small outbuildings and storage containers. A detached garage will also be constructed. The existing hard standing will also be converted into grassland (**Figure 2.2**).

2.5 Objective

The objective of this PEA is to identify any further ecological surveys and / or mitigation required, and potential enhancement opportunities in accordance with planning policy, and European and UK wildlife legislation (**Appendix 1**).

Figure 2.1: Existing site plan, showing red line boundary used for this assessment (WS Planning & Architecture, 2024; Drawing Number J004869-DD-01).

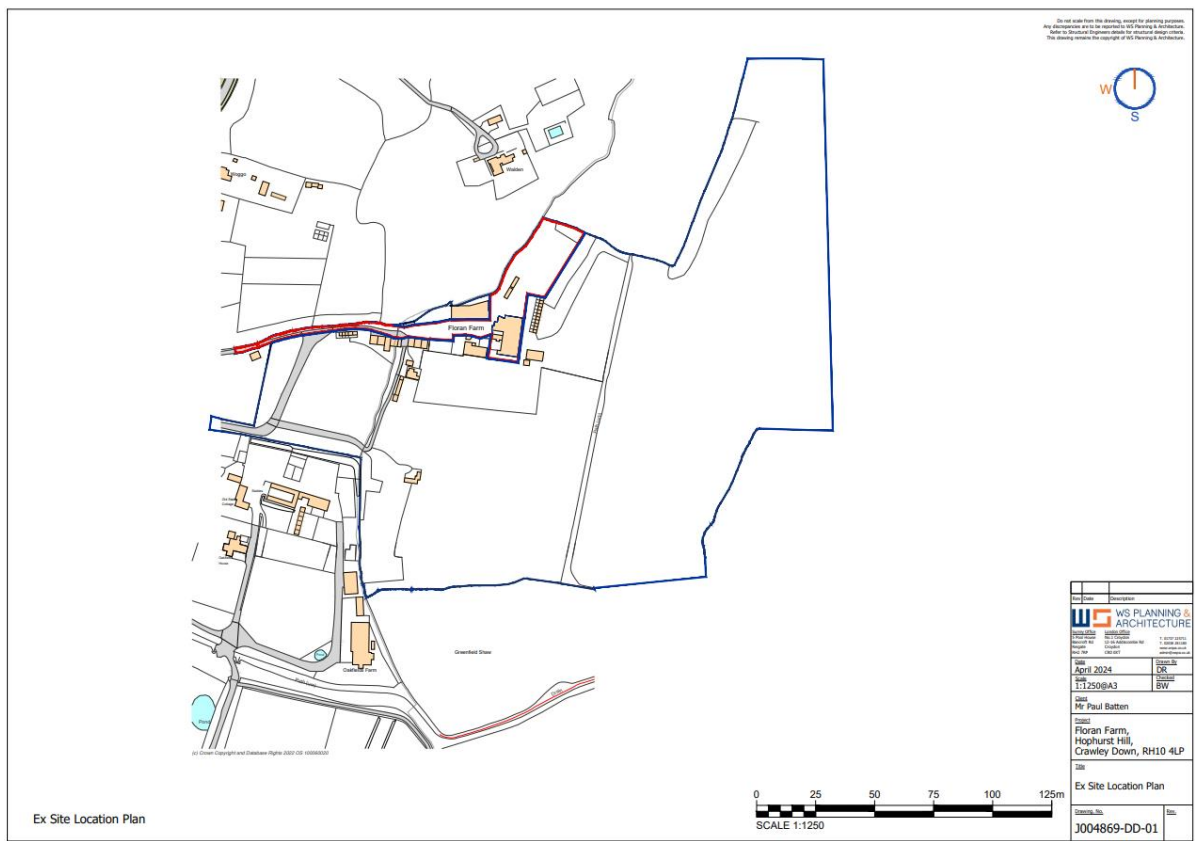
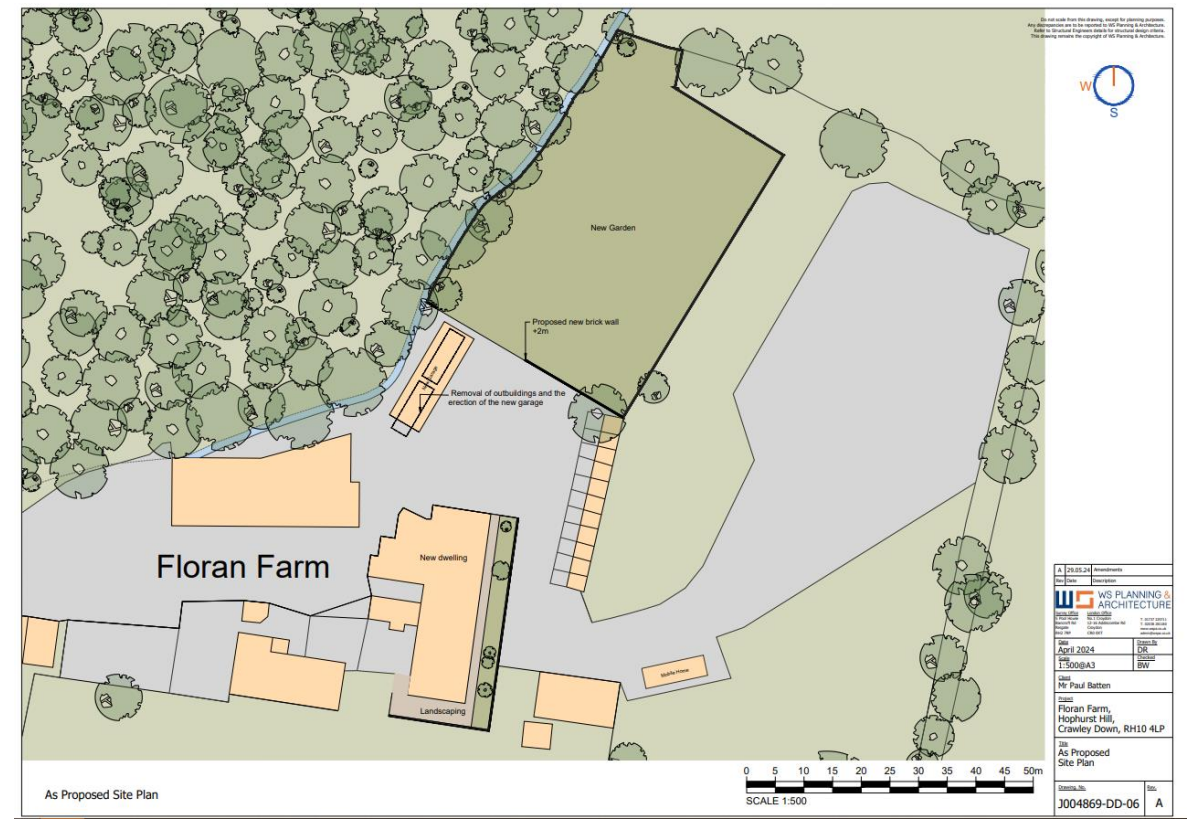


Figure 2.2: Proposed development plan (WS Planning & Architecture, 2024; Drawing Number J004869-DD-06) – note the garden wall is no longer proposed



3 Methodology

3.1 Surveyor & Reviewer

The site was surveyed by Ecologist Caitlin Laver, who is licensed to survey for great crested newts, hazel dormice and bats (level 1) (licence numbers: 2023-11402-CL08-GCN, 2023-11640-CL10A-DOR and 2024-12331-CL17-BAT, respectively). Caitlin is a FISC level-4 botanist (last assessed June 2023).

This report was reviewed by Associate Director Graeme Down, who is licensed to survey for great crested newts and bats (licence numbers: 2015-19299-CLS-CLS and 2022-10910-CL18-BAT). Graeme has been a practising ecologist since 2007, is highly experienced in Habitats Regulations Assessment (HRA) and ornithological surveys and is a FISC level-4 botanist. Graeme has also held development licences for badgers and is a Full member of the Chartered Institute of Ecology and Environmental Management (CIEEM) and therefore subject to the CIEEM Professional Code of Conduct.

3.2 Desk Study

Natural England's Multi-Agency Geographic Information for the Countryside (MAGIC) database was accessed on 11th November 2024 for information on statutory sites designated for nature conservation within a 2km radius of the site. Consideration for NSN sites was extended to a 5km radius where the potential risk of impact to interest features of such sites may extend over a wider area. Such sites include Special Areas of Conservation (SACs) and Special Protection Areas (SPAs). A 5km search radius was also applied to internationally designated Ramsar sites, as well as sites currently under public consultation for future designation as SACs, SPAs and Ramsar sites.

The MAGIC Impact Risk Zones (IRZs) were used to assess whether the proposed development may impact on any Sites of Special Scientific Interest (SSSI), and thus whether consultation with Natural England is needed to discuss how impacts might be avoided or mitigated.

The Sussex Biodiversity Records Centre (SxBRC) was also consulted on 11th November 2024 for the following information for a 1km radius around the application site:

- Non-statutory nature conservation designations, such as Local Wildlife Sites (LWS);
- Legally protected species, such as great crested newts, reptiles, birds and bats; and
- Notable / priority species, such as those listed under Section 41 of the NERC Act, 2006.

3.3 Habitat Survey

The survey involved a site visit on 12th November 2024 to record and map habitat types and ecological features within the site. The survey was undertaken in accordance with *Guidelines for Preliminary Ecological Appraisal* (CIEEM, Guidelines for Preliminary Ecological Appraisal, 2017). The habitats present on-site have been characterised under the UK Habitat Classification Habitat Definitions V2.0 (UK Hab Ltd, 2023). A minimum habitat parcel size of 25m² was employed, and wherever possible, habitats were characterised to Level 5, the most detailed level available. Habitats were plotted on a Habitat Plan (**Appendix 2**). Features of interest were identified as target notes on the Habitat Plan (**Appendix 2**).

Note that the UK Habitat Classification forms the basis for the DEFRA Biodiversity Metric (February 2024) and that the Metric requires assessment of the 'condition' of the habitat. This is based on criteria as defined within the Metric guidance. The condition assessment to inform the Metric is not directly

comparable to evaluation of habitat importance in accordance with the *Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine* (CIEEM, Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater and Coastal, 2018).

Hedgerows on site were also evaluated for their importance with reference to the *Hedgerows Regulations 1997*.

Aerial photographs, maps and field observations were used to identify habitats in the wider landscape which could be impacted by development of the site.

Weather conditions during the survey were 10°C, a gentle breeze (Beaufort 3), 10% cloud cover and dry.

3.4 Protected and Notable Species Assessment

The site was inspected for evidence of and assessed for potential to support protected and notable species. This included species listed under the *Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019*, the *Wildlife and Countryside Act 1981 (as amended) (WCA)*, and those given extra protection under the *Natural Environment and Rural Communities (NERC) Act 2006*, *Countryside and Rights of Way (CROW) Act 2000*, and the *Protection of Badgers Act 1992*.

MAGIC was also accessed on 11th November 2024 to identify any European Protected Species Mitigation (EPSM) licences granted by Natural England within a 2km radius of the site.

The following protected / notable species were considered within the assessment.

3.4.1 Great Crested Newts and Common Toads

The site was assessed for suitability to support the legally protected great crested newt *Triturus cristatus* and the notable common toad *Bufo bufo*. The assessment was undertaken in accordance with the *Herpetofauna Workers' Manual* (Gent & Gibson, 2003) and the *Great Crested Newt Conservation Handbook* (Langton, Beckett, & Foster, 2001).

Based on Natural England (2015) guidance, surveys of land greater than 250m from the nearest water-body are normally appropriate in relation to great crested newts when all of the following conditions are met:

- a) Maps, aerial photos, walkover surveys or other data indicate that the water-bodies have potential to support a large great crested newt population;
- b) The development footprint contains particularly favourable habitat, especially if it constitutes the majority available locally;
- c) The development would have a substantial negative effect on that habitat; and
- d) There is an absence of dispersal barriers.

The proposed development does not meet criterion b above, and therefore consideration was given to water-bodies on and within 250m of the site using OS maps and aerial images.

3.4.2 Reptiles

The site was assessed for suitability to support reptiles with reference to 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).

3.4.3 Barn Owl

Buildings within the site were externally and internally inspected from the ground for signs of barn owl *Tyto alba* following *Survey Techniques Leaflet No. 8* (The Barn Owl Trust, 2010). Barn owl pellets, white excreta ('whitewash'), feathers and nest debris were searched for. Any potential access points and darkened cavities of sufficient size to accommodate owls were noted. Attention was given to walls beneath any openings, and overhead structures such as beams or ledges.

3.4.4 Badgers

The site and a 30m zone around the site (where accessible), were surveyed for badger *Meles meles* evidence such as setts, latrines, pathways, footprints, snuffle holes and badger hairs. Any setts recorded were classified according to published criteria (Harris, Cresswell, & Jeffries, 1989).

3.4.5 Bats

Potential for the site to support roosting, foraging and commuting bats was assessed in line with the Bat Conservation Trust (BCT) *Bat Surveys for Professional Ecologists Good Practice Guidelines* (Collins, 2023).

3.4.5.1 Roosting

The building on site was assessed for suitability to support roosting bats per the scales in **Table 3.1**. Equipment used to investigate the building included a high-power torch. The building was described and surveyed for bats and their evidence, which includes droppings, staining, scratch marks and feeding remains.

Table 3.1: Classifying the bat roosting suitability of buildings (Collins, 2023).

No roosting suitability	No features likely to be used by any roosting bats at any time of year.
Negligible roosting suitability	Buildings with few, if any, features suitable for roosting, however a small amount of uncertainty remains as bats can use small and apparently unsuitable features on occasion.
Low roosting suitability	One or more potential roost sites that could be used by individual bats opportunistically at any time of year. The features 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.
Moderate roosting suitability	One or more potential roost sites that could be used by bats due to their space, shelter, protection, appropriate conditions and/or suitable surrounding habitat but are unlikely to support a roost of high conservation status (e.g. maternity or hibernation).
High roosting suitability	One or more potential roost sites that could be used by larger numbers of bats on a more regular basis/ longer periods of time, due to their space, shelter, protection, appropriate conditions and/or suitable surrounding habitat. These structures could support to support roosts of high conservation status (e.g. maternity or hibernation).
Confirmed roost	Evidence of bat occupation found.

3.4.5.2 Foraging and Commuting

The site was assessed for its suitability to support foraging and commuting bats according to **Table 3.2**.

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

None	No habitat features on site likely to be used by foraging or commuting bats.
Negligible	No obvious habitat features on site likely to be used by commuting or foraging bats, but uncertainty remains to account for non-standard bat behaviour.
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 foraging bats such as broadleaved woodland, tree-lined watercourses and grazed parkland. Site is close to and connected to known roosts.

3.4.6 Hazel Dormouse

The site was assessed for potential to support the hazel dormouse *Muscardinus avellanarius*, in accordance with the *Dormouse Conservation Handbook* (Bright, Morris, & Mitchell-Jones, 2006). Dormice typically use connected woodland, hedgerows and scrub that contain suitable food plants. Aerial images were used to assess the connectivity of any suitable habitat on the site to woodland and hedgerows within the wider area.

3.4.7 Other Species

The site was assessed for suitability to support other protected and notable fauna species / assemblages including birds, invertebrates and mammals.

3.4.8 Invasive Species

The site was searched for invasive plants such as giant hogweed *Heracleum mantegazzianum*, Himalayan balsam *Impatiens glandulifera*, Japanese knotweed *Fallopia japonica* and rhododendron *Rhododendron ponticum*.

3.5 Evaluation

Designated sites, habitats and species (where presence has been identified) have been evaluated in accordance with the *Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine* (CIEEM, Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater and Coastal, 2018).

These guidelines aim to give consistency in evaluating the importance of the ecological features within and around a site, which help inform any effects or impacts a scheme will have upon them.

A value of the ecological features (designated sites, habitats or species) has been assigned according to their level of importance using the following terms:

- International and European
- National
- Regional
- Local
- Site
- Negligible

3.6 Limitations and Assumptions

Access was available to the entire site and the baseline conditions reported represent those identified at the time of the survey. The survey date falls outside the optimal season for botanical work. However, the habitat descriptions and evaluations are considered to be accurate due to the common and widespread habitats recorded and the vegetation being clearly visible at the time of survey. Although a reasonable assessment of the site can be made during a single survey, seasonal variations are not observed.

This PEA provides an overview of the likelihood of protected / notable species occurring on the site (negligible, low, moderate, or high). Absence of a species cannot be presumed where no evidence was found. Further surveys have been recommended where there is reasonable likelihood of a protected species being present and impacted by the development proposal. This is based on the suitability of the habitat and any evidence observed.

This PEA does not constitute a full botanical survey or a Phase 2 pre-construction survey for Japanese knotweed.

The results of this assessment will remain valid for 18 months from the date of the survey i.e. until May 2026, after which the assessment should be updated, if a planning application has not been submitted within this timeframe.

4 Results and Evaluation

The following section presents the results, evaluation and discussion of the designated sites, habitats and protected / notable species, which may be impacted by the proposed development.

4.1 Designated Sites

4.1.1 Statutory Sites

Statutory sites designated for nature conservation within the vicinity of the site are provided in **Tables 4.1**. No Ramsar sites, SPAs or SACs are located within 5km of the site. SSSIs are of **national importance**. No Local Nature Reserves (LNR) are located within 2km of the site.

There are no habitats or species within the site that serve as qualifying features of the nearby statutory sites. The application site is not ecologically linked to these sites due to the intervening land being extensive pastoral land (OS, 2024). The development is also highly unlikely to indirectly impact any designated sites in the local area due to its small-scale. No significant impacts on statutory sites are expected.

No further action is recommended.

Table 4.1: Statutory designated sites of national and local importance within 2km of the application site.

Site Name	Distance & Direction from Site	Area (ha)	Reasons for Designation
Hedgecourt SSSI	c. 1.3km N	33.3	Hedgecourt is the most important wetland site remaining in south-east Surrey. Situated in the upper Eden Brook Valley on alluvial soils overlying Tunbridge Wells sandstones, the site incorporates a range of habitats including woodland, grassland and fen-marginated open water. Hedgecourt lake itself is an ancient mill pond resulting from the damming of the river. These habitats support a wide variety of animal life including several locally distributed beetles <i>Coleoptera</i> and a large breeding-bird fauna.

4.1.2 Non-Statutory Sites and Priority Habitats

Non-statutory sites designated for nature conservation that are located within 1km of the application site are provided in **Table 4.2**. LWSs are of **local importance**.

The development will be small enough and located far enough from any of these sites for there to be any direct or indirect impacts on their habitats.

Further, there does not appear to be any direct public path, hydrological link or other habitat connectivity between these sites and the application site (OS, 2024). No significant impacts on non-statutory sites are expected.

No further action is recommended in relation to non-statutory designated sites.

Table 4.2: Non-statutory sites within 1km of the application site.

Site Name	Distance & Direction from Site	Area (ha)	Reasons for Designation
Worth Way LWS	c. 0.5km S	34	Although dominated by lowland mixed deciduous woodland, the LWS also includes acid grassland, scrub, bracken, swamp, ponds and lakes, providing additional habitat diversity that can support a greater range of species than woodland alone.
Lobbs Wood & Furnace Pond LWS	c. 0.6km W	30.9	Lobbs Wood forms part of an ancient woodland complex situated north of Crawley Down. The gill, or steeply incised stream valley is a very valuable feature. Furnace Pond, presumably a hammer pond created for the Wealden iron industry, is a large area of open water surrounded by ancient woodland. Its considerable ornithological importance is well documented.

Priority Habitats (Section 41, NERC Act 2006) are present within 500m. These include ancient and deciduous woodland. The nearest of these is ancient and deciduous woodland, located along the north-western site boundary.

The artificial unvegetated, unsealed surface already extends to the boundary of the ancient woodland, so it is likely that root impact zones have already been impacted. Works to reinstate grassland across the hard-standing are unlikely to have any further negative impacts on the surrounding woodland. However, precautionary action is outlined in **Section 5**.

4.2 Habitats

The habitats below were recorded within the site during the survey. No protected, Habitats of Principal Importance (HPIE) or locally important floral species or habitats were recorded within the site during the survey. Habitat types are described below and shown on the UK Habitat Map (**Appendix 2**).

Table 4.2: Habitats recorded on-site (UK Habitats Classification).

Primary Habitat (code)	Secondary Habitat within Primary Habitat (code)
Artificial unvegetated, unsealed surface (u1c)	N/A
Buildings (u1b5)	N/A

4.2.1 Buildings

A description of the buildings within the site is provided in relation to their bat roosting suitability in **Section 4.3.6**.

4.2.2 Artificial unvegetated, unsealed surface

Artificial unvegetated, unsealed surface is located in the north of the site (**Photo 4.2; Photo 4.3**). The habitat conforms to UK Habitat Classification u1c (artificial unvegetated, unsealed surface). Storage containers cover a large percentage of the unsealed surface with some ruderals present with species including common nettle *Urtica dioica*, cleavers *Galium aparine*, creeping buttercup *Ranunculus repens*, herb-Robert *Geranium robertianum*, creeping thistle *Cirsium arvense*, dove's-foot cranesbill *Geranium molle*, common mouse-ear *Cerastium fontanum*, broad-leaved dock *Rumex obtusifolius*, common nipplewort *Lapsana communis* and water figwort *Scrophularia umbrosa* with buddleia *Buddleja davidii*.

The artificial unvegetated, unsealed surface lacks ecological value as a habitat feature and is therefore of **negligible** importance.

No further action is required.

Photo 4.2: Artificial unvegetated, unsealed surface, facing north.



Photo 4.3: Artificial unvegetated, unsealed surface, facing north.



4.3 Protected and Notable Species

Records of protected / notable species for the last ten years have been considered within the assessment below. None of the records pertain to the site.

4.3.1 Invertebrates

The SxBRC returned no records of Roman snail *Helix pomatia* or stag beetles *Lucanus cervus*. Numerous records of Section 41 (NERC Act, 2006) moths and butterflies were returned. Most of these records originate from the Lobbs Wood & Furnace Pond LWS, which is 0.6km to the west of the site.

Habitats to be significantly impacted by the proposals (artificial unvegetated, unsealed surfaces) are unlikely to support rare or notable species. Limited nectaring opportunities are available for

butterflies, and no deadwood was noted on-site for saproxylic invertebrates. The site therefore holds **negligible** potential for rare / notable invertebrates.

No further action is required.

4.3.2 Great Crested Newts and Common Toads

The SxBRC returned 14 records of great crested newt *Triturus cristatus* but no records of common toad *Bufo bufo*. The nearest record for great crested newt is located c. 0.7km south-west of the site with the most recent record being located c. 0.9km south-west.

One pond is located within 250m of the site (OS, 2024). Refer to **Figure 4.1** and **Table 4.4** below.

Table 4.3: Granted great crested newt mitigation licence applications within 2km of the site.

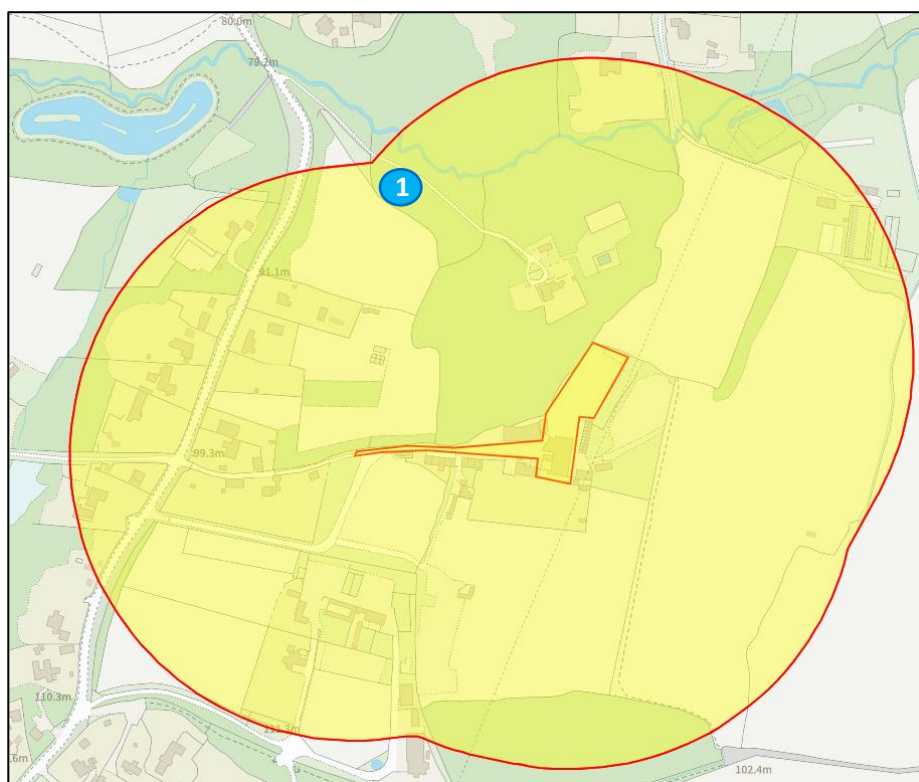
Case Reference	Licensed Impact	Distance & Direction	Licence Start & End Dates
2020-44432-EPS-MIT	Damage and destruction of a resting place	1.5km SW	21/08/2020 – 31/12/2030
2017-30804-EPS-MIT	Destruction of a resting place	1.7km SW	29/09/2017 – 31/12/2029

The site comprises artificial unvegetated, unsealed surfaces that represent poor quality terrestrial habitat for foraging, sheltering, commuting, and hibernating great crested newts. It is understood that these habitats are to be removed. There are no suitable water-bodies located south or east of the site within a range over which great crested newts are likely to commute, and suitable habitat exists closer to the water-body located north-west of the site. However, it is possible that as the woodland adjacent to the site provides suitable habitat for foraging, sheltering, commuting, and hibernating great crested newts, it is not possible to rule out occasional passes of great crested newts across the site.

The site therefore holds **low** potential for great crested newts and **impacts to other amphibians are not expected**.

Precautionary action for great crested newts has been recommended in **Section 5**.

Figure 4.1: Water-bodies (blue circles) within 250m of the site (red-line).



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Table 4.4: Location and description of waterbodies on and within 250m of application site.

Waterbody Number	Distance & Direction from Site	Connectivity to the Site	Further Surveys Required?
1	c. 215m NW	Connected via ancient woodland and a residential dwelling.	No

4.3.3 Reptiles

The SxBRC returned two records of grass snake *Natrix helvetica*, the nearest of which is located c. 0.7km south-west of the site with the most recent record being located c. 0.8km south.

The margins of the semi-improved grassland and the hedgerow/woodland interfaces provide the habitat structure that reptiles typically require. The site therefore holds **low** potential for reptiles.

Precautionary action for reptiles has been recommended in **Section 5**.

4.3.4 Birds

The SxBRC returned no records of bird species listed as Annex I (Birds Directive) and / or Schedule 1 (WCA) that would be likely to breed on-site. The records included species of Red- and Amber-listed Birds of Conservation Concern (BoCC) (Stanbury *et al.*, 2021) that could breed on-site or in habitat immediately adjacent as follows: dunnoek *Prunella modularis*, whitethroat *Curruca communis* and song thrush *Turdus philomelos*.

The following birds were recorded during the survey: woodpigeon *Columba palumbus*, robin *Erithacus rubecula* and jackdaw *Corvus monedula*.

Bird interest (nesting / foraging) is likely to be confined to the hedgerow and off-site woodland with some possible use of the storage containers that are left open. The site therefore holds **moderate** potential for widespread species of nesting bird.

The site overall is, however, considered to hold **negligible** potential for bird species listed as Annex I (Birds Directive) and / or Schedule 1 (WCA). The small nature of the site, lack of open areas of fields or water, and heavy levels of disturbance mean that the site has **negligible** potential for notable wintering bird species and assemblages.

Precautionary action for nesting birds is recommended in **Section 5**.

4.3.4.1 Barn Owl

No evidence of roosting / nesting barn owls *Tyto alba* was noted within the building or storage containers. There is also no suitable habitat for foraging barn owls. The site therefore holds **negligible** potential for barn owl.

No further action for barn owl is required.

4.3.5 Badgers

The SxBRC returned no records of badgers *Meles meles*.

No setts were recorded on or within 30m of the site. No mammal paths were recorded within the site with no suitable habitat currently present on-site. Earth banks suitable for digging were noted on the northern, eastern and western site boundaries and suitable habitat for badgers is located within the ancient woodland to the west of the site, therefore, it cannot be ruled out that badgers may occasionally pass through the site.

Precautionary action for badgers has therefore been recommended in **Section 5**.

4.3.6 Bats

The SxBRC returned records for four bat species: brown long-eared *Plecotus auritus*, common pipistrelle *Pipistrellus pipistrellus*, soprano pipistrelle *Pipistrellus pygmaeus* and noctule *Nyctalus noctula*. The most recent records are for all four species from 2017 with the nearest record being from a brown long-eared bat located c. 0.6km to the south-west of the site.

The table below provides a list of bat Mitigation Licences granted by Natural England within 2km of the site (MAGIC, 2024).

Table 4.5: Granted bat mitigation licence applications within 2km of the site.

Case Reference	Bat Species	Type of Roost	Distance & Direction	Licence Start & End Dates
2014-965-EPS-MIT	Brown long-eared bat <i>Plecotus auritus</i> and barbastelle <i>Barbastella barbastellus</i>	Non-breeding	c. 0.3km N	20/03/2014 – 30/09/2014
2014-3084-EPS-MIT	Brown long-eared bat and common pipistrelle <i>Pipistrellus pipistrellus</i>	Non-breeding	c. 1.0km SW	16/09/2014 – 01/10/2016
2017-31276-EPS-MIT	Brown long-eared bat	Breeding	c. 1.6km S	25/10/2017 – 31/10/2017
EPSM2012-4307	Brown long-eared bat and common pipistrelle	Breeding	c. 1.9km SW	24/04/2012 – 01/04/2024

4.3.7 Roosting (Buildings)

The relevant buildings on site have been described below. Refer to **Appendix 2** for the building locations.

Building B1

Building B1 is a single-storey building that is currently in use as a residential dwelling in the southern half whilst being a storage unit in the more northern section (**Photo 4.4**). The building comprises a complex structure with a corrugated metal pitched roof and a combination of brick, breeze-block and timber clad walls (**Photo 4.5**; **Photo 4.6**). The building is well sealed with no gaps noted in the timber cladding or under the corrugated metal sheeting. Internally the building subject to high levels of human disturbance. Timber beams are present within the northern section, however, no possible access for bats was noted (**Photo 4.7**).

No evidence of bats was noted on or within the building. Building B1 is of **negligible** suitability for roosting bats during the active season and **negligible** suitability during the hibernation season.

Photo 4.4: Building B1, facing south-east.



Photo 4.5: Building B1, facing west.



Photo 4.6: Building B1, facing north.



Photo 4.7: Building B1, internal area of the northern section of the building.



Overall Suitability for Roosting Bats in Buildings

No access points or suitable features were noted on or within Building B1. The roost assessment concluded that Building B1 holds **negligible** suitability for roosting bats during the active season and **negligible** suitability during the hibernation season.

No further action for roosting bats is required.

4.3.7.1 Foraging and Commuting

The hedgerow on the eastern site boundary provides a suitable habitat feature for foraging and commuting bats with suitable habitat being located within the immediate vicinity of the site in the form of ancient woodland. The site itself comprises largely unsuitable habitats and is therefore of **low** suitability for foraging and commuting bats.

Precautionary action for foraging and commuting bats has been recommended in **Section 5**.

4.3.8 Hazel Dormice

The SxBRC did not return any records for dormice *Muscardinus avellanarius*. The site is, however, located within the dormouse natural range and a line of scrub is present on the eastern site boundary, which is dominated by bramble, a suitable food source.

According to aerial images, the site is also connected to a woodland and hedgerow network in the surrounding area. The site itself comprises largely unsuitable habitats and the site is therefore considered to hold only **low** potential for dormice.

The suitable habitat in close proximity to the site will not be impacted, however, precautionary action for hazel dormice has been recommended in **Section 5**.

4.3.9 Hedgehogs

The SxBRC did not return any records of hedgehog *Erinaceus europaeus*.

The hedgerow on the eastern site boundary provides a suitable habitat for foraging and sheltering hedgehogs with further suitable habitat present in the surrounding landscape.

The hedgerow will not be impacted during the works; however it is not possible to rule out hedgehogs occasionally passing through the site. Therefore, precautionary action for hedgehogs is recommended in **Section 5**.

5 Avoidance, Mitigation and Enhancement Recommendations

This section discusses recommendations for avoidance, mitigation, and possible enhancements in line with relevant wildlife legislation and planning policy (see **Appendix 1**).

5.1 Avoidance and Mitigation

5.1.1 Priority Habitat – Ancient Woodland

A 15-metre buffer zone will ensure that no works that will impact the Root Protection Zone around the ancient woodland.

Use the following measures to minimise impacts to the off-site ancient woodland:

- Protect the woodland during construction with Heras fencing in line with *Trees in Relation to Design, Demolition and Construction – Recommendations BS5837:2012* (British Standards Institution, 2012).

5.1.2 Great Crested Newts and Reptiles

Store materials off the ground on pallets to prevent amphibians or reptiles from taking refuge under them. No temporary standing water should be left on the site, which could be used by amphibians.

5.1.3 Birds

Clear any storage containers that have been left open between September and February (inclusive) to avoid the main breeding bird season. Alternatively, an ecologist should check potential nesting habitat immediately before clearance that is scheduled during the breeding season (March to August inclusive). Any active nests identified must be retained *in situ* with a suitable buffer (to be determined by an ecologist) until the chicks have fledged and the nest is no longer active.

5.1.4 Badgers: Foraging and Commuting

Whilst no badger activity was noted on or within 30m of the site, suitable habitat is present in the wider area and therefore, it is possible that badgers may commute across the site.

The following measures are therefore recommended:

- Temporarily fence any piles of material that are to be in place for a significant period of time, to prevent badgers from accessing the fresh soil;
- Cover excavations at night, or leave an earth / wooden ramp to allow any animals that fall in to escape; and check work areas daily to ensure no animals are trapped; and
- Cap any pipes over-night on site to avoid animals becoming trapped.

5.1.5 Bats - Foraging and Commuting

The following measures should be implemented within the development to reduce impacts on foraging and commuting bats caused by artificial lighting (BCT & ILP, 2023):

- Direct any task lighting used during construction away from boundary trees (retained and new) and any newly installed bat boxes;
- Set any necessary security lighting on short timers with a sensitivity to large moving objects only;

-
- Consider installing internal light fittings in a recess where installed in proximity to windows facing the boundary vegetation in order to reduce glare and light spill;
 - Limit lighting times to provide dark periods;
 - If appropriate to the final design, consider screening as a means of reducing light spill to boundary vegetation. This could take the form of soft landscaping, fences, walls or bunds. Fencing could also be overplanted with hedgerow or climbing species to add further ecological value to the site and soften its appearance;
 - LED light sources should be used wherever possible due to their sharp cut-off, lower intensity, good colour rendition and dimming capabilities. A warm spectrum light (ideally <2700 Kelvin) should be used to reduce the blue light component. Lights should feature peak wavelengths higher than 550nm to avoid the component of light most disturbing to bats (Stone, 2012). Luminaires should be mounted on the horizontal, i.e. with no upward tilt. Avoid the use of UV light and do not use metal halide, fluorescent light sources; and
 - As a last resort, use hoods or cowls to avoid light being directed at the sky or towards the boundary vegetation.

5.1.6 Hazel Dormice

The measures included within **Sections 5.1.1 and 5.1.5** will ensure no impacts on hazel dormice.

5.1.7 Hedgehog

Cover any trenches, holes or deep pits overnight, or use secured planks to allow any animals that fall in to escape during construction. A member of staff should check the site at the end of each working day to ensure that these provisions to protect nocturnal species have been made.

5.2 Enhancements

The recommendations below are designed to enhance the value of the site for wildlife, as encouraged through the National Planning Policy Framework (2023), and to help achieve qualitative species and habitat focused enhancement in the context of both national and local biodiversity priorities and targets:

- 1) Install two Schwegler 1B General Bird Boxes and / or Sparrow Terraces (or suitable long-lasting alternative) onto the new building at least 3m above the ground, avoiding direct sunlight (not directly south-facing) and prevailing wind.
- 2) Install two Greenwood Half and Half Bat Box Bat Boxes (or suitable long-lasting, self-cleaning alternative) onto the new building. Install the bat boxes at least 5m above the ground and face in a southerly or easterly direction, so that they receive sun for part of the day. Place boxes clear of any obstructions to allow access for bats (e.g. over-hanging branches).
- 3) Provide one insect house in a sheltered, warm location e.g. within any new flower beds in the north of the site to provide over-wintering sites for beneficial insects such as lady birds and lacewings, which typically prey on pest species.
- 4) Provide a hedgehog house within a sheltered location e.g at the base of the hedgerow in the north area of the site.
- 5) Create two log piles from native hardwood species to provide reptile and amphibian refuge and hibernation opportunities. Locate these on the northern site boundary, in an area that

will be minimally disturbed on completion. Dead wood habitats provide important egg laying and larval habitat for invertebrates and refugia / foraging for small mammals and amphibians.

6 Conclusion

The development can proceed with minimal impact to habitats and protected / notable species if the avoidance and mitigation measures outlined within **Sections 5.1**.

There is also the opportunity to enhance the development for local wildlife in the long-term by implementing the enhancement measures detailed in **Section 5.2**.

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Appendix 1 Legislation & Planning Policy

Legislation

Conservation of Habitat and Species (Amendment) (EU Exit) Regulations (CHSR) 2019

The *CHSR 2019* transpose Council Directive 92/43/EEC on the Conservation of Natural Habitats and Wild Flora and Fauna (Habitats Directive) into English law, making it an offence to deliberately capture, kill or disturb wild animals listed under Schedule 2 of the Regulations. It is also an offence to damage or destroy a breeding site or resting place of such an animal (even if the animal is not present at the time).

The purpose of the 2019 amendments applied to the legislation were to ensure the continued functionality of the Regulations once the UK has left the European Union, with no policy changes included.

Wildlife & Countryside Act (WCA)

The *WCA 1981*, as amended by the *Countryside and Rights of Way Act (CROW) 2000* and the *Natural Environment and Rural Communities Act (NERC) 2006*, consolidates and amends existing national legislation to implement the Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention) and Council Directive 79/409/EEC on the Conservation of Wild Birds (Birds Directive), making it an offence to:

- Intentionally kill, injure or take any wild bird or their eggs or nests (with certain exceptions) and disturb any bird species listed under Schedule 1 to the Act, or its dependent young while it is nesting;
- Intentionally kill, injure or take any wild animal listed under Schedule 5 to the Act; intentionally or recklessly damage, destroy or obstruct any place used for shelter or protection by any wild animal listed under Schedule 5 to the Act; intentionally or recklessly disturb certain Schedule 5 animal species while they occupy a place used for shelter or protection;
- Pick or uproot any wild plant listed under Schedule 8 of the Act.

Sites of Special Scientific Interest (SSSI) are designated under this Act.

Special Protection Areas (SPA) are strictly protected sites, designated under the Birds Directive, for rare and vulnerable birds and for regularly occurring migratory species.

Natural Environment & Rural Communities (NERC) Act

The *NERC Act 2006* amends the *CROW Act*, by further extending the requirement to have regard for biodiversity to all public authorities, which includes local authorities and local planning authorities and requires that the Secretary of State consults Natural England (NE) in the publication of the list of living organisms and habitat types deemed to be of principal importance in conserving biodiversity.

Relevant Protected Species Legislation

Species	Relevant Legislation	Level of Protection
Great Crested Newt	European protected species under the <i>Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019</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 (Amendment) (EU Exit) Regulations 2019</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 (Amendment) (EU Exit) Regulations 2019</i> . Full protection under <i>Schedule 5</i> of the <i>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	<i>The 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

National Planning Policy Framework (NPPF)

The 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 application (MHCLG, 2023). 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, following the principles of the mitigation hierarchy. The goals set out within the NPPF are for developments to minimise impacts on and provide net gains for biodiversity, including at the catchment or landscape scale.

The NPPF works in conjunction with Government Circular *06/2005 'Biodiversity and Geological Conservation - Statutory Obligations and Their Impact within the Planning System.'*

Regional and 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 Action Plans

The UK Biodiversity Action Plan (UKBAP) was organised to fulfil the Rio Convention on Biological Diversity in 1992, to which the UK is a signatory. A 'UK Post-2010 Biodiversity Framework' was published in July 2012, and succeeded the UKBAP. Much of the work for the UK BAP is now focussed at a country level due to devolution and the creation of country-level biodiversity strategies.

The UKBAP lists of priority species and habitats are still valuable reference sources. Notably, they have been used to help draw up statutory lists of priority species and habitats as required under Section 41 of the NERC Act (2006).

UK Post-2010 Biodiversity Framework

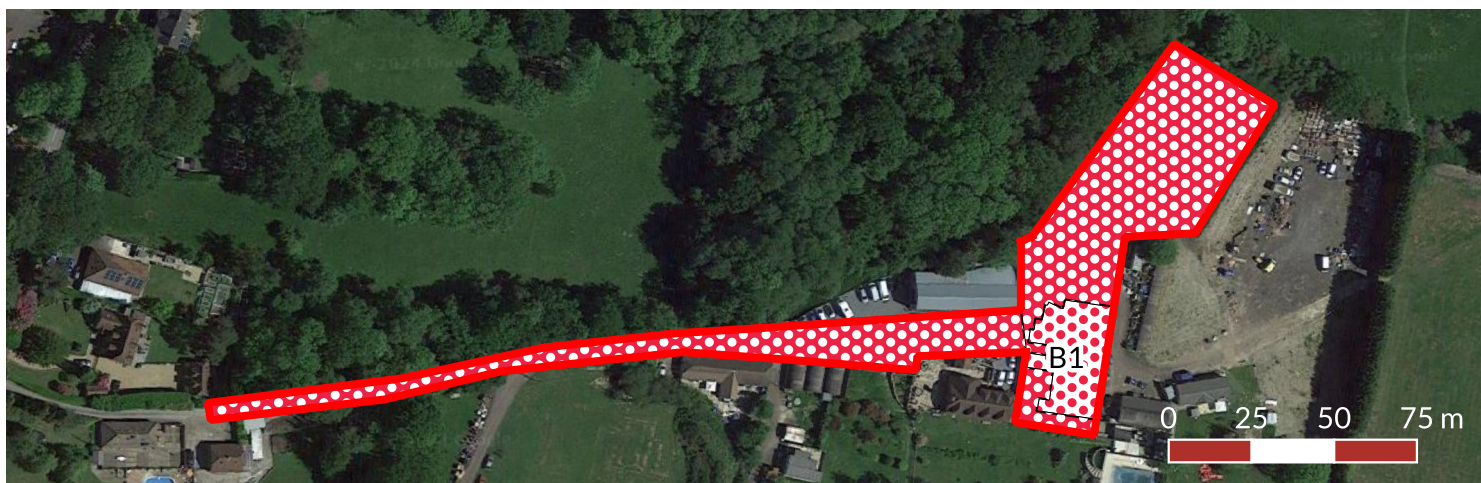
The UK Post-2010 Biodiversity Framework (2012) was produced in response to a change in strategic thinking following the publication of the Convention of Biological Diversity's Strategic Plan for Biodiversity 2011–2020. The Strategic Plan consists of 20 new biodiversity targets for 2020, termed the 'Aichi biodiversity targets' and the launch of the new EU Biodiversity Strategy in May 2011.

The framework sets a structure for action across the UK between now and 2020, including a shared vision and priorities for UK-scale activities to help deliver the Aichi targets and the EU Biodiversity Strategy. A major commitment by Parties to the Convention of Biological Diversity is to produce a National Biodiversity Strategy and/or Action Plan (NBSAP).

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 UK Habitat Plan



Legend

— Application site boundary

• Buildings

• Artificial unvegetated unsealed surface



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Appendix 3 Wildlife Friendly Planting

Table A3.1: Native and wildlife-friendly shrubs (Natural England, Gardening With Wildlife in Mind, 2008).

Common Name	Scientific Name
Hazel	<i>Corylus avellana</i>
Elder	<i>Sambucus nigra</i>
Goat willow	<i>Salix caprea</i>
Hawthorn	<i>Crataegus monogyna</i>
Dog rose	<i>Rosa canina</i>
Guelder rose	<i>Viburnum opulus</i>
Gorse	<i>Ulex europaeus</i>
Broom	<i>Cytisus scoparius</i>
Wayfaring tree	<i>Viburnum lantana</i>
Shrubby cinquefoil	<i>Potentilla fruticosa</i>
Raspberry	<i>Rubus idaeus</i>
Alder buckthorn	<i>Frangula alnus</i>
Wild privet	<i>Ligustrum vulgare</i>
Barberry	<i>Berberis × stenophylla</i>
Barberry	<i>Berberis vulgaris</i>
Bell heather	<i>Erica cinerea</i>
Bilberry	<i>Vaccinium myrtillus</i>
Black currant	<i>Ribes nigrum</i>
Blackthorn	<i>Prunus spinosa</i>
Buckthorn	<i>Rhamnus catharticus</i>
Butcher's-broom	<i>Ruscus aculeatus</i>
Cowberry	<i>Vaccinium vitis-idaea</i>
Cross-leaved heath	<i>Erica tetralix</i>
New Zealand holly	<i>Olearia macrodonta</i>
Daphne	<i>Daphne odora</i>
Dogwood	<i>Cornus sanguinea</i>
Field rose	<i>Rosa arvensis</i>
Firethorn	<i>Pyracanthus angustifolia</i>
Flowering Currant	<i>Ribes sanguineum</i>
Gooseberry	<i>Ribes uva-crispa</i>
Hebe 'Midsummer Beauty'	<i>Hebe</i> sp.
Himalayan honeysuckle	<i>Leycesteria formosa</i>
Holly	<i>Ilex aquifolium</i>
Japanese quince	<i>Chaenomeles japonica</i>
Lilac	<i>Syringa vulgaris</i>
Mexican orange	<i>Choisya ternata</i>
Mezereum	<i>Daphne mezereum</i>
Midland hawthorn	<i>Crataegus laevigata</i>
Oregon grape	<i>Mahonia aquifolium</i>
Osier	<i>Salix viminalis</i>
Portugal laurel	<i>Prunus lusitanica</i>
Privet	<i>Ligustrum ovalifolium</i>
Purple willow	<i>Salix purpurea</i>

Common Name	Scientific Name
Snowy mespilus	<i>Amelanchier canadensis</i> , <i>Amelanchier lamarckii</i>
Spindle	<i>Euonymus europaeus</i>
Spurge laurel	<i>Daphne laureola</i>
Sweet briar	<i>Rosa rubiginosa</i>
Wild privet	<i>Ligustrum vulgare</i>

Table A3.2: Native and wildlife-friendly trees (Natural England, Gardening With Wildlife in Mind, 2008).

Common Name	Scientific Name
Pedunculate oak	<i>Quercus robur</i>
Ash	<i>Fraxinus excelsior</i>
Wych elm	<i>Ulmus glabra</i>
Whitebeam	<i>Sorbus aria</i> agg.
Rowan	<i>Sorbus aucuparia</i>
Aspen	<i>Populus tremula</i>
Apple	<i>Malus domestica</i>
Bird cherry	<i>Prunus padus</i>
Common alder	<i>Alnus glutinosa</i>
Crab apple	<i>Malus sylvestris</i>
Crack willow	<i>Salix fragilis</i>
Downy birch	<i>Betula pubescens</i>
Field maple	<i>Acer campestre</i>
Hornbeam	<i>Carpinus betulus</i>
Juniper	<i>Juniperus communis</i>
Large-leaved lime	<i>Tilia platyphyllos</i>
Small-leaved lime	<i>Tilia cordata</i>
Pear	<i>Pyrus communis</i>
Scots pine	<i>Pinus sylvestris</i>
Sessile oak	<i>Quercus petraea</i>
Silver birch	<i>Betula pendula</i>
Sweet chestnut	<i>Castanea sativa</i>
Wild cherry	<i>Prunus avium</i>
Wild service-tree	<i>Sorbus torminalis</i>
Yew	<i>Taxus baccata</i>

Table A3.3: Moth pollinator species (Butterfly Conservation, 2019).

Common Name	Scientific Name
Honeysuckle	<i>Lonicera periclymenum</i>
Jasmine	<i>Jasminum officinale</i>
Evening primrose	<i>Oenothera biennis</i>
Sweet rocket	<i>Hesperis matronalis</i>
Night-scented stock	<i>Matthiola bicornis</i>
Aubretia	<i>Aubretia</i> sp.
Cuckooflower	<i>Cardamine pratensis</i>
Forget-me-not	<i>Myosotis</i> sp.
Honesty	<i>Lunaria annua</i>

Pansy	<i>Viola</i> sp.
Primrose	<i>Primula veris</i>
Wallflower	<i>Erysimum</i> sp.
French marigold	<i>Tagetes</i> sp.
Ice plant	<i>Sedum</i> sp.
Knapweed	<i>Centaurea</i> sp.
Lavender	<i>Lavendula</i> sp.
Marjoram	<i>Origanum vulgare</i>
Michaelmas daisy	<i>Aster amellus</i>
Mint	<i>Mentha</i> sp.
Scabious	<i>Scabiosa</i> sp.
Thyme	<i>Thymus</i> sp.