

Preliminary Ecological Appraisal

Surrey Close



Client: Sub Zero Homes

Report Reference:
Wildscapes_P2047_01_V1_PEAR

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Quality Assurance and Project Details

PROJECT NUMBER	P2047
CLIENT	Sub Zero Homes
PROJECT NAME	Surrey Close, Barnsley
SITE LOCATION	Surrey Close, Barnsley, S70 4NB (Grid reference: SE 34564 05328)
REFERENCE	Wildscapes_P2047_PEAR_01_V1

Field Investigations and Data

Where field investigations have been carried out, these have been restricted to a level of detail required to achieve the stated objectives of the work. Where any data supplied by the client or from other sources have been used it has been assumed that the information is correct. No responsibility can be accepted by Wildscapes CIC and Sheffield and Rotherham Wildlife Trust for inaccuracies in the data supplied by any other party.

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Summary

- i. Wildscapes were commissioned by Sub Zero Homes on behalf of their client to undertake a Preliminary Ecological Appraisal (PEA) of the site as a whole and to assess the potential ecological constraints to the proposed construction of two new dwellings and associated landscaping (this is referred to as the Scheme going forward).
- ii. The land within the Scheme Boundary is hereafter referred to, as the Site is located at Surrey Close, Barnsley, S70 4NB (Grid reference: SE 34564 05328). The Site is approximately 0.1 ha in size and is comprised of dense bramble scrub, broadleaved scattered trees and semi-improved neutral grassland.
- iii. The report makes recommendations for biodiversity where possible. It will also provide suggestions for ecological enhancement opportunities where relevant.
- iv. Below is a summary of the ecological features on Site, the potential they have to affect the scheme and finally whether any further surveys or mitigation is required.

Table 1 Summary of Features and Impacts

ECOLOGICAL FEATURE	THE POTENTIAL FOR THE FEATURE TO BE AFFECTED BY THE SCHEME	ARE FURTHER SURVEYS, ASSESSMENT OR MITIGATION REQUIRED?
Designated sites	<p>The Site lies within 2 km of Dearne Valley Wetlands SSSI. Although the Site lies within the impact risk zone the proposed works do not trigger an assessment.</p> <p>The Site also lies within 2 km of three non-statutory designated sites, upon which no impacts are anticipated.</p>	No further surveys required.
Habitats	<p>No protected habitats are present on Site. Dense scrub and semi-improved grassland will be lost to the development.</p> <p>Retain root protection zones of semi-mature trees to be retained.</p>	A Biodiversity Net Gain Assessment should be undertaken to determine the percentage change in habitat units.
Great crested newts	There are no ponds on Site or within 250 m of the boundary. Suitable terrestrial habitat will be lost during the construction and post-construction phase.	Suitable terrestrial habitat for use as hibernacula should be checked prior to removal/destruction.
Bats	All trees on Site had negligible potential to support roosting bat.	No further surveys required.

Otter and water vole	No suitable habitat is present on Site to support otter and water vole. There are no waterbodies within 500m and the site is isolated within an urban setting with low habitat connectivity.	No further surveys required.
White-clawed crayfish	No suitable habitat is present on Site to support white-clawed crayfish. There are no waterbodies within 500m and the site is isolated within an urban setting with low habitat connectivity.	No further surveys required.
Reptiles	Desk study returned one record of common lizard within 2 km. Dense scrub and tussocky grassland provides suitable habitat on Site for reptiles. However, the urban landscape creates barriers to dispersal.	Construction phase should follow a precautionary working method statement for the removal of scrub and grassland to prevent causing an injury and offence.
Birds	The trees and scrub on Site provide suitable nesting habitat.	The removal of any scrub, trees or hedgerow during nesting season (April – September) should undergo a nesting bird check by an ecologist. Alternatively, works can take place outside of nesting bird season.
Hazel dormouse	Site is outside of known distribution range.	N/A
Badgers	No signs of badgers were present on Site and no records were returned during the desk study. Suitable habitat exists for foraging and sett creation in the grassland and scrub.	An updated walkover should be undertaken if works do not commence within 6 months.
Other notable species	Records were returned for other notable species and suitable habitat is present on Site for Common Toad, European Hedgehog and Brown Hare.	Log piles, leaf piles etc should be checked by hand prior to destruction/removal.
Fish	No suitable habitat on Site.	N/A

Aquatic Invertebrates	No suitable habitat on Site.	N/A
Terrestrial invertebrates	Data search returned records of four LBAP species within 2 km of the Site. The majority of the habitat on Site is anticipated to be lost but is widespread in the local area.	No further surveys required.

- v. To minimise the loss of available habitat for birds and invertebrates landscaping plans should include native scrub planting. Integrated bird and bat boxes could be incorporated into the building design to provide additional nesting and roosting opportunities on Site. If fencing is to be installed barriers to movement should be minimised by installing gaps to allow for the movement of notable amphibians and small mammals.

1. Introduction

1.1 Purpose and Scope

- i. Wildscapes were commissioned by Sub Zero Homes to carry out a Preliminary Ecological Appraisal (PEA) at Surrey Close, Barnsley, S70 4NB (Grid reference: SE 34564 05328) to assess the potential ecological constraints to the proposed construction of two new dwellings (hereafter titled the Scheme). The land within the red line boundary within the Scheme is hereafter titled 'the Site'. The Site was dominated by semi-improved neutral grassland, dense patches of bramble scrub and a range of broadleaved trees which varied in age.
- ii. Current good practice guidelines¹ are adhered to as part of the technical information, which is supplied by the client. The results of the PEA are presented in this report and adhere to and address the relevant wildlife legislation and planning policies (Appendix 1).
- iii. The scheme is split into the development of two separate dwellings. The proposed northerly dwelling is a bungalow with an access road to the west of an existing property on Surrey Close. The second proposed property lies to the west of the new access road and is a 1.5 dormer with a driveway.
- iv. This PEA contains information from both the desk-based assessment, the Phase 1 Habitat Survey and a preliminary protected species assessment. The desk study was undertaken on 14/11/2023 to obtain records of statutory and non-statutory designated sites², notable habitats and both protected and notable species³ 2km from the Site boundary. The ecological walkover survey of accessible land within the Site boundary was undertaken on 02/11/2023.
- v. The survey area is based on the client's plans and the desk study data and applicable legislation. It is shown in the Site Location Plan (Figure 1) and the Phase 1 Habitat plan (Figure 2).
- vi. The assessment for this report is a preliminary assessment until further ecological surveys and / or ecological impact assessment can be undertaken. These results may then need to be fed in to a planning application or in to 'Ecological Impact Assessment' once proposals are finalised and the further surveys have been completed.

1.2 Zone of Influence

- vii. The ecological zone of influence (ZOI) is shown as the extent of any potential impacts of the proposed development. It is determined by individual species ecological requirements as per best practice guidelines.
- viii. For bats, it varies as they are a very mobile species and can be up to 5km from a site, which has high quality habitat as per BCT guidelines⁴.
- ix. For badgers, the ZOI is between 30-50m from the Site boundary as this is the distance which badgers setts can be damaged or disturbed by heavy machinery.

¹ CIEEM (2017). Guidelines for Preliminary Ecological Appraisal, 2nd edition. Chartered Institute of Ecology and Environmental Management, Winchester.

² Notable habitats are those which are principal habitats under Section 41 of the Natural Environment and Rural Communities Act 2006, those which are under the Barnsley Biodiversity Action Plan (BAP) and hedgerows which are 'important' under Hedgerow Regulations Act 1997.

³ Notable species are those which are principal species under Section 41 of the Natural Environment and Rural Communities Act 2006, those which are listed in the International Union for Conservation of Nature Red Data Book and any species which is listed under the LBAP.

⁴ Collins, J. (ed.) (2016) Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edn). The Bat Conservation Trust, London.

- x. For designated sites, the ZOI can be >10km from the Site Boundary and this is referred to as the Impact Risk Zone (IRZ). If a site is within an IRZ, it can trigger the need for an Environmental Impact Assessment (EIA) or for a Habitat Regulations Assessment (HRA).
- xi. For great crested newts (GCN), the ZOI can be up to 500m from the Site boundary (the distance Natural England would consider for a GCN licence). For this site, the ZOI is only considered for waterbodies up to 250m of the site boundary. This is due to the site being considered 'suboptimal' due to the site being enclosed by residential properties and that the site is small in scale with the impacts only being localised. Therefore, it is considered that 500mm from the site boundary is not required and that surveys of ponds within 250m is considered to be an adequate survey effort.

1.3 Site Context and Location

- xii. The Site is located within a housing estate in Worsbrough Common and surrounded by residential properties and their associated gardens (Grid reference: SE 34564 05328). The Site itself contained unmanaged neutral grassland, large areas of dense bramble scrub and a range of broadleaved trees that vary in age. The surrounding landscape is a mix of residential properties, local parks, arable fields and local nature reserves. Worsborough Country Park Local Nature Reserve (LNR) is approximately 1.7km south and Dearne Valley Park (LNR) is approximately 1.7km northeast. The closest green space to the site is Locke Park approximately 300m west. Barnsley centre is approximately 850m north of Worsbrough Common with arable land dominating to the west.

Figure 1 Site Location Plan Surrey Close Barnsley



2. Methodology

2.1 Desk study

- i. Ecological record information for the Site and surrounding area (up to two kilometres) was requested from the organisations included within Table 2.

Table 2 Organisations consulted about biological records

DATE CONSULTED	ORGANISATION	RECORDS REQUESTED	SEARCH RADIUS FROM BOUNDARY
14/11/2023	Sheffield Biological Records Centre	Non-Statutory Site Designation	2km
		Protected/Principal Species Records	2km
14/11/2023	(www.magic.gov.uk) ⁵	Statutory Site Designations (Including Impact Risk Zones)	20km
		Habitats of Principal Importance (NERC Act, 2006)	1km
		European Protected Species Licences	5km

- ii. In addition to the above online mapping sources, Google Earth Pro and Grid Reference Finder were used to view both satellite imagery and maps of the site and surrounding land.

2.2 Preliminary Ecological Appraisal

- iii. The PEA is based on the Chartered Institute of Ecology and Environmental Management (CIEEM) best practice guidelines (CIEEM, 2017). The assessment identifies the following features: habitats, species, sites and other ecological features especially the ones which have more protection and are of a higher value such as those with legal protection, statutory or local such as and those on the Red Data Lists or Local Biodiversity Action Plan. This assessment will then provide recommendations for any further surveys to confirm presence / likely absence of protected species.
- iv. The constraints identified will be reviewed based on the client's plans, the recommendations from this and have considered the following: avoidance, mitigation, compensation and enhancement.

2.3 Phase 1 Habitat Survey

- v. A phase 1 was carried out on the Site to identify habitats present. All habitats present within the Site boundary were noted and mapped following the standard Phase 1 Habitat Survey

⁵ Multi-Agency Geographic Information for the Countryside Interactive GIS Map

Methodology (JNCC, 2016) which looks at the identification of individual plant species and identifying the habitat type.

- vi. Stace (Stace, 2010) was used for vascular plant species and uses the DAFOR scale to determine abundance in the field to determine the dominant plants within the habitats (D = dominant, A = abundance, F = frequent, O = occasional and R = rare).

2.4 Legally protected or Priority species

- vi. The Site was assessed for its suitability to support legally protected or priority species, which would be affected by the proposed development: badger, invertebrates, bats, reptiles, hazel dormouse, otter, water vole, birds, great crested newts, protected or notable plants, other notable species. This includes invasive non-native plant species e.g. Himalayan balsam (*Impatiens glandulifera*) and giant hogweed (*Heracleum mantegassianum*).

2.5 Constraints

- vii. The survey was undertaken outside of the main flowering season so additional floristic species may be present on site.

2.6 Lifespan of data

- viii. The survey results contained within this report are considered accurate for 18 months from the date of the survey, assuming no considerable changes to the Site conditions or the presence of mobile species e.g. badgers, bats and otters.

3. Results

3.1 Surveyor competency and Survey Conditions

- i. The initial Phase 1 survey was carried out by Shannan Poyner Bsc Hons QCIEEM, who has been a professional ecologist for 3 years and is appropriately experienced and qualified to undertake this survey. Additionally, they hold Class 1 licence for bats (2022-10759-CL17-BAT).
- ii. The survey was carried out in suitable weather conditions. See Table 3.

Table 3 Survey weather conditions

SURVEY	DATE	TEMPERATURE (°C)	WIND (BEAUFORT SCALE)	CLOUD COVER (OKTAS SCALE)	PRECIPITATION
PEA	02/11/2023	10 °C	2	6	Light rain

3.2 Desktop study

- iii. A total of three statutory designated sites were recorded within the search area, these are listed in Table 4 within 2km of the Site. The Site is located within the IRZ of the statutory designated sites.

Table 4 Statutory sites within 2 km

NAME	DESIGNATION	LOCATION	AREA (HA)	BRIEF DESCRIPTION
Dearne Valley Wetlands	Site of Special Scientific Interest	2 km south	650	Designated for diverse assemblages of breeding birds of lowland damp grasslands, scrub, open water and fen.
Dearne Valley Park	Local Nature Reserve	1.7 km northeast	49	Acidic oak woodland with a mosaic of wetland habitats.
Worsbrough Country Park	Local Nature Reserve	1.7 km south	62.5	A reservoir with surrounding willow carr <i>Salix sp.</i> , reedbed, grassland and woodland which supports a number of waterfowl.

- iv. The Site lies within 5km of one SSSI: Dearne Valley Wetlands.
- v. The proposals are not of a type that are included within the Impact Risk Zones (IRZ) for the designated sites listed above. These are listed below:
 - Pipelines and underground cables, pylons and overhead cables.
 - Planning applications for quarries.
 - Large non-residential developments outside existing settlements/urban areas where footprint exceeds 1ha.

- Any residential development of 100 or more houses outside existing settlements/urban areas.
 - Any industrial/agricultural development that could cause air pollution.
 - General combustion processes >20MW energy input.
 - Landfill.
 - Any composting proposal with more than 75000 tonnes maximum annual operational throughput.
 - Any discharge of water or liquid waste of more than 5m³/day.
 - Large infrastructure such as warehousing / industry where net additional gross internal floorspace is > 1,000m².
- vi. Records of European Protected Species Licences (EPSL) were found within 5km of the search area. This includes:
- 11 records of GCN licences were returned. The closest licences was 3.1km southwest. The most recent record was 2019.
 - Seven records of bat licences were returned. This includes the following species common pipistrelle *Pipistrellus pipistrellus*, soprano pipistrelle *Pipistrellus pygmaeus*, natterer's bat *Myotis nattereri* and brown long-eared bat *Plecotus auritus*. The closest licence was 1.35 km north (2019-41299-EPS-MIT). The most recent record was from 2020.
- vii. There are three non-statutory designated sites also within the search area; these are listed in Table 5.

Table 5 Non-statutory designated sites

NAME	DESIGNATION	LOCATION	AREA (HA)	BRIEF DESCRIPTION
Kendal Green Scrub	LWS	1.45 km southwest	2.38 ha	Area of land adjacent to disused railway embankment comprised of species rich modified neutral grassland. With marshy grassland to the north and a mature tree line on the southern boundary.
Worsbrough Reservoir	LWS	1.7 km south	37.07 ha	The reservoir forms a large part of the surrounding LNR. Other dominating habitat is semi-natural broadleaved woodland. The site supports a wide range of breeding birds.
Cliffe Wood	LWS	1.9 km northeast	32.27 ha	Located within Dearne Valley Park LNR. The majority of the woodland is dominated by oak <i>Quercus sp.</i> and birch <i>Betula sp.</i> , with smaller amounts of ash <i>Fraxinus excelsior</i> , hawthorn <i>Crataegus monogyna</i> , holly

				<i>Ilex aquifolium</i> , hazel <i>Corylus avellana</i> and field maple <i>Acer campestre</i> .
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- viii. There are three Habitats of Principal Importance under Section 41 of the NERC Act, 2006 that are located within 1km of the Site. These are shown in Table 6.

Table 6 Habitats of Principal Importance within 1 km

HABITAT TYPE	QUANTITY	DIRECTION FROM THE SITE (NEAREST HABITAT)	DISTANCE TO SITE (NEAREST HABITAT)
Deciduous Woodland	12.3 ha	West	300 m
Traditional Orchard	0.08 ha	Southeast	450 m
Wood Pasture and Parkland	14 ha	West	350 m

- ix. Table 7 below shows the protected species records from Sheffield Biological Records Centre. The table provides a summary of the records, which were considered the most relevant to this Site and the proposed works.

Table 7 Summary of notable and protected species records

COMMON NAME	SCIENTIFIC NAME	RECORDS (NUMBER, DISTANCE AND DIRECTION)	CONSERVATION STATUS
Amphibians			
Common Frog	<i>Rana temporaria</i>	Six, 1.3km south	Wildlife and Countryside Act 1981 (Sch 5)
Common Toad	<i>Bufo Bufo</i>	Two, 2km south	BAP Species and Wildlife and Countryside Act 1981 Sch 9 (5)
Great Crested Newt	<i>Triturus cristatus</i>	Three, 0.7km southwest	BAP Species, Wildlife and Countryside Act 1981 Sch 9 (5), European Protected Species
Bats			
Common Pipistrelle	<i>Pipistrellus pipistrellus</i>	Four, 1.3km south	Wildlife and Countryside Act 1981, European Protected Species
Daubenton's Bat	<i>Myotis daubentoni</i>	Two, 2km south	Wildlife and Countryside Act 1981, European Protected Species
Noctule Bat	<i>Nyctalus noctula</i>	One, 1.4km north	Wildlife and Countryside Act 1981, European Protected Species

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Soprano Pipistrelle	<i>Pipistrellus pygmaeus</i>	One, north	1.4km	Wildlife and Countryside Act 1981, European Protected Species
Birds				
Black-headed Gull	<i>Chroicocephalus ridibundus</i>	19, 1 km south		BCC Amber listed species
Bullfinch	<i>Pyrrhula pyrrhula</i>	72, south	1.8km	BCC Amber listed species
Common Sandpiper	<i>Actitis hypoleucos</i>	Two, south	1.8km	BCC Amber listed species
Common Scoter	<i>Melanitta nigra</i>	Two, south	1.8km	BCC Red listed species
Common Tern	<i>Sterna hirundo</i>	28, south	1.8km	BCC Amber listed species
Curlew	<i>Numenius arquata</i>	Four, south	1.8km	BCC Red listed species
Dipper	<i>Cinclus cinclus</i>	Two, south	1.8km	BCC Amber listed species
Dunlin	<i>Calidris alpina</i>	Two, south	1.8km	BCC Red listed species
Dunnock	<i>Prunella modularis</i>	29, south	1.8km	BCC Amber listed species
Fieldfare	<i>Turdus pilaris</i>	Five, south	1.6km	BCC Red listed species
Gadwall	<i>Anas strepera</i>	Eight, south	1.8km	BCC Amber listed species
Gannet	<i>Morus bassanus</i>	One, south	1.8km	BCC Amber listed species
Goldeneye	<i>Bucephala clangula</i>	14, south	1.8km	BCC Red listed species
Great White Egret	<i>Ardea alba</i>	Two, south	1.8km	BCC Amber listed species
Green Sandpiper	<i>Tringa ochropus</i>	One, south	1.8km	BCC Amber listed species
Greenfinch	<i>Chloris chloris</i>	12, south	1.8km	BCC Red listed species
Grey Wagtail	<i>Motacilla cinerea</i>	42, south	1.8km	BCC Amber listed species

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Greylag Goose	<i>Anser anser</i>	33, south	1.8km	BCC Amber listed species
Herring Gull	<i>Larus argentatus</i>	15, south	1.8km	BCC Red listed species
House Martin	<i>Delichon urbicum</i>	20, south	1.8km	BCC Red listed species
House Sparrow	<i>Passer domesticus</i>	32, south	1.6km	BCC Red listed species
Kestrel	<i>Falco tinnunculus</i>	32, south	1.3km	BCC Amber listed species
Lapwing	<i>Vanellus vanellus</i>	Seven, south	1.8km	BCC Red listed species
Linnet	<i>Linaria cannabina</i>	Four, south	1.7km	BCC Red listed species
Mistle Thrush	<i>Turdus viscivorus</i>	24, south	1.8km	BCC Red listed species
Pintail	<i>Anas acuta</i>	One, south	1.8km	BCC Amber listed species
Pochard	<i>Aythya ferina</i>	16, south	1.8km	BCC Amber listed species
Reed Bunting	<i>Emberiza schoeniclus</i>	23, south	1.8km	BCC Amber listed species
Ring Ouzel	<i>Turdus torquatus</i>	One, southwest	1.6km	BCC Red listed species
Shelduck	<i>Tadorna tadorna</i>	Four, south	1.8km	BCC Amber listed species
Shoveler	<i>Anas clypeata</i>	Ten, south	1.8km	BCC Amber listed species
Smew	<i>Mergus albellus</i>	Two, south	1.8km	BCC Red listed species
Snipe	<i>Gallinago gallinago</i>	Six, south	1.8km	BCC Amber listed species
Song Thrush	<i>Turdus philomelos</i>	68, south	1.8km	BCC Amber listed species
Sparrowhawk	<i>Accipiter nisus</i>	15, south	1.8km	BCC Amber listed species

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Starling	<i>Sturnus vulgaris</i>	16, 1.6km south	BCC Red listed species
Stock Dove	<i>Columba oenas</i>	Two, 1.7km south	BCC Amber listed species
Swift	<i>Apus apus</i>	12, 1.8km south	BCC Red listed species
Teal	<i>Anas crecca</i>	Nine, 1.8km south	BCC Amber listed species
Whitethroat	<i>Sylvia communis</i>	Two, 1.7km southwest	BCC Amber listed species
Whooper Swan	<i>Cygnus cygnus</i>	10, 1.8km southwest	BCC Amber listed species
Wigeon	<i>Anas penelope</i>	Eight, 1.8km southwest	BCC Amber listed species
Willow Tit	<i>Poecile montana</i>	43, 1.8 km northeast	BCC Red listed species
Willow Warbler	<i>Phylloscopus trochilus</i>	17, 1.8 km south	BCC Amber listed species
Woodcock	<i>Scolopax rusticola</i>	Two, 1.7km southwest	BCC Red listed species
Wren	<i>Troglodytes troglodytes</i>	56, 1.7km south	BCC Amber listed species
Yellow Wagtail	<i>Motacilla flava</i>	Four, 1.8km south	BCC Red listed species
Yellowhammer	<i>Emberiza citrinella</i>	Eight, 1.3km south	BCC Red listed species
Fish			
N/A			
Invasive Species			
N/A			
Invertebrates			
Cinnabar	<i>Tyria jacobaeae</i>	Three, 1.1km northeast	BAP species
Dingy Skipper	<i>Erynnis tages</i>	One, 1.4km northeast	BAP species

Latticed Heath	<i>Chiasmia clathrata</i>	Three, 1.8km south	BAP species
Shaded Broad-Bar	<i>Scotopteryx chenopodiata</i>	One, 1.8km southwest	BAP species
Mammals			
Brown Hare	<i>Lepus europaeus</i>	Two, 0.7km south	BAP species
Harvest Mouse	<i>Micromys minutus</i>	14, 1.8km south	BAP species
Hedgehog	<i>Erinaceus europaeus</i>	Three, 1.3km north	BAP species
Otter	<i>Lutra lutra</i>	One, 1.8km south	Wildlife and Countryside Act 1981 and the Conservation of Habitats and Species Regulations 2017
Plants			
English Bluebell	<i>Hyacinthoides non-scripta</i>	20, 1 km south	Wildlife & Countryside Act 1981 Schedule 8
Reptiles			
Common Lizard	<i>Zootoca vivipara</i>	One, 1.5km northeast	Wildlife and Countryside Act 1981

3.3 Wider Landscape and Connectivity

- x. As the Site is surrounded by residential properties there is a lack of direct connectivity to available habitat in the wider landscape. However, access to Locke Park to the west is only 120 m which directly links to arable land and local nature reserves south and west of Barnsley.
- xi. Transient species including, bird, badger, bat and invertebrates have the potential to be using the Site. However, due to roads providing barriers to movement reptile and amphibian species are less likely to be present.

3.4 Phase 1 Habitat Survey

- xii. The habitat descriptions and photos are provided in Table 8 and follow the order of the JNCC (2010) handbook. Figure 1 below shows a phase plan 1 of the Site.

Table 8 Phase 1 Habitat descriptions

JNCC code and habitat	Description	Area (m2)	Ecological importance	Photograph
A.2.1 Dense scrub	<p>Dense scrub dominated by <i>bramble Rubus fruticosus</i> covers multiple areas on the western boundary and encroaches onto the surrounding neutral grassland. Additional occasional species within the largest area of bramble scrub included silver birch <i>Betula pendula</i>, elder <i>Sambucus nigra</i>, sycamore <i>Acer pseudoplatanus</i>, cow parsley <i>Anthriscus sylvestris</i> and common ivy <i>Hedera helix</i>.</p> <p>Dense scrub characterised by a large willow species tree towards the northern boundary contains additional occasional woody species; hazel <i>Corylus avellana</i>, wild cherry <i>Prunus avium</i>, cherry laurel <i>Prunus laurocerasus</i>, hawthorn and sycamore. Adjoining this patch of scrub to the west is a line of hawthorn trees approximately 1.5 - 2 m in height.</p>	18.9	Ecologically significant for a range of fauna. Particularly birds, badger, reptiles and invertebrates.	

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A.3.1 Scattered trees	The eastern boundary is characterised by 2 large ash trees with scattered dogwood and an apple species in between. The largest of the two ash trees is multi-stemmed with the main trunk heavily decayed with exposed heartwood, raised bark and fungi. All of the other stems appeared in good condition with no holes observed from the ground. The ground layer is sparsely vegetated by wood avens, common nettle and bramble with areas of fly tipping.	10	Ecologically significant for a range of fauna. Particularly nesting bird.	
B.2.2 Semi-improved neutral grassland	A large proportion of the site was dominated by tussocky semi-improved neutral grassland with a tall sward height over 30 cm. The dominating grassland species were false-oat grass <i>Arrhenatherum elatius</i> and cocksfoot <i>Dactylis glomerata</i> with occasional meadow species <i>Poa sp.</i> , bent species <i>Agrostis sp.</i> and perennial ryegrass <i>Lolium perenne</i> . Other floristic species included frequent dandelion <i>Taraxacum sp.</i> , occasional creeping buttercup <i>Ranunculus repens</i> , ribwort plantain <i>Plantago lanceolata</i> , broadleaved dock <i>Rumex obtusifolius</i> , vetch species <i>Vicia sp.</i> and rare ragwort <i>Jacobaea vulgaris</i> and geranium species.	13.1	Widespread and common habitat in local area of low ecological importance.	

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C.3.1 Tall ruderal	An area along the western boundary dominated by common nettle.	3.6	Widespread and common habitat in local area of low ecological importance.	
J.1.2 Amenity grassland	A small patch of more regularly managed grassland in the southwest corner along the bottom of Surrey Close. The sward height was approximately 10 cm with a species composition as the wider grassland with more abundant white clover and ribwort plantain and rare timothy.	8.1	Widespread and common habitat in local area of low ecological importance.	

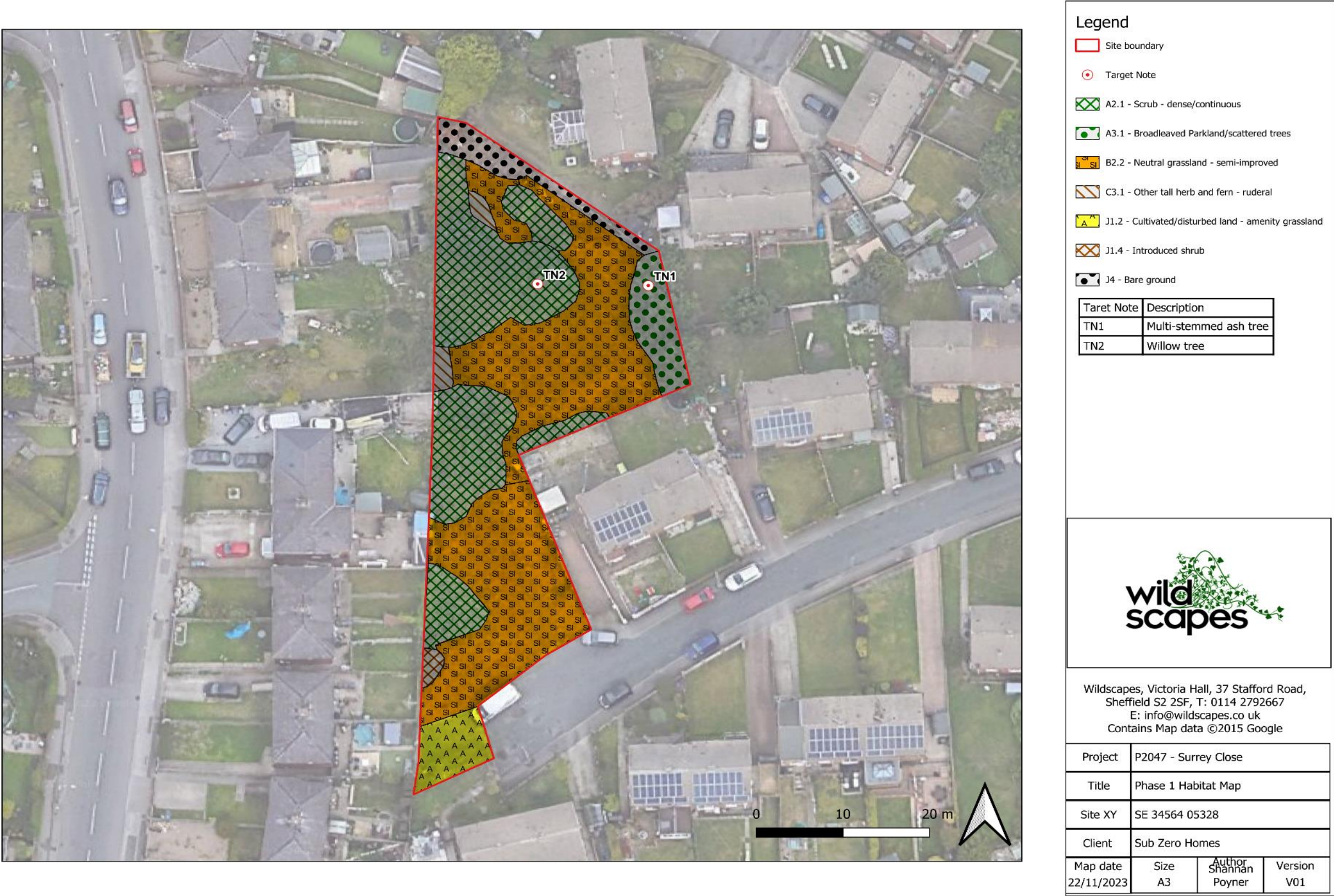
Preliminary Ecological Appraisal – Surrey Close

<p>J.1.4 Introduced shrub</p>	<p>An individual stand of introduced cotoneaster shrub was present on the western boundary.</p>	<p>1.5</p>	<p>Widespread and common habitat that provides foraging resources for birds and invertebrates.</p>	
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J.4 Bare ground	Recently disturbed bare ground along the northern fence line with cut vegetation, domestic waste and building waste.	8.6	Negligible ecological importance.	
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Figure 2: Phase 1 Habitat Plan



3.5 Habitat Assessment

3.5.1 Statutory and Non-Statutory Designated Sites

- xiii. The Site is within 5km of one SSSI, Dearne Valley Wetlands. The proposals are not of a type listed within the Impact Risk Zones for these European and National designated sites.
- xiv. The nearest non-statutory site is Kendall Green Scrub LWS, 1.45km southwest of the Site and is designated for its species rich modified grassland.

3.5.2 Habitats

- xv. The majority of the habitats identified on site were of limited ecological and botanical interest and were of poor species diversity. The habitats onsite have the potential to support nesting and foraging birds, foraging bat, resting and foraging badger and a range of common invertebrate assemblages. Due to the site's encasement by residential properties species with barriers to dispersal such as amphibians and reptiles are less likely to be present.
- xvi. There were no priority and protected plant species observed on site and are either common, widespread or characteristic of the habitats present.

3.5.3 Invasive species

- xvii. There were no invasive species present on Site. Additionally, there were no invasive species records returned within the desk study.

3.6 Priority and protected Species Assessment

3.6.1 Great Crested Newt (GCN)

- xviii. There were no ponds on the site. There are no ponds within 250m of the Site. The closest is 660 m southwest of the site.
- xix. There are no watercourses on the Site and there are no ditches on the site.
- xx. The terrestrial habitats on site suitable for GCN include tussocky neutral grassland, dense and scattered scrub. There are three records of GCN within 2km from the desk study with the nearest being 0.7 km southwest of the Site.

3.6.2 Bats

- xxi. There are eight records of bats identified during the desk study, these included common pipistrelle, soprano pipistrelle, noctule and daubenton's bat. The closest record of which is 1.3 km south of the Site.
- xxii. There are mature and semi-mature trees within the Site boundary and none adjacent to the site boundary. The trees were assessed as having negligible potential to support roosting bat.
- xxiii. The habitats on site offer low suitability (scrub, grassland and scattered trees) for commuting and foraging bats as per Bat Conservation Trust 2016 guidance. The development will not have any significant impact on bat foraging and commuting habitat or on bat activity levels as the habitat is to be partially removed.
- xxiv. There are no buildings on site, which will require an internal inspection.

3.6.3 Water vole, white clawed crayfish and otter

- xxv. There are no records of water vole, white-clawed crayfish and otter within 1km of the site. Due to the urban location there is a lack of connectivity to site for these species.

3.6.4 Reptiles

- xxvi. One record of reptile was returned during the desk study. The habitats on site were dominated by grassland and dense scrub which provided good opportunities for reptiles. However, due to the small scale of the site and lack of connectivity reptiles are not anticipated to be present.

3.6.5 Birds

- xxvii. The dense scrub and broadleaved trees on site provided suitable habitat for birds to nest. These habitats are not representative of all the habitats available and within the locality. The majority of dense scrub on site will be lost to the development reducing available habitat for nesting birds.
- xxviii. There was no suitable nesting habitat for Schedule 1 birds on site, however there is suitable habitat on site in the form of dense scrub for a range of species identified in the desk study that are classed as a Bird of Conservation Concern, including Dunnock and House Sparrow. Although a large number of birds were identified in the desk study they are predominantly waterfowl with no suitable habitat on site for them.
- xxix. It is considered unlikely that the development will have a significant impact on populations of birds and their breeding success. There is a risk of disturbing nesting birds during the nesting bird season (i.e. March to August inclusive).

3.6.6 Hazel Dormouse

- xxx. The site is outside of the known distribution area for this species and it will not be considered further.

3.6.7 Badgers

- xxxi. There were no badger or fields signs recorded. There is suitable foraging habitat for badgers within the site, these are grassland and dense scrub. However, no local records were returned.

3.6.8 Other Priority Fauna Species

- xxxii. The data search returned records for common toad *Bufo bufo*, European hedgehog *Erinaceus europaeus* and brown hare *Lepus europaeus*. Suitable habitat was present on site for all species in the form of grassland and scrub.

4. Discussion and recommendations

4.1 Priority Species and Habitats

- i. The potential for the protected species and habitat to be present on the Site and the impacts based on the current proposals are provided below.

Table 9 Summary of impacts

HABITAT/SPECIES	IS THERE SUITABLE HABITAT ON SITE?	ANY LOCAL RECORDS?	LIKELIHOOD OF IMPACTS BY THE PROPOSALS?	ANY MITIGATION?	FURTHER SURVEYS?
Designated Sites	No	Yes	No	No	No
Habitats	No	Yes	No	Yes	Yes
Invasive species	No	No	No	No	No
Great crested newts	Yes	Yes	No	No	No
Bats – Tree Roosts	No	Yes	No	Yes	No
Bats – Building Roosts	No	Yes	No	No	No
Bats – Activity	Yes	Yes	No	Yes	No
Water Vole	No	No	No	No	No
Otter	No	Yes	No	No	No
White clawed crayfish	No	No	No	No	No
Reptiles	Yes	Yes	No	Yes	No
Birds	Yes	Yes	Yes	Yes	No
Dormice	No	No	No	No	No
Badgers	Yes	No	No	No	No

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Other priority species	Yes	Yes	No	No	No
Fish	No	No	No	No	No
Freshwater invertebrates	No	No	No	No	No
Terrestrial invertebrates	Yes	No	Yes	No	No

5. Enhancements

- i. The current design proposals show the loss of dense scrub and grassland to facilitate the construction of two new dwellings and associated gardens. Three scattered trees, including the two large ash trees on the northeast boundary are to be retained.
- ii. To reduce the loss of suitable habitat for birds and invertebrates native scrub planting should be included as part of the landscaping plans.
- iii. Integrated nest boxes could be included within the building design to provide nesting opportunities for Birds of Conservation Concern identified on site, such as House Sparrow. Additionally, integrated bat boxes such as Vivara pro build-in woodstone box, could be included in the design to provide new roosting opportunities on site for bats.
- iv. If fencing and gates are to be installed, they should not prevent the movement of amphibians and mammals identified in the area, including common toad and hedgehog. This can be achieved by cutting gaps in fencing and leaving space between gates and hard ground.

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Appendix 1: Legislation and Planning Policy

4.2 General and Regionally Specific Policies

- i. Articles of British legislation, policy guidance, Local Biodiversity Action Plans (BAP's) and the NERC Act (2006) and referenced throughout this report. The context of these are explained within the relevant sections of this report. Relevant legislation is:
 - The Hedgerow Regulations 1997;
 - Local planning policies in Barnsley Local Plan;
 - The Wildlife and Countryside Act 1981 (as amended);
 - EC Council Directive on the Conservation of Wild Birds 2009/147/EC;
 - The Environment Act (2021);
 - Local Biodiversity Action Plan for Barnsley;
 - The Natural Environment and Rural Communities (NERC) Act 2006;
 - ODPM Circular 06/2005 (retained as Technical Guidance on NPPF 2021);
 - National Parks and Access to the Countryside Act 1949;
 - The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019;
 - The National Planning Policy Framework (2021);
 - The Protection of Badgers Act 1992;
 - The Countryside and Rights of Way Act 2000; and
 - The Hedgerow Regulations 1997.

4.3 Hedgerows

- ii. All native hedgerows, including those, which are species poor, are listed under Section 41 of the NERC Act (2006) and are a Local Biodiversity Action Plan (LBAP) habitat. All native hedgerows are considered to be of high conservation value.
- iii. The Hedgerow Regulations (1997) classify a hedgerow as 'important' when it is:
 - Satisfies at least 1 of the criteria listed in Part II of Schedule 1;
 - Has existed for more than 30 years.
- iv. If a hedgerow is to be removed, a person is required to submit a hedgerow removal notice to the Local Planning Authority. Legislation for hedgerows include:
 - Hedgerow Regulations 1997;
 - Planning Policy Statement (PPS) 9: Biodiversity and Geological Conservation;
 - Natural Environment and Rural Communities Act (NERC) 2006;
 - The Countryside Rights of Way Act 2000.

4.4 Bats and Great Crested Newts

- v. Great crested newt and species of bats are fully protected under the Wildlife and Countryside Act 1981 (as amended) through their inclusion in Schedule 5. They are protected from:
 - Intentional or reckless killing, injuring or taking;
 - Damage to or the destruction of, or, obstruction of any place or shelter, breeding or resting;
 - Disturbance of an animal occupying a structure or place;
 - Possessing or controlling live or dead animals;
 - Selling, bartering or exchanging of these species or parts of.

- vi. The WCA is reinforced by the UK's transposition of the EU Habitat's Regulations under The Conservation of Habitats and Species Amendments (EU Exit) Regulations 2019 (as amended). These Regulations prohibit:
 - The deliberate killing, injuring or taking of bats or great crested newts;
 - The deliberate disturbance of any bat species or great crested newts in a way that will significantly likely affect:
 - Their ability to survive, hibernate, migrate, breed or rear or nurture their young;
 - The local distribution or abundance of that species;
 - Damage or destruction of a breeding or resting place;
 - The possession or transporting of bat species or great crested newts or any part of.
- vii. Certain circumstances may mean a licence needs to be granted by Natural England to permit activities that would otherwise constitute an offence. Regarding a development, a scheme must have full planning permission before a licence application can be made.
- viii. There are seven British bat species, which are listed as Species of Principal Importance (SPI) under the Natural Environment and Rural Communities (NERC) Act, 2006. These are barbastelle (*Barbastellus barbastellus*), Bechstein's (*Myotis bechsteinii*), brown long-eared (*Plecotus auritus*), greater horseshoe (*Rhinolophus ferrumequinum*), lesser horseshoe (*Rhinolophus hipposideros*) noctule (*Nyctalus noctula*) and soprano pipistrelle (*Pipistrellus pygmaeus*).
- ix. The National Planning Policy Framework 2021 gives protected species material consideration in planning. It states the impacts arising from development proposals must be avoided where possible or must be adequately mitigated/compensated for and opportunities for ecological enhancement should be sought.

4.5 Water vole

- x. Water voles (*Arvicola amphibius*) are protected under Schedule 5, Section 9 of the Wildlife and Countryside Act 1981 (as amended). It is an offence to kill, injure or capture a water vole, to intentionally recklessly damage, destroy or obstruct access to any structure or place which water voles use for shelter or protection or to disturb water voles whilst they are using such a place.

4.6 Otter

- xi. The Eurasian otter (*Lutra lutra*) is the only native UK otter species. It is fully protected under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended). This is reinforced by the UK's transposition of the EU Habitats Regulations under The Conservation of Habitats and Species Amendments (EU Exit) Regulations 2019 (as amended). Together both of these regulations make it an offence to:
 - Capture, kill, disturb or injure otters both on purpose or by not taking enough care;
 - Damaging or destroying a breeding or resting place, both deliberately or by not taking enough care;
 - Obstructing access to their resting or sheltering place both deliberately or by not taking enough care;
 - Possessing, selling, controlling or transporting live or dead otter, or parts of.
- xii. A conviction could get an unlimited fine and up to 6 months in prison.

4.7 White clawed crayfish

- xiii. White clawed crayfish (*Austropotamobius pallipes*) are protected under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended). Under the Act, it is an offence to intentionally take white-clawed crayfish from the wild and to sell them. They are also protected under the Habitats Directive, requiring the designation of Special Areas of Conservation (SAC) to protect important populations of this species.

4.8 Reptiles

- xiv. All reptiles species are partially protected under Schedule 5 (Sections 9 (1) and 9 (5)) of the Wildlife and Countryside Act 1981 (as amended). This legislation protects reptile from:
- Recklessly or intentionally killing or injuring;
 - Selling, offering to sell, possessing or transporting for the purpose of the sale or publishing advertisements to buy or sell a protected species.
- xv. In the addition to the above, sand lizards (*Lacerta agilis*) and smooth snakes (*Coronella austriaca*) are listed under The Conservation of Habitats and Species Amendments (EU Exit) Regulations 2019 (as amended). This makes it an offence to:
- Capture, kill, injure and disturb;
 - Take or damage eggs;
 - Damage or destroy breed/resting places;
 - Obstruct access to a resting place; and
 - Possess, advertise for sale, sell or transport for sale, live or dead (part or derivative)
- xvi. When reptiles are confirmed to be present on land which is going to be affected by development, the following is recommended:
- They should be protected from injury or killing during any construction activities;
 - Mitigation should be provided on site to maintain their conservation status of the species locally;
 - Under the NPPF 2021, the presence of any protected species should be a material planning consideration. Impacts, which arise from development, must be avoided where possible or be adequately mitigated/compensated for and ecological enhancements should be sought.

4.9 Birds

- xvii. The priority legislation affording protection to UK wild birds is the Wildlife and Countryside Act 1981 (as amended). This legislation means all birds, their nests and eggs are protected by law and it is an offence, with certain exceptions, to recklessly or intentionally:
- Kill, injure or take any wild bird;
 - Take, damage or destroy the nest of any wild bird whilst it is being used or is being built;
 - Take or destroy an eggs of any wild bird.
- xviii. Birds which are listed on Schedule 1 of the Act, it is an offence to disturb any bird whilst it is building a nest, is at or near a nest with young or disturbing the dependent young of a species.
- xix. Species which are listed in Annex 1 of the EU Birds Directive 1994 (e.g. peregrine and barn owl) are required to have special conservation measures which preserve their habitat and species to be classified as Special Protection Areas (SPA's) where appropriate.

4.10 Badgers

- xx. Badgers (*Meles meles*) and their setts are protected by the Protection of Badgers Act 1992 which makes it an offence to:
- Intentionally capture, kill or injure a badger;
 - Damage, destroy or block access to their setts;
 - Disturb badgers in their setts
 - Treat a badger cruelly
 - Deliberately send or intentionally allow a dog into a sett; and
 - Bait or dig for badgers

4.11 Hedgehogs and Common Toads

- xxi. Under the NERC Act 2006, the hedgehog (*Erinaceus europaeus*), common toad (*Bufo bufo*) and brown hare (*Lepus europaeus*) are categorised as a 'Species of Principal Importance' (SPI) for biodiversity. SPI are listed due to the populations having suffered a rapid and sustained decline so are a material consideration during planning. All three species are also listed as a priority species in the LBAP.

4.12 National Planning Policy Framework

- xxii. The National Planning Policy Framework (NPPF) 2021 sets out the Governments planning policies for England and how they are expected to be applied by Local Authorities within their Local Development Frameworks.
- xxiii. The key paragraphs from the NPPF are:

8.c) "to protect and enhance our natural, built and historic environment, including making effective use of land, improving biodiversity, using natural resources prudently, minimising waste and pollution, and mitigating and adapting to climate change, including moving to a low carbon economy"

174.d) "minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures"

179.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."

180.a) "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."

180.c) "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 reasons⁶³ and a suitable compensation strategy exi