Libby Morris
Ecologist

Ecological Appraisal

Site Name

Junction Road

Client

Mrs K. Safronova

Date of Issue

25th March 2025

Author

Libby Morris, BSc (Hons)

Report Summary

1. Libby Morris was commissioned by Mrs K. Safronova to provide an Ecological Appraisal regarding the potential for any protected/notable species and/or habitats to be present at the site on Junction Road, along with an assessment of the potential ecological constraints and opportunities in relation to the application for the construction of an annexe with associated soft landscaping.

2. The site currently comprises primarily modified grassland which was mostly disturbed bare ground at the time of the survey. There are planted ornamental hedges north western boundary and the southern boundary. There is a fire pit along with construction materials piled up within the site.

3. The proposed works comprise the construction of five residential dwellings with associated soft and hard landscaping.

4. There are no designated sites within the site itself, although Priority Habitat lowland deciduous woodland lies within and adjacent to the site, despite there having been no woodland habitat present within the red line boundary since 2014. Section 3.1 of this report discusses this in more detail.

5. Recommendations for enhancements to the site have been laid out in Section 5. These include the implementation of hibernacula and enhancement of terrestrial habitat for reptiles, as well as the implementation of bat and bird boxes and native planting.

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About the Author

This report has been prepared by Libby Morris, BSc (Hons), an ecologist with seven years' experience undertaking bird surveys as well as being a FISC level 4 accredited botanist and a MoRPH licenced river surveyor. She is experienced in habitat and PEA surveys as well as specialising in statutory Biodiversity Net Gain and habitat assessments.

1. Introduction

1.1 Purpose of the Report

Libby Morris has been commissioned to undertake an Ecological Appraisal on land on Junction Road by the Mrs K. Safronova. This report summarises the findings of a walkover of the site undertaken by Libby Morris, BSc (Hons) on the 7th of March 2025. An assessment of the site was undertaken to assess the potential for any protected habitats or species to be present at the site. This report also includes an assessment of any potential ecological constrains and opportunities presented within the site.

Recommendations for further surveys that may be required to inform a planning application and Ecological Impact Assessment (EcIA) of the proposal are provided where necessary, and measures to avoid, mitigate and/or compensate for significant adverse effects are summarised. The potential to incorporate ecological enhancement measures as part of the scheme is discussed.

In order to achieve this aim the mitigation hierarchy should be adopted so that the following applies:

- **Avoidance** - Ecological features of importance should be avoided in the first instance through the design process by either designing around them, alternative design or even an alternative location.
- **Mitigation** – Adverse impacts that cannot be avoided should be adequately mitigated for to minimise negative impacts on the ecological features. Mitigation measures can either be implemented during the design process or construction phase.
- **Compensation** – This should only be used in exceptional circumstances or as a last resort, after all options for avoidance and mitigation have been fully considered. Compensation therefore can be applied to any residual impacts that cannot be avoided or mitigated.
- **Enhancements -** Seek to provide net benefits for biodiversity over and above requirements for avoidance, mitigation or compensation.

This ecological appraisal is designed to inform the client about the key findings of the site survey alongside the results of desk study research in relation to the context of the site, considering both the current condition of the site and the condition of the site post-works.

1.2 Site Background

The site is located in the centre of Burgess Hill in an urban location. There is a trainline directly adjacent to the western boundary of the site, with urban development to the eastern boundary. To the north and west lies lowland deciduous woodland with urban development expanding further to the western boundary. The grid reference for the site is TQ 31991 19657. The site boundary for the site within the wider landscape is shown in Figure 1.

Figure 1. An aerial image showing the location of the application site within the wider landscape. Images produced courtesy of Google maps (Map data ©2024 Google).

The proposed works comprise the construction of five residential dwellings with both soft and hard landscaping. Figure 2 shows the proposed plans for the site.

Figure 2. Proposed plans for site at Junction Road, Burgess Hill.

2. Methodology

2.1 Desk Study

A desk study was undertaken using online mapping tool Magic (www.magic.gov.uk) to identify the following, either within the site itself or within a 2km radius of the site:

- A search for granted EPS licences within 2km of the site
- Designated sites within a 2km radius of the site
- Priority Habitats within a 2km radius of the site
- A review of current and historical ecological reports for the study site and sites within a 2km radius of the site
- Ponds within 500m of the site which may hold populations of Great Crested Newt (*Triturus cristatus)*

2.1.1 Zone of Influence

The assessment conducted for this report has considered the area in which ecological features could be subject to significant effects from the proposed development. The area of

the potential effects is often wider than the actual perimeter of the development site and is known as the Zone of Influence.

The Zone of Influence varies for different impacts and each designated site, habitat and species has been considered in relation to their sensitivity to the proposed development.

- 5km for statutory designated sites, extended to 10km for Special Areas of Conservation (SAC) for bats
- 2 km for non-statutory designated sites
- 250 m for Great Crested Newt
- 30 m for Badger (*Meles meles*) setts
- 50 m from bat roosts
- 100 m from Otter (*Lutra lutra*) holts
- 5 m for watercourses suitable for Water Vole (*Arvicola amphibius*)

2.2 Field Based Studies

A site walkover was undertaken on the 7th of March 2025 by Libby Morris, BSc (Hons) to assess the habitats and ecological features on site and their suitability to hold populations of European Protected Species (EPS) and other legally protected species including bats, reptiles, Common Dormouse *(Muscardinus avellanarius)* and amphibians. Habitats and were classified based on UKHAB version 2.01[1], with a full plant species list recorded. Habitat types were classified using both UKHAB and the National Vegetation Classification (NVC)[2]. The survey was undertaken in accordance with CIEEM guidelines.

2.3 Great Crested Newt

Great Crested Newts require aquatic habitats such as ponds for breeding (although less often ditches are occasionally used), where eggs are laid on aquatic vegetation in spring. Juveniles spend most of their time on land and terrestrial phases range a considerable distance from the original breeding site. The terrestrial habitat utilised by newts varies greatly, with the most frequent being pastoral and arable farmland, woodland, scrub and grassland. Great Crested Newt populations are less able to succeed in areas with a high degree of landscape

[1] UKHab. The UK Habitat Classification Version 2.01. 2023

[2] Rodwell, J. 1991. National Vegetation Classification, British Plant Communities Volumes 1-5. Cambridge University Press.

fragmentation, since they often occur in metapopulations which help ensure the survival of overall populations should a single breeding habitat be negatively impacted.

2.4 Common Dormouse

Common Dormouse are found in deciduous woodland and hedgerows, particularly coppiced woodland with an established understorey. They have low population densities and dispersal rates, making them vulnerable to fragmentation of the surrounding landscape.

The site was broadly assessed for its potential to support dormice. This included use of on-line mapping resources to assess the surrounding area for connectivity to woodland, scrub and hedgerows to the wider landscape as well as recording species often used by Common Dormouse such as Hazel (*Corylus avellana)* and Hawthorn (*Crataegus monogyna*).

2.5 Bats

Bats use a wide range of both urban and rural features for roosting and hibernation, including loft spaces, cavity walls and loose tiles, mortice joints as well as gaps in weatherboarding in built structures. They can also be found in trees with ecological niches such as holes, loose bark and ivy. There are a few key habitat characteristics that make good bat foraging habitats, primarily a suitable habitat structure including linear features such as hedgerows which provide foraging and commuting opportunities, allowing bats to move freely across the landscape. The habitats around the site were assessed both on-site and through the desk study for connectivity to assess suitability for foraging and commuting bats.

Both buildings and trees were broadly assessed for potential roosting and hibernation opportunities, with evidence confirming the presence of bats recorded as appropriate.

2.6 Reptiles

Reptiles are found in a variety of habitats, primarily rough/rank grassland, gardens, areas of scrub, wetlands, woodland edges and hedgerows. All six native British reptile species are considered to have declined dramatically in the last century, largely due to loss, degradation and fragmentation of habitat.

The habitats on the site were broadly assessed for their potential to support reptiles, particularly Common Lizard *(Zootoca vivipara*), Slow-worm (*Anguis fragilis*) and Grass Snake *(Natrix Helvetica)*. Particular attention was paid areas of rough grassland and woodland edges that offered refuge opportunities as well as features suitable for basking, hibernation sites such as banks, piles of organic matter and opportunities for foraging (rough grassland and scrub).

2.7 Badgers

Badgers *(Meles meles)*occupy a wide range of habitats including woodland, scrub, hedgerows, open fields and urban areas. Food supply is one of the most important factors influencing habitat selection. Population density and territory size are all influenced mainly by food availability, with an abundance of earthworms being particularly important. Sett sizes can reach up to 150ha, comprising main setts as well as annexe, subsidiary and outlying setts.

On site habitats were assessed for their potential to support badgers, with connectivity to the wider landscape and any potential for badger presence around the site also assessed. Any signs of badger activity such as setts, footprints, latrines and pathways were recorded.

2.8 Breeding, Wintering and Migratory Birds

Birds use a wide range of habitats across the year for breeding, feeding and roosting as well as when migrating. Woodlands, gardens, hedgerows, arable fields and buildings all offer valuable habitat.

The site was assessed for habitats which offered opportunities for the above, with any species seen or heard during the survey recorded. Particular attention was paid to species red-listed Birds of Conservation Concern and those on Schedule 1 of the Wildlife and Countryside Act 1981 (Appendix 1).

2.9 Other species

Habitats on site were assessed for their potential to support species of principal importance for nature conservation (Section 41 NERC Act 2006, Appendix 1) and other notable species. This includes mammals such as Hedgehog *(Erinaceus europaeus)*, Brown Hare *(Lepus europaeus)*, and invertebrates. Particular attention was paid to habitats with standing dead wood and botanically diverse habitats.

2.10 Invasive Species

Invasive Non-Native Species (INNS) are plant species which are not native to Britain and pose a conservation threat to native biodiversity and habitats. Those listed on Schedule 9 of the Wildlife and Countryside Act (1981). Any incidental sightings of INNS were recorded during the survey walkover.

3. Desk and Field Study Results

3.1 Statutory Designated Sites and Priority Habitats

There are two designated sites within 2km of the site (Figure 3). The first is Bedelands Farm which lies 650m north of the site and is a Local Nature Reserve (LNR). It comprises 33 hectares of ancient and lowland deciduous woodland and wildflower meadows owned by Mid Sussex District Council.

The second is Ditchling Common which lies 1.25km east of the site and is a Site of Scientific Interest (SSSI). It comprises 66.5 hectares of lowland deciduous woodland, woodpasture and parkland and heathland.

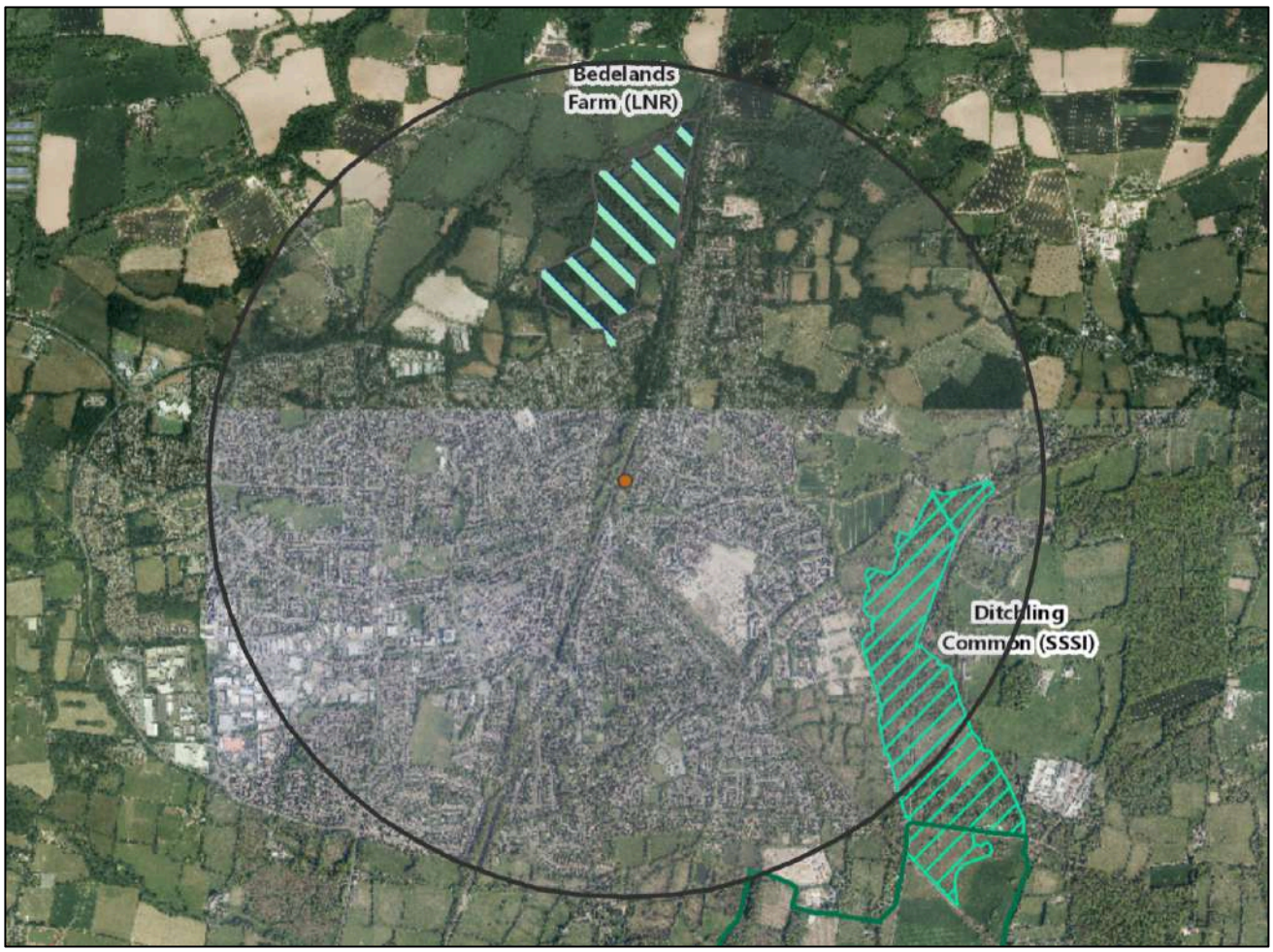


Figure 3. Designated sites within 2km of application site. Image courtesy of Magic Maps, 2024.

There are five Priority Habitat types within 2km of the centre of the application site (Figure 4). These are listed in Table 1.

Figure 4. Priority Habitats within 2km of application site. Image courtesy of Magic Maps, 2024.

Table 1. Priority habitats within 2km of site

Habitat	Designation	Description	Distance
Lowland Deciduous woodland	Priority Habitat under section 6 of the NERC act	There is great variety in the species composition of the canopy layer and the ground flora, and this is reflected in the range of associated NVC and Stand Types.	Numerous parcels. The nearest being within and adjacent to the site; 45m west of the site; 316m south of site; 390m north of site.
Good quality semi-improved grassland	Non-priority habitat	Although not a priority habitat, NVC communities considered as semi-improved grassland are also listed as these swards are often the starting point for grassland restoration, and	Three parcels. The nearest being 60m west of site; 1.76km east of site; 1.9km east of the site of site.

		assessing progress requires a judgement on where a sward lies on the transition from semi-improved grassland to semi-natural, priority habitat.	
Ancient woodland	Priority Habitat under section 6 of the NERC act	Many ancient woods are Local Wildlife Sited and are encompassed by the Biodiversity Action Plan list of priority habitats (NERC Act 2006)	Numerous parcels. The nearest being: 245m north of site; 640m north of site; 960m north east of site
Wood-pasture and parkland	Priority Habitat under section 6 of the NERC act	Mosaic habitats valued for their trees, especially veteran and ancient trees and the plants and animals that they support. Specialised and varied habitats within wood- pasture and parkland provide a home for a wide range of species, many of which occur only in these habitats, particularly insects, lichens and fungi which depend on dead and decaying wood.	One parcel 1.24km east from site
Traditional Orchard	Priority Habitat under section 6 of the NERC act	Orchards support a wide range of wildlife and contain UK SPI, as well as an array of Nationally Rare and Nationally Scarce species. The wildlife of orchard sites includes fruit trees, scrub, hedgerows, orchard floor habitats, fallen dead wood and associated features such as ponds and streams.	Two parcels, the closest being 1km north west of site; the second 1.27km north east of site.

3.2 Granted EPS Licences

There are thirteen granted EPS licences within a 2km radius of the site (Figure 5). These are laid out in Table 2.

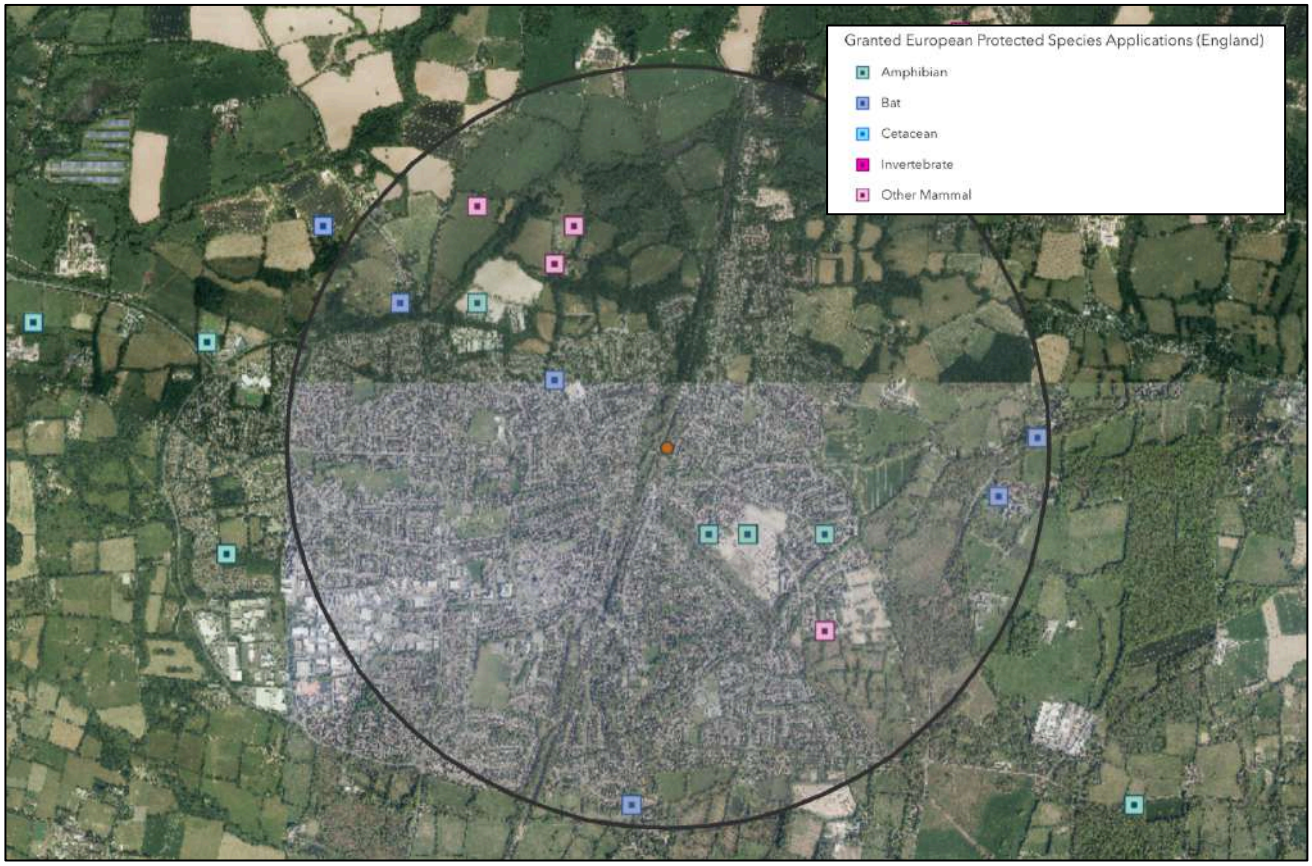


Figure 5. Aerial image showing locations of granted EPS licences within 2km of the application site. Images produced courtesy of Magic Maps, contains public sector information licensed under the Open Government Licence v3.0

Table 2. Granted EPS Licences within 2km of the application site.

Species	Date of Licence	Description	Distance
Great Crested Newt	2014-2027	Licence pertaining to the destruction of a breeding and resting place of this species	476m south east of the site
Great Crested Newt	2015-2027	Licence pertaining to the destruction of a resting place of this species	600m south east of the site
Common Pipistrelle	2016-2016	Licence pertaining to the destruction of a breeding and resting place of this species	670m west of the site
Great Crested Newt	2017-2033	Licence pertaining to the destruction of a resting place of this species	930m east of the site

Brown Long-eared Bat; Soprano Pipistrelle	2020-2025	Licence pertaining to the destruction of a resting place of this species	1km north west of the site
Great Crested Newt	2016-2026	Licence pertaining to the destruction of a breeding place of this species	1.2km north west of the site
Common Dormouse	2017-2023	Licence pertaining to the destruction of a breeding and resting place of this species	1.2km south east of the site
Common Dormouse	2020-2029	Licence pertaining to the destruction of a breeding and resting place of this species	1.2km north west of the site
Common Dormouse	2020-2029	Licence pertaining to the destruction of a resting place of this species	1.3km north west of the site
Brown Long-eared Bat; Common Pipistrelle; Serotine	2010-2012	Licence pertaining to the destruction of a breeding and resting place of this species	1.7km east of the site
Common Dormouse	2020-2026	Licence pertaining to the destruction of a breeding and resting place of this species	1.55km north west of the site
Brown Long-eared Bat; Common Pipistrelle	2017-2027	Licence pertaining to the destruction of a breeding and resting place of this species	1.9km east of the site
Soprano Pipistrelle	2017-2017	Licence pertaining to the destruction of a resting place of this species	1.9km south of the site

3.3 On-site Habitats

The application site comprises primarily modified grassland which was mostly disturbed bare ground at the time of the survey (Photograph 1). Species present within the grassland habitat at the time of the survey were few but were dominated by Yorkshire Fog *(Holcus lanatus)*, with Common Bent *(Agrostis capillaris)*, Perennial Rye *(Lolium perenne)*, Annual Meadow-grass *(Poa annua)* and Common Daisy *(Bellis perennis).* There are newly planted ornamental hedges comprising Laurel *(Laurus* sp.) and Cypress Pine *(Callitris* sp.*)* along north western boundary (Photograph 2) and the southern boundary. This hedgerow supports a species-rich native hedgerow facing south onto the public walkway aspect of the boundary (Photograph 3). This

comprises native species dominated by Hawthorn *(Crataegus monogyna)*with Blackthorn (Prunus spinosa), Bramble *(Rubus fruticosa* agg.*)*, Ivy *(Hedera helix)*, Honeysuckle *(Lonicera periclymenum)*, Birch *(Betula* sp.*)*and Dog Rose *(Rosa canina)*also recorded. Much of the main site itself had been recently covered with a layer of mulch (Photograph 4).

Photograph 1 (left): Modified grassland in poor condition dominating majority of the site

Photograph 2 (right): Laurel hedging to north west of site

Photograph 3 (left): Species-rich native hedgerow to southern aspect of site

Photograph 4 (right): Mulched ground within site

There was a fire pit along with construction materials and vehicles being stored within the site at the time of the survey (Photograph 5). The western boundary comprises a wooden fence with occasional tree and concrete blocks stored along the railwayline (Photograph 6).

Photograph 5 (left): Construction materials and vehicles stored on site

Photograph 6 (right): Concrete blocks against western site boundary

3.4 Great Crested Newt and other Amphibians

One pond was identified (Figure 5) within 500m of the site. It is located 335m south east of the site in a residential park on Wyvern Way. This pond is isolated from the site by reaches of urban development. The train line to the west of the site prevents any amphibian populations to the west of the trainline from utilising the site.

Figure 6. Aerial image showing the location of waterbodies highlighted in orange within 500m of the application site (highlighted in red). Images produced courtesy of Magic Maps

The site itself comprises disturbed ground with piles of construction materials and vehicles present. These piles are being used as part of the preparation of the site and appeared to be newly placed at the time of the survey. There is no connectivity to waterbodies from the site. South of the site is lowland deciduous woodland habitat which holds suitable refuge habitat for amphibians. However, no waterbodies are present within this area and it is fragmented from other habitats by fenced gardens, trainline and urban development. It is not considered that the site itself or adjacent habitat holds populations of amphibians due to its isolation from suitable breeding habitat.

Records of amphibians obtained from the Sussex Biodiversity Records Centre show 396 records of amphibians within 2km of the application site.

Table 3. Records of amphibians from the Sussex Biodiversity Records Centre within 2km of site

Species	Designation	Number of Records within 2km of site	Distance of Closest Record from site
Great Crested Newt *(Triturus cristatus)*	• European Protected Species: Protected under the Conservation of Habitats and Species Regulations 2017. • Wildlife and Countryside Act 1981	108	540m south east of site made in 2015, 570m south of site made in 2020. Most recent record made in 2023 1.86km from site
Common Toad *(Bufo bufo)*	• Biodiversity Action Plan UK list of priority species: Priority Species, Biodiversity Lists - England • England NERC S.41 • The Conservation of Habitats and Species Regulations 2010 Schedule 2 • Wildlife and Countryside Act 1981	32	215m east of site made in 2002, 365m south of site in 1988. Last record made in 2023, 1.7km south from site.
Common Frog *(Rana temporaria)*	• Wildlife and Countryside Act 1981	110	215m east of site made in 2010, 370m south of site made in 2010.

Palmate Newt *(Lissotron helveticus)*	• Wildlife and Countryside Act 1981	29	320 north east of site made in 2002, 160m south of site made in 2002. Most recent record made in 2023 1.8km from site
Smooth Newt *(Lissotriton vulgaris)*	• Wildlife and Countryside Act 1981	117	Closest record 160m south of site made in 2002, 220m 2002. Most recent record made 900m north east of site in 2024

3.5 Common Dormouse

The site comprises primarily damaged grassland with some ornamental planting. There is no woodland or hedgerow habitat suitable for Common Dormouse present within the site. The woodland north of the site is isolated from other parcels of woodland by urban development and does not hold the structural complexity required for Common Dormouse. It is highly unlikely that this species is present within or adjacent to the site.

There are 45 records of Common Dormouse from the Sussex Biodiversity Records Centre within a 2km radius of the application site. The nearest records lie 1.1km north west from site made in 2010, and 1.1km south east of site made in 2015. The most recent record was made in 2023 in Bedelands Local Nature Reserve.

3.6 Roosting and Foraging Bats

There are no mature trees or buildings within the site, and no ecological niches suitable for bats within the site. The hedges on the boundaries of the site itself are newly established and are not yet valuable linear features for foraging bats. The site itself does not hold vegetation or features suitable for foraging bats.

A total of 195 records of bat species were obtained from the Sussex Biodiversity Records Centre within a 2km radius. These are shown in Table 4.

Table 4. Records of bats from the Sussex Biodiversity Records Centre within 2km of site

Species	Designation	Number of Records within 2km of site	Distance of Closest Record from site
Common Pipistrelle *(Pipistrellus pipistrellus)*	• Biodiversity Action Plan UK list of priority species: Priority Species, Biodiversity Lists - England • England NERC S.41 • The Conservation of Habitats and Species Regulations 2010 Schedule 2 • Wildlife and Countryside Act 1981	48	Nearest record 240m north east of site made in 2010. Most recent record made in 2023, 1.25km south west of site.
Soprano Pipistrelle *(Pipistrellus pygmaeus*	• Biodiversity Action Plan UK list of priority species: Priority Species, Biodiversity Lists - England • England NERC S.41 • The Conservation of Habitats and Species Regulations 2010 Schedule 2 • Wildlife and Countryside Act 1981	13	Nearest record 620m north of site made in 2015. Most recent record made in 2022 1.7km south east of site.
Brown Long-eared Bat *(Plecotus auritus)*	• Biodiversity Action Plan UK list of priority species: Priority Species, Biodiversity Lists - England • England NERC S.41 • The Conservation of Habitats and Species Regulations 2010 Schedule 2 • Wildlife and Countryside Act 1981	29	Nearest records 170m south east of site made in 1997, 170m north east of site made in 2005, 315m east from site made in 2007. Most recent record made in 2020 2km south of site
Serotine Bat *(Eptesicus serotinus)*	• Biodiversity Action Plan UK list of priority species: Priority Species, Biodiversity Lists - England • England NERC S.41 • The Conservation of Habitats and Species Regulations 2010 Schedule 2	6	Nearest record 650m south of site made in 1006. Most recent record made in 2020 1.9km south east of site

	• Wildlife and Countryside Act 1981		
Myotis sp.	• Biodiversity Action Plan UK list of priority species: Priority Species, Biodiversity Lists - England • England NERC S.41 • The Conservation of Habitats and Species Regulations 2010 Schedule 2 • Wildlife and Countryside Act 1981	11	Nearest record 895m south west of site made in 2010. Most recent record made in 2020, 1.4km south west of site.
Noctule *(Nyctalus noctula)*	• Biodiversity Action Plan UK list of priority species: Priority Species, Biodiversity Lists - England • England NERC S.41 • The Conservation of Habitats and Species Regulations 2010 Schedule 2 • Wildlife and Countryside Act 1981	7	Nearest record 870m south of site made in 1994. Most recent record made in 2020 1.8km south of site.
Natterer's Bat *(Myotis nattereri)*	• Biodiversity Action Plan UK list of priority species: Priority Species, Biodiversity Lists - England • England NERC S.41 • The Conservation of Habitats and Species Regulations 2010 Schedule 2 • Wildlife and Countryside Act 1981	51	Nearest and most recent record made 1.4km south of site in 2023.

3.8 Reptiles

The habitats present within the application site do not hold any value for reptiles given the lack of vegetative structure or permanent refugia. The woodland to the north is an isolated parcel with significant urban disturbance and is therefore unlikely to hold reptile populations.

There were 142 records of reptile species obtained from the Sussex Biodiversity Records Centre within 2km of the application site. These are shown in Table 5.

Table 5. Records of reptiles from the Sussex Biodiversity Records Centre within 2km of site

Species	Designation	Number of Records within 2km of site	Distance of Closest Record from site
Common Lizard *(Zootoca vivipara)*	• Wildlife and Countryside Act 1981	72	Nearest record 240m north east of site made in 2010. Most recent record made in 2023, 1.25km south west of site.
Grass Snake *(Natrix natrix)*	• Wildlife and Countryside Act 1981	50	Nearest record 150m north east of site made in 2002. Most recent record made in 2023 1.2 noth of site.
Slow-worm *(Anguis fragilis)*	• Wildlife and Countryside Act 1981	20	Nearest records 170m south of site made in 2002. Most recent record made in 2022 1.9km south east of site

3.9 Badgers

No signs of any badger activity were seen during the survey assessment, and although there are habitats of value for this species the wider landscape, there is no suitable habitat within the application site. It is likely that if any setts were situated within 30m of the site boundary, then evidence of badger activity would have been observed.

Records of Badger are not accessible from the Sussex Biodiversity Records Centre.

3.10 Breeding, Wintering and Migratory Birds

The hedgerows within the application site hold opportunities for breeding or foraging birds and the native species-rich hedgerow adjacent to the southern boundary held significant breeding bird activity at the time of the survey. The birds recorded at the time of the survey within or adjacent to the site are shown in Table 6.

Table 6. Birds recorded on site at the time of the survey

Species	Common name	Designation (BoCC5)
Parus major	Great Tit	Green listed
Cyanistes caeruleus	Blue Tit	Green listed
Turdus merula	Blackbird	Green listed
Parus columba	Wood pigeon	Green listed
Corvus monedula	Jackdaw	Green listed
Prunella modularis	Dunnock	Amber listed
Pica pica	Magpie	Green listed

There is limited foraging habitat on the site for birds, given the lack of vegetation and invertebrates.

Records of notable bird species obtained from the Sussex Biodiversity Records Centre since 2015 within 2km of the site are shown in Table 6.

Table 6. Records of birds from the Sussex Biodiversity Records Centre within 2km of site

Species	Designation	Number of Records	Distance of Closest Record from site
Yellowhammer *(Emberiza citronella)*	• Wildlife and Countryside Act 1981 • Red Listed under the Birds of Conservation Concern 2021 • Wildlife and Countryside Act 1981 • Section 41 of the Natural Environment and Rural Communities Act	5	Nearest and most recent record 360m north of site in 2020.
Starling *(Apus apus)*	• Wildlife and Countryside Act 1981	18	Nearest record 370m north of site in 2010.

	• Red Listed under the Birds of Conservation Concern 2021 • Wildlife and Countryside Act 1981 • Section 41 of the Natural Environment and Rural Communities Act		Most recent record made 600m south west in 2020.
House Sparrow *(Passer domesticus)*	• Wildlife and Countryside Act 1981 • Section 41 of the Natural Environment and Rural Communities Act • Red Listed under the Birds of Conservation Concern 2021	38	Nearest record 490m south east of site made in 2015
Starling *(Sturnus vulgaris)*	• Wildlife and Countryside Act 1981 • Section 41 of the Natural Environment and Rural Communities Act • Red Listed under the Birds of Conservation Concern 2021	22	Nearest record 635m south of site made in 2018
Cuckoo *(Cuculus canorus)*	• Wildlife and Countryside Act 1981 • Section 41 of the Natural Environment and Rural Communities Act • Red Listed under the Birds of Conservation Concern 2021	16	Nearest record 740m east of site made in 2015
Lesser Spotted Woodpecker	• Wildlife and Countryside Act 1981 • Section 41 of the Natural Environment and Rural Communities Act • Red Listed under the Birds of Conservation Concern 2021	4	Nearest and closest record 1.3km north west of site made in 2018

3.11 Other Species

The application site does not hold suitable habitat for foraging Hedgehog or notable plants or invertebrates. No direct evidence of any protected invertebrates or plants was found, though the short seasonal nature of many invertebrates (such as butterflies) means that they are only visible for brief periods, with the survey being undertaken before the time period they would be expected.

Records obtained from the Sussex Biodiversity Records Centre show two significant records of Hedgehog to the application site. The first was recorded in 2010, 70m south of the site. The second was recorded in the woodland adjacent to the site in 2006, 350m north east of the site.

Two records of Stag Beetle *(Lucanus cervus)*were also made locally to the site, two being made 360m north of the site in 2015 and again in 2015. Stag Beetles are protected under Section 5 of the Wildlife and Countryside Act 1981 and are classed as a priority species under section 40 and 41 of the NERC act.

3.12 Invasive Species

No INNS were recorded on site at the time of the survey.

Records obtained from the Sussex Biodiversity Records Centre show that records of Mandarin Duck *(Alix galericulata)*, Canada Goose *(Branta canadensis)*, Ring-necked Parakeet *(Psittacula krameri)*, Three-cornered Garlic *(Allium triquetrum)*, Red Valerian *(Centranthus ruber)*, Wall Cotoneaster *(Cotoneaster horizontalis)*, Japanese Knotweed *(Fallopia japonica)*, Winter Heliotrope *(Petasites fragrans)*, Harlequin Ladybird *(Harmonia axyrisis)*, Gypsy Moth *(Lymantria dispar)*and Grey Squirrel *(Sciurus carolinensis)*have been made within 2km over the site.

3.13 Survey Limitations

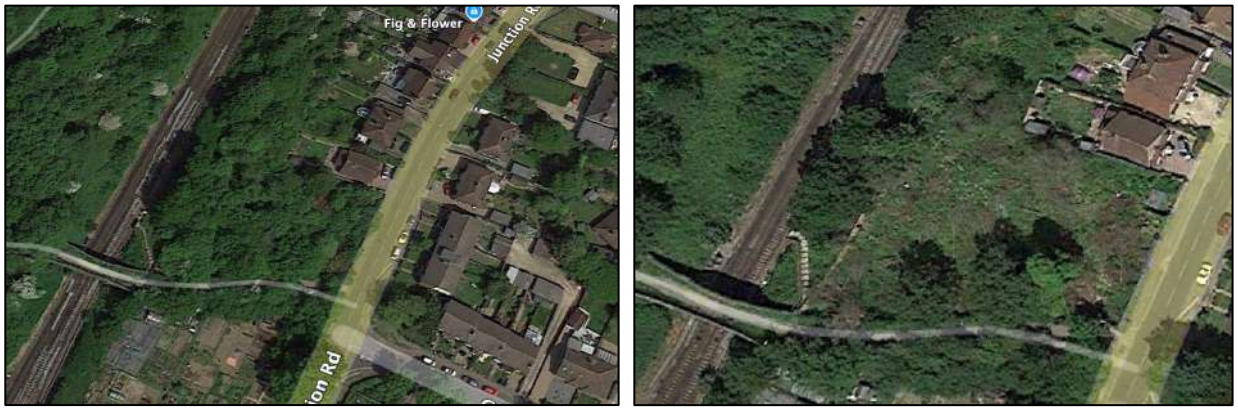
A site assessment such as this is only able to act like a 'snapshot' to record the presence of any flora or fauna at the time of the survey. It is therefore possible that some species may not have been present during the survey, but may be evident at other times of the year. For this reason, habitats are assessed for their potential to support some species, even where no direct evidence has been found.

4. Assessment of Impact

4.1 Designated Sites and Priority Habitats

There are two designated sites within 2km of the site, however given the small scale of the proposed works, it is considered that the impact will be at site level only and will not impact any designated sites.

Results of the desk study returned data showing that the site itself is Priority Habitat lowland deciduous woodland. However, at the time of the survey no trees were present on the site and historic aerial imagery shows that this site was cleared of woodland between 2013-2014 (Figures 7a and 7b).



Figures 7a and 7b. Historic aerial image showing woodland present on site in 2013 and the clearance recorded in the next aerial imagery available in 2014

Given that no woodland was visible at the time of the survey and none appears to have been present since 2014, this report is basing the risk of impact to Priority Habitats on there being no Priority Habitat within the red line boundary of the application site.

The nearest designated Priority Habitat is deciduous woodland adjacent to the north and western boundaries of the site. These habitats are isolated and contained by previous urban development and the application site is separated from these habitats by fencing. No trees or hedges are due to be impacted by the proposed works and it is not considered that any impact to connectivity between the site and Priority Habitats will be caused by the proposed development.

4.2 Habitats

The site comprises species-poor modified grassland in poor condition and ornamental hedgerows. The habitats within the site itself due to be impacted are of low value for biodiversity and the proposed works will have low impact on biodiversity at a site level only.

4.3 Great Crested Newts and Amphibians

There is one pond within 500m of the application site. However, this is isolated from the site by urban development. There are no suitable habitats on site for amphibians and the proposed works are extremely unlikely to impact amphibian populations. No further surveys are required.

4.4 Common Dormouse

There are no hedgerows or woodland suitable for Common Dormouse present within the application site. There are no hedgerows or woodland that offer suitable habitat for Common Dormouse adjacent to the application site. No further surveys are required.

4.5 Roosting and Foraging Bats

No trees or buildings are set to be impacted by the proposed works, and no further surveys are required. However, given that there are linear features valuable for commuting bats within habitats adjacent to the site, a bat-sensitive lighting scheme is advised post-works. Enhancements for bats are listed in Section 5. An overview of lighting scheme requirements is shown in Appendix 2.

4.6 Reptiles

The habitats on site do not hold value for reptiles. There is suitable habitat in the wider site within the woodland to the west and north although this is an isolated habitat and populations are unlikely. No further surveys are required across the site to check for the presence of reptiles. Enhancement recommendations for reptiles are laid out in Section 5.

4.7 Badgers

No signs of badger activity were identified during the assessment and no badger setts were recorded on or near to the zone of impact. The works are unlikely to have impact on badgers or their setts and no further surveys are required.

4.8 Breeding, Wintering and Migratory Birds

Given the close proximity to trees and hedges which hold valuable habitat for breeding birds, works should be limited to outside of the breeding bird season (March-July inclusive) where possible to ensure that no nesting birds are impacted due to construction. No trees or other suitable nesting habitat is proposed to be removed within the area of the application site or the zone of impact. No further surveys are required. Enhancements for breeding birds are laid out in Section 5.

4.9 Other Species

The impact on any other notable species such as Hedgehog is low, given that there is no habitat of value for foraging within the site. The lack of floristic species within the grassland habitat makes this habitat unsuitable for many invertebrate species and no notable plant species are present on the site. The woodland adjacent to the site does offer valuable habitat for various mammals, invertebrates and flowering species, however this is not subject to impact through the proposed works.

4.10 Invasive Species

No invasive species were recorded during the site walkover and no further surveys are required. Enhancement recommendations to the site include the planting of native floristic species to benefit pollinating invertebrates. These are laid out in Section 5.

5. Enhancement Opportunities

The site currently does not hold high value for biodiversity, with species-poor grassland and ornamental hedgerows comprising the majority of the site. Incorporating the below enhancements will improve the site for invertebrates, amphibians, small mammals and birds.

Improving suitable habitat for amphibians, reptiles and invertebrates within the site, particularly along the site boundaries and adjacent to the woodland will improve connectivity between this site and suitable habitat within the wider landscape. Recommendations for doing so include:

- Improvement of terrestrial habitat quality through introducing longer, unmanaged grassland and scrubby areas between the pond and the site boundaries to enhance the 'wildlife corridors' within, and extending beyond, the western and northern boundaries.
- Allowance of a margin of uncut vegetation up to five metres or so in width alongside nearby hedges or other boundaries
- To ensure the presence of some dense cover throughout the year through the creation of log piles and dead wood hibernacula to create hibernation and refuge opportunities for reptiles and invertebrates. This is significant given that records show a population of Stag Beetle within close proximity to the site.

The implementation of bird boxes such as Swift boxes or 'Sparrow Hotels' into the proposed dwellings on the southern and western faces of the property during the construction will enhance the site for breeding birds, particularly red listed species. This will significantly enhance the wider site given that records of these species have been made within the adjacent woodland. Equally, implementing bat boxes into the dwellings at a height of at least 4m close to the woodland and railway line will further enhance this site by incorporating it into an existing linear feature for bats. Equally, As best practice, any lighting scheme should be designed to minimise light spill around any potential commuting routes for commuting bats. See Appendix 2 for full lighting guidelines.

Any planting incorporated into the landscaping post-construction is recommended to comprise only native species. These should include flowering herbs, creeping flowering species and hedges to offer valuable habitat for pollinating invertebrates.

6. Conclusion

The species-poor grassland habitat within the site offers low ecological value for herptiles, breeding birds, bats or mammals and the works will impact biodiversity at site level only. The nature of the works will not result in significant habitat loss. By implementing the enhancements listed in Section 5, the site can be enhanced for biodiversity as part of the proposed works.

No further surveys are required.

If any protected species are found during any works undertaken on the site, work should be stopped immediately and an ecologist must be contacted for advice.

APPENDIX 1 – Legislation and Best Practice

- **The Conservation of Habitats and Species Regulations 2017**

These regulations, referred hereafter as "the Habitats Regulations", represent the primary method by which Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora (the "Habitats Directive") is transposed for England and Wales and their territorial seas. The Habitats Directive, in conjunction with the Birds Directive (Council Directive 2009/147/EEC) forms the basis for implementation of Europe's nature conservation policy through both habitat and species level protection. The Habitats Directive requires the

designation of strictly protected European sites known as Special Areas of Conservation (SACs). Together with the Special Protection Areas (SPAs) established by the Birds Directive, these collectively form the Natura 2000 Network of protected sites. The Habitats Directive also requires the strict protection of animals and plants of Community Interest listed under Annex IV. Habitat types requiring strict protection as SACs are listed under Annex I. The conservation of animals and plants listed under Annex II requires the designation of SACs. The Habitats Regulations require that public bodies must exercise their nature conservation responsibilities to ensure compliance with the Habitats Directive. These regulations also require the conservation of natural habitats and habitats of species through the selection, designation and notification of marine and terrestrial 'European Sites' to be afforded protection under the Habitats Directive. The habitats and species of European Importance are listed under Annexes I and II of the Habitats Directive. The regulations also contain provision for the appropriate management of these European Sites including the control of damaging operations, special nature conservation orders and restoration orders, for example. The Habitats Regulations afford strict protection to European Protected Species of animals under Schedule 2 and plants under Schedule 5. Offences (subject to certain exceptions) include the deliberate capture, killing, disturbance or trade in these animals. Similarly plants listed under Schedule 5 are protected (subject to exceptions) from picking, collection, cutting, destruction or trade.

- The Wildlife and Countryside Act 1981 (as amended)

The Wildlife and Countryside Act 1981 (as amended) (WaCA) is still a leading mechanism for the legislative protection of wildlife and national parks across the United Kingdom. The WaCA draws on elements of pre-existing legislation and supports the Habitats Regulations in implementing the Bern Convention (1979) and Directive 2009/147/EC on the conservation of wild birds. Schedules within the WaCA provide a list of protected species and habitats, in addition to prohibited actions. It also contains measures for controlling invasive non-native species and amendments to a number of laws. Most notably within the scope of this report are Schedule 9 of the WaCA which lists non-native species that are already established in the wild and continue to pose a conservation threat to native biodiversity and habitats and stipulates that further releases should be regulated. Schedule 9 also includes some native species (for example, Barn Owl (*Tyto alba)*) in order to provide a level of control to ensure that releases, in

particular re-introduction programmes, are carried out in an appropriate manner and biodiversity is properly safeguarded; and Schedule 14, which prohibits the introduction into the wild of any animal of a kind which is not ordinarily resident in, and is not a regular visitor to, Great Britain in a wild state, or any species of animal or plant listed in Schedule 9 of the WaCA.

- The Natural Environment and Rural Communities (NERC) Act 2006

The Natural Environment and Rural Communities Act imposes a Biodiversity Duty (S.40) on all public bodies to conserve biodiversity at both species and habitat levels (S40);
"Every public authority must, in exercising its functions, have regard, so far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity."
Section 41 of the Act requires the publication of a list of
"living organisms and types of habitat which in the Secretary of State's opinion are of principal importance for the purpose of conserving biodiversity."
The list generated under Section 41 of the Act contains a number of types of habitats and species of animal and plant that have the potential to be affected by development projects of a range of sizes and impacts including lowland deciduous woodland, floodplains and calcareous grassland habitats.
The Act also establishes Natural England as the independent body to:
"ensure that the natural environment is conserved, enhanced and managed for the benefit of present and future generations, thereby contributing to sustainable development".
943 species and 56 habitats of principal importance are included on the S41 list as guidance for public bodies on decisions that affectbiodiversity.

- The Hedgerow Regulations 1997

On 1 June 1997, the Hedgerow Regulations came into force under section 97 of the Environment Act 1995 to address the dramatic decline in UK hedgerows. The regulations protect important hedgerows by limiting removal through a system of notification via local planning authorities. The regulations are aimed at countryside hedgerows in England and Wales;
Section 3.6: *"on or adjoining, common land, village greens, Site of Special Scientific Interest (which include National Nature Reserves, Special Protection Areas under the Birds Directive*

and Special Areas of Conservation under the Habitats Directive), Local Nature Reserves, or land used for agriculture, forestry or the breeding or keeping of horses, ponies or donkeys"

Written permission is required from the local planning authority before the removal of any hedgerow over 20 metres and more than 30 years old. Hedgerows less than 20 metres long may also be considered if they form part of a continuous network of hedges.
The LPA will then either issue a Hedgerow Retention or Hedgerow Removal Notice within 42 days depending on whether they define the hedgerow as important
or not based on the following criteria:
• "They have been in existence 30 years or more; and"
• "They satisfy at least one of the criteria set out in Part II of Schedule 1 of the Regulations."
Exemptions to the Regulations fall into three categories:
• "small scale works;"
• "works approved under other procedures which ensure careful assessment and consideration of the impact on the local environment; and"
• "works authorised under other legislation which justify the removal of a hedgerow without first establishing its importance."

It is an offence to remove a hedgerow subject to a retention notice, or to remove a hedgerow protected under the Hedgerow Regulations without first obtaining the required removal notice.

Updated regulations as part of the Hedgerow Regulations due in 2024 regulations will include a two metre 'buffer strip' from the centre of hedgerows with no cultivation or application of pesticides or fertilisers, and a hedge cutting ban between 1 March and 31 August to protect nesting birds. These updates are also to include over 90,000km of hedgerows being managed through 16,000 agreements in the government's Countryside Stewardship and Sustainable Farming Incentive schemes, and more than 13,000km of hedgerows created or restored using Countryside Stewardship grants.

- The UK Post-2010 Biodiversity Framework

The UK Post-2010 Biodiversity Framework was published on 17 July 2012. It was produced by JNCC and Defra, on behalf of the Four Countries' Biodiversity Group (4CBG), through which the environment departments of all four governments in the UK work together. It covers the period from 2011 to 2020, and was developed in response to two main drivers: the Convention on Biological Diversity's (CBD's) Strategic Plan for Biodiversity 2011-2020 and its five strategic goals and 20 'Aichi Targets', published in October 2010; and the EU Biodiversity Strategy (EUBS), released in May 2011. The framework shows how the work of the four UK countries joins up with work at a UK level to achieve the 'Aichi Targets' and the aims of the EU Biodiversity Strategy. It identifies the activities required to complement the country biodiversity strategies, and where work in the country strategies contributes to international obligations. In total, 23 areas of work were identified where all the countries agreed that they wanted to contribute to, and benefit from, a continued UK focus.
The development of the framework reflects a revised direction for nature conservation, towards an approach which aims to consider the management of the environment as a whole, and to acknowledge and take into account the value of nature in decision-making. The framework sets out the common purpose and shared priorities of the UK and the four countries, and, as such, is a hugely important document, which is to be owned, governed, and implemented by the four countries.

- National Planning Policy Framework (NPPF)

This framework acts as guidance for planning authorities (LPAs) in England to form Local Plan policies in favour of sustainable development as part of the government's reforms to increase the accessibility of the planning system and promote long term sustainable growth.

The framework states that "planning policies and decisions should contribute to and enhance the local environment" (paragraph 170).
Chapter 15 of the framework focusses on habitats and biodiversity. Specifically, paragraph 175 states:
"...when determining planning applications, local planning authorities should apply the following principles:
• if significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last

resort, compensated for, then planning permission should be refused"
• development on land within or outside a Site of Special Scientific Interest, and which is likely to have an adverse effect on it (either individually or in combination with other developments) should not normally be permitted. The only exception is where the benefits of the developmentin the location proposed clearly outweigh both its likely impact on the features of the site that make it of special scientific interest, and any broader impacts on the national network of Sites of Scientific Interest (SSSI);
• development proposals whose primary objective is to conserve or enhance biodiversity should be supported;
• opportunities to incorporate biodiversity improvements in and around developments should be encouraged;
• development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons and a suitable compensation strategy exists"

The NPPF also states section 185 in regard to planning applications:
"To protect and enhance biodiversity and geodiversity, plans should:
a) Identify, map and safeguard components of local wildlife-rich habitats and wider ecological networks, including the hierarchy of international, national and locally designated sites of importance for biodiversity; wildlife corridors and stepping stones that connect them; and areas identified by national and local partnerships for habitat management, enhancement, restoration or creation; and
b) promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species; and identify and pursue opportunities for securing measurable net gains for biodiversity."

- Circular 06/2005: Biodiversity and Geological Conservation

The Circular 06/2005 complements the NPPF by advising on how the law relates to planning and nature conservation in England, with particular reference to designated sites and protected species;
"It is essential that the presence or otherwise of protected species, and the extent that they may be affected by the proposed development, is established before the planning permission

is granted, otherwise all relevant material considerations may not have been addressed in making the decision" (Paragraph 99).

However;

"developers should not be required to undertake surveys for protected species unless there is a reasonable likelihood of the species being present and affected by the development."

Part IV also reminds LPAs and developers that licences and mitigation measures may be required in addition to planning permissions if protected species are to be affected by the development

"The breach of protected species legislation can often give rise to a criminal offence" (Paragraph 101).

- Bats

All British bats are "European Protected Species" (EPS) and listed on Annex II and Annex IV of the EC Habitats Directive. The Directive is transposed into UK law through the Conservation of Habitats and Species Regulations 2017. The following actions affecting bats are prohibited under the legislation:

• deliberate capture, injury or killing of a bat;

• deliberate disturbance of a bat and in particular disturbance which is likely to impair their ability:

- to survive, to breed or reproduce, or to rear or nurture their young, or
- in the case of animals of a hibernating or migratory species, to hibernate or migrate;
- or to affect significantly the local distribution or abundance of the species to which they belong.
- damage or destruction of a breeding site or resting place;
- possessing, controlling transporting, selling or exchanging, or offering for sale or exchange any bat or any part of a bat or anything derived from one.
-

Bats are also afforded protection from intentional or reckless 'disturbance' by the Wildlife and Countryside Act 1981 (as amended). The deliberate or reckless obstruction of access to a structure or place used by bats for shelter and protection is also an offence under the Act.

- Birds

All wild birds in the UK are afforded protection under the Wildlife and Countryside Act 1981 (as amended). This protection includes killing, injuring or taking wild birds as well as taking, damaging or destroying bird nests in use or being built, and taking or destroying eggs. Birds listed under Schedule 1 of the Act are afforded additional protection from disturbance during nesting and offences relating to these birds are subject to special penalties. The nest sites of birds listed under Schedule ZA1 of the act are afforded strict, year-round protection even when the nests are not in active use.

- Reptiles

All species of native reptiles are protected against killing or injury under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended). The Sand Lizard *(Lacerta agilis)* and Smooth Snake *(Coronella austriaca)* are further protected under The Conservation of Habitats and Species Regulations 2017 and The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 against capture or disturbance and the places they use for breeding, resting, shelter and protection are protected from being damaged or destroyed.

- Great Crested Newts

The Great Crested Newt and its habitat are protected under the Wildlife and Countryside Act 1981 (as amended) and The Conservation of Habitats and Species Regulations 2017 and The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019. This legislation makes it an offence to deliberately kill, injure or capture a Great Crested Newt; deliberately disturb a Great Crested Newt; damage, destroy or obstruct access to a structure used for shelter or protection by a Great Crested Newt; or possess or transport a Great Crested Newt. Great Crested Newts are also afforded protection from intentional or reckless 'disturbance' by the Wildlife and Countryside Act 1981 (as amended). The deliberate or reckless obstruction of access to a structure or place used by great crested newts for shelter and protection is also an offence under the Act. This applies to both aquatic and terrestrial habitat

- Badgers

Badgers and their setts are protected under the Protection of Badgers Act 1992 which makes it an offence to kill, injure or possess a badger; interfere with, damage or destroy a Badger sett including obstructing access to a badger sett; cruelly treat or harm a Badger; or disturb a Badger in a sett.

- Otters

Otters *(Lutra lutra)* and their resting places are protected under the Wildlife and Countryside Act 1981 (as amended) and the The Conservation of Habitats and Species Regulations 2017 and The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019. This legislation makes it an offence to deliberately kill, injure or capture an Otter; deliberately disturb an Otter in their breeding or resting places; damage, destroy or obstruct access to their resting or breeding places.

- Water Voles

Water Voles *(Arvicola amphibius)* are protected under the Wildlife and Countryside Act 1981 (as amended) from killing or taking by certain prohibited methods. Their breeding and resting places are fully protected from damage, destruction or obstruction; it is also an offence to disturb them in these places.

- Common Dormouse

Common dormice are protected under both The Conservation of Habitats and Species Regulations 2017 and The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 and the Wildlife and Countryside Act 1981 (as amended). Dormice and their breeding sites and resting places are fully protected. Without a licence it is an offence for anyone to deliberately disturb, capture, injure or kill them. It is also an offence to damage or destroy their breeding or resting places, to disturb or obstruct access to any place used by them for shelter. It is also an offence to possess or sell a wild Dormouse.

- White-clawed crayfish

White-clawed Crayfish *(Austropotamobius pallipes)* are protected under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) protecting them from harm, disturbance and

capture without an appropriate licence. It is illegal to buy or sell White-clawed Crayfish whether alive or dead.

- Invertebrates

Three UK invertebrate species are protected under The Conservation of Habitats and Species Regulations 2017 and The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019; the Large Blue butterfly *(Phengaris arion)*, Fisher's Estuarine moth *(Gortyna borelii)* and Little Ramshorn Whirlpool snail *(Anisus vorticulus)*. It is an offence for anyone to deliberately disturb, capture, injure or kill them. It is also an offence to damage or destroy their breeding or resting places, to disturb or obstruct access to any place used by them for shelter. It is also an offence to possess or sell these species. Approximately 400 further invertebrate species are listed as 'Species of Principle Importance under Section 41 of the NERC Act.

- Invasive Plant Species

It is prohibited to plant or otherwise cause to grow in the wild any species listed on Schedule 9 of the Wildlife and Countryside Act 1981 (as amended). The Environmental Protection Act 1990 also classifies certain invasive plants as controlled waste which must be disposed of safely at an appropriately licensed landfill site, in particular Japanese Knotweed *(Reynoutria japonica)*. Under section 57 of the Anti-social Behaviour, Crime and Policing Act 2014, if an individual or an organisation fails to control an invasive plant species which is having a detrimental effect on the quality of life of those in the locality then a notice can be issued after a mandatory written warning has been served. Breach of this notice, without reasonable excuse, would be a criminal offence, subject to fixed penalty notice (a penalty of £100) or prosecution. On summary conviction an individual could be liable to a level 4 fine and an organisation could be liable to a fine not exceeding £20,000.

- Definitions of Statutory and Non-Statutory Sites

Name	Statutory/Non-statutory	Definition

SAC – Special Area of Conservation	Statutory	Strictly protected sites designated under the EC Habitats Directive, that will make a significant contribution to conserving habitats or species identified in Annexe I and II of the Directive (as amended).
SPA – Special Protection Area	Statutory	Strictly protected sites classified in accordance with Article 4 of the EC Birds Directive. They are classified for rare and vulnerable birds (as listed on Annex I of the Directive).
SSSI – Site of Special Scientific Interest	Statutory	SSSIs provide statutory protection for the best examples of the UK's flora, fauna, or geological or physiographical features.
NNR – National Nature Reserve	Statutory	NNRs contain examples of some of the most important natural and semi-natural terrestrial and coastal ecosystems in Great Britain. They are managed to conserve their habitats or to provide opportunities for scientific study.
LNR – Local Nature Reserve	Statutory	LNRs are declared and managed for nature conservation, and provide opportunities for research and education, or simply enjoying and having contact with nature.
Ramsar – Ramsar Site	Statutory	Ramsar sites are wetlands of international importance designated under the Ramsar Convention.
LWS – Local Wildlife Site SINC – Site of Importance for Nature Conservation	Non-statutory	Areas of land with significant wildlife value for the local area.
CWS – County Wildlife Site	Non-statutory	Areas of land with significant wildlife value for the county

APPENDIX 2 - Reducing Impacts of Artificial Light

External lighting has been proven to have a negative impact on foraging and commuting bats, as well as impact other nocturnal species such as invertebrates, birds and mammals such as

Badger and Hedgehog. The Bat Conservation Trust has guidelines[3] which should be referred to when designing lighting schemes for proposed developments. In areas where the introduction of lighting will have a significant impact on the surrounding environment such as rural locations it is recommended that an ecologist is consulted prior to a lighting scheme being designed. The key measures recommended by the guidelines are as follows:

- Avoid unnecessary exterior lighting where possible
- Maintain a balance between appropriate lighting levels and the impact that exterior lighting will have on wildlife
- Comply with existing legislative buffers and avoid lighting key habitats and features altogether.
- Avoid lighting key habitats and features altogether
- Comply with guidance on illuminance levels and buffers

It may be necessary to demonstrate that the proposed lighting will comply with any agreed light-limitation or screening measures set as a result of your ecologist's recommendations and evaluation. This is especially likely to be requested if planning permission is required. Baseline, pre-development lighting surveys may be useful where existing on or off-site lighting is suspected to be acting on key habitats and features and so may prevent the agreed or modelled illuminance limits being achieved. As a condition of planning, post- completion lighting surveys by a suitably qualified person should be undertaken and a report produced for the local planning authority to confirm compliance. Any form of non-compliance must be clearly reported, and remedial measures outlined. Ongoing monitoring may be necessary, especially for systems with automated lighting/dimming or physical screening solutions.

The Bat Conservation Trust recommends the following specifications for lighting on developments to prevent disturbance:

- Lighting spectra: peak wavelength >550nm

[3] Bat Conservation Trust and Institute for Lighting Professionals (2023) Guidance note 8. Bats and Artificial Lighting. Available online

- Colour temperature: <2700K (warm)
- Reduction in light intensity
- Minimal UV emitted
- Upward light ratio of 0% and good optical control

APPENDIX 3 – Conditions of use

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