

PROPOSED RESIDENTIAL DEVELOPEMENT AT SPRINGWELL LANE WHETSTONE LEICESTER

HABITATS AND PROTECTED SPECIES REPORT

(February 2024)

REPORT REF: 2356 - PHA



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CLIENT:	MyPad The Quadrant Nuart Road Beeston Nottingham NG9 2NH
ECOLOGIST:	Paul Hicking Associates 12 Beaurepaire Crescent Belper Derbyshire DE56 1HR Tel: 07856 729813 Email: paul@hicking.plus.com
Report Prepare	ed By:
Paul Hicking 14 Director	4 th February 2024.
Report Checke	d By:

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Paul Hicking FdSc 14th February 2024.

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CONTENTS

1.0	INTRODUCTION	4
2.0	METHODOLOGY	6
3.0	RESULTS	11
4.0	PLANNING AND NATURE CONSERVATION POLICY	17
5.0	ASSESSMENT	19
6.0	CONCLUSIONS AND RECOMMENDATIONS	24
APPE	ENDIX 1 – HABITATS PLAN	25
APPE	ENDIX 2 - SITE PHOTOGRAPHS	26

1.0 INTRODUCTION

1.1 Paul Hicking Associates were commissioned by MyPad to conduct a Habitat and Protected Species Assessment at 'Elms Farm' Springwell Lane, Whetstone, Leicester in order to assess the potential impact by the proposed residential development.

Site Description

1.2 Location

The survey site is located to the south-west of the village and civil parish of Whetstone. This c1.7967ha irregular shaped site comprises of an existing large single storey bungalow dwelling with associated timber and masonry outbuildings set within a large vegetated and non-vegetated garden with trees and introduced shrub. The site is accessed from Springwell Lane. The location of the site is shown within the aerial photograph below.

- 1.3 The proposals comprise of the construction 23no. new dwellings with associated hard and soft landscaping.
- 1.4 Aerial and context photograph of the survey site.



Previous Survey History for Protected Species and Habitats.

1.5 There is no previous survey history for the survey site.

2.0 METHODOLOGY

2.1 This section describes how the essential evidence supporting this report was gathered and what equipment and techniques were used.

Desk Top Study

- 2.2 A desktop study was carried out to determine the presence of any protected or notable species records or designated statutory or non-statutory sites of nature conservation value (such as Sites of Special Scientific Interest or Local Wildlife Sites) within a 1km radius of the site. This included the study of ordinance survey maps and aerial photographs including Google Earth and 'Where's the path' maps.
- 2.3 The MAGIC (www.magic.gov.uk) and the NBN Gateway (www.nbn.org.uk) were visited to identify records of protected species within a 1km radius of the site.
- 2.4 The OS grid reference is SP 556 961 and the site can be found on: -
 - OS Explorer 233 Leicester & Hinckley.
 - OS Landranger 140 Leicester, Coventry & Rugby.

Topographical Survey

2.5 A topographical survey was made available for the site (see Appendix 1). This survey was provided in an AutoCAD format and includes the position of all significant trees and hedgerows on or immediately adjacent to the site. The survey also includes all other landscape features such as the position of existing buildings and structures, pathways and access roads. Changes in ground levels were also recorded on the survey and are related back to known ordinance survey levels and coordinates.

Habitat Survey

2.6 The terrestrial Habitat survey was carried out on the 21st November 2023 by experienced surveyor and practical habitat manager Mr. P Hicking to determine the general ecological value of the habitats within the site. The surrounding area was also extensively walked to determine the sites connectivity to other adjacent habitats. A list of plant species was catalogued in accordance with habitat type and tested against Ratcliffe's Criteria. Habitats were mapped and classified in accordance with the Phase 1 Habitat Survey Habitats were mapped and classified in accordance with the Phase 1 Habitat Survey Methodology of the UK Habitat Classification (ukhab, V2 July 2023). The data was then checked against the data obtained from the desktop study to determine how the study site sits within the local network of habitats and its potential contribution.

2.7 Biodiversity Net Gain.

2.8 In order to assess the potential impact of the proposals the DEFRA statutory biodiversity metric auditing and accounting for biodiversity calculation tool (January 2024) has been used to calculate the value of the habitats within the site pre and post-development. The outcome of the proposals should aim to achieve a minimum of a 10% gain as required by the assessment within the development site.

2.9 Weather Conditions

Table 1:

Date	Weather Conditions
21/11/2023	10°C Dry following rain-shower, with light breeze 0-1, 90% cloud cover.

2.10 Invasive species – The site was thoroughly search for the presence of invasive species such as Japanese Knotweed (*Fallopia japonica*) or Himalayan balsam (*Impatiens glandulifera*).

Fauna Survey

- 2.11 A protected species survey was conducted. Sightings or signs of protected species were recorded along with the suitability and connectivity of the habitats present to support protected species and are detailed as follows:
- 2.12 Badger (*Meles meles*): are nocturnal animals and the survey therefore involved searching for evidence of this species.

Specific signs which were searched for as follows:

- Setts and day nests (bundles of grass and other vegetation where badgers may sleep above ground);
- Dung pits and latrines (i.e. concentration of dung pits);
- Paw prints and paths;
- Hairs (which may be found at the sett or caught on fences and vegetation);
- Scratching posts (found at the base of trees);
- Feeding signs (i.e. "snuffle holes" or small scrapes on the woodland floor and/or grassland where badgers have looked for earthworms and plant tubers etc.).
- 2.13 Mammals There is potential for the presence of small mammals such as Hedgehog (*Erinaceus* europaeus) and signs were looked for including runways and droppings along with an assessment of available food source and habitat structure.

- 2.14 Birds The site was fully assessed for its potential suitability to support breeding birds along with an assessment of resident bird populations. All site records for birds were taken from site visual observations or by call. Leica 8 x 42 binoculars were used to observe and identify bird species. All birds could be observed without the aid of additional optical equipment i.e. a telescope.
 - Using the British Trust for Ornithology (BTO) Common Bird Census survey techniques species were recorded to note their abundance along with particular attention to the presence of any protected or Local Biodiversity Plan (LBAP) species which would be likely to use these habitats. This data was compared with data obtained from the desktop study. Existing trees and ground vegetation were also inspected for their potential to support breeding birds.
- 2.15 Great Crested Newt The surrounding area, where possible, was extensively walked to determine the presence of ponds and networks which may support this species. Data obtained within the desktop study was also reviewed to determine if this species had been recorded within the vicinity of the study site.
- 2.16 Amphibians Generally The site and surrounding vicinity, where possible, was extensively walked to determine the potential for the presence of other amphibians such as Common Toad (*Bufo bufo*), Common Frog (*Rana temporaria*), Smooth (*Lissotriton vulgaris*) and Palmate Newt (*Lissotriton helveticus*). Data obtained within the desktop study was also reviewed to determine if any of these species had been recorded within the vicinity of the study site.
- 2.17 Reptiles The site and surrounding vicinity was extensively walked to determine the potential for the presence of reptiles such as Grass snake (*Natrix natrix*) and Slow-worm (*Anguis fragilis*). Data obtained within the desktop study was also reviewed to determine if any of these species had been recorded within the vicinity of the study site. The survey timing was also during the winter period when ground cover is at its minimum and therefore the potential habitat density along the river bank could not be assessed.
- 2.18 Invertebrates are most effectively surveyed in May-August at the height of the flight period for most invertebrates. However, some invertebrates are active during the winter months including winter moth species. The study site was therefore assessed for its potential for the presence of invertebrates such as butterflies, bees, moths and Odonata (dragonflies and damselflies). Recommendation for the protection of habitats or introduction of enhancement features for invertebrates are based on this site assessment.

2.19 Bats:

Daytime Bat Survey

Buildings and Tree(s) were initially assessed from the ground during the walkover survey using the following criteria set-out within table 2 below:

Table 2:

Roost Potential	Description	Surveys Required
Confirmed	Evidence of bats found during initial	Three surveys comprising dusk or
	daytime inspection.	dawn, one must be a dawn survey
		between May to September with at
		least two of the surveys between May
		and August.
High	A structure or tree with one or more	Three surveys comprising dusk or
	potential roost sites that are	dawn, one must be a dawn survey
	obviously suitable for use by larger	between May to September with at
	numbers of bats on a more regular	least two of the surveys between May
	basis and potentially for longer	and August.
	periods of time due to their size,	
	shelter, protection, conditions and	
	surrounding habitat.	
Moderate	A structure or tree with one or more	Two surveys comprising dusk or dawn,
	potential roost sites that could be	one must be a dawn survey between
	used by bats due to their size,	May to September with at least two of
	shelter, protection, conditions and	the surveys between May and August.
	surrounding habitat but unlikely to	
	support a roost of high conservation	
	status (with respect to roost type	
	only – the assessments in this table	
	are made irrespective of species	
	conservation status, which is	
	established after presence is	
	confirmed).	
Low	A structure or tree with one or more	One survey required between May to
	potential roost sites that could be	August.
	used by individual bats	
	opportunistically. However, these	
	potential roost sites do not provide	
	enough space, shelter, protection,	
	appropriate conditions and/or	
	suitable surrounding habitat to be	
	used on a regular basis or by larger	
	numbers of bats (i.e. unlikely to be	
	suitable for maternity or hibernation	

Negligible	Negligible habitat features on site	No further surveys are required.
	likely to be used by roosting bats	

Trees that have been identified as having high potential roost features may require further investigation, including aerial tree surveys. Once trees have been aerially surveyed, they may be re-categorised as higher or lower risk.

2.20 Survey Limitations.

The information obtained from within the desk-top data search (i.e. biological data records) is not an exhaustive source of information and is depended upon any local or focused survey activity undertaken within the data search area. The absence or a negative result of a species does not indicate the absence of a protected species from the survey site or surrounding search area.

All areas and/or linear dimensions provided within this report are approximate taken from survey mapping or data provided. The survey appraisal is limited to the boundaries of the client ownership and where permitted public access routes and footpaths.

3.0 RESULTS

3.1 The section states the findings of the survey effort.

Habitats.

3.2 Maps published by the Ordnance Survey were consulted to ascertain the potential ecological connectivity of the area. Aerial photographs were also studied to detect possible navigable routes for between the study site and locations that might provide suitable foraging areas or potential alternative sites for roosting, nesting and hibernation. There are no UK Biodiversity Action Plan (UKBAP) habitats within the study site. Habitats outside the development site comprise of the following:

Outside the development site.

- Residential and commercial development
- Public footpaths and access roads.
- 3.3 There are no statutory designated sites or Local Wildlife Sites (LWS), of nature conservation within or adjacent to the survey site however, the following statutory and non-statutory Sites are located within 1-2km of the study site;

Table 2: Non-statutory sites within 1km of the development site:

Name	Designation	Location reference to survey site
Narborough Site of Scientific Interest	SSSI	2.1km north.
Whetstone Brook	00026512	380m east.
Hedgerow	00026507	555m south east.
Dismantled Railway Line	00001509	1.1km south west

- 3.4 The survey site comprises of the following habitats:
 - u1b5 buildings
 - u1d828 vegetated garden with introduced shrub
 - u1d829 non-vegetated garden
 - r1g46 ornamental pond.
 - w1h scattered trees.

The locations of the above habitats within the study site are shown within Appendix 1.

3.5 **u1b5 – buildings.**

There are several masonry and timber frame buildings within the site and comprise of a large single storey traditional brick-built bungalow dwelling with a large single storey timber frame annex building containing an indoor swimming pool. At the rear of the site there is a group of masonry and timber storage sheds.

3.6 u1d828 – vegetated garden with introduced shrub.

Vegetated garden habitats comprise of traditional lawn with shrub and flower bed borders. The garden is separated into two parcels comprising of formal gardens at the front, side and rear of the dwelling with an enclosed walled garden at the rear of the site containing the remnants of a formal vegetable garden.

Garden lawns comprise of a traditional short-cut sward of rye grass containing some dense areas of moss and occasional herb species of bird's-foot trefoil (*Lotus corniculatus*), white clover (*Trifolium repens*), pansy (*Viola tricolor sp.*) and common yarrow (*Achillea millefolium*). The garden has not been managed for some time leading to the presence of ragwort (*Jacobaea vulgaris*).

Shrub borders contain a mix of shrub and herb of clematis, bindweed (*Convolvulus Morning-glories*), hollyhock (*Alcea sp.*), *Salvia* 'Hot-lips', meadow phlox (*Phlox maculata*), garden phlox (*P. paniculata*), holly (*Ilex aquifolium*), greater willowherb (*Epilobium hirsutum*), ragwort (*Jacobaea vulgaris*), dogrose (*Rosa canina*), meadow cranesbill (*Geranium pratense*), pansy (*Viola tricolor sp.*), poppy (*Papaver rhoeas*) and purple deadnettle (*Lamium purpureum*).

The former vegetable garden at the rear of the site is overgrown with grass and herb species of common nettle (*Urtica dioica*), ragwort (*Jacobaea vulgaris*), bramble (*Rubus fruticosus*), greater willowherb (*Epilobium hirsutum*), poppy (*Papaver rhoeas*), creeping thistle (*Cirsium arvense*), scabious (*Scabiosa sp.*), Yorkshire fog (*Holcus lanatus*), mallow (*Malva moschata*), buddleja (*Buddleja davidii*) 'White fusion', meadow buttercup (*Ranunculus acris*), Sorrel and pleached specimens of apple and pear.

3.7 u1d829 – non-vegetated garden.

Non-vegetated habitats comprise of areas of hardstanding and pathways of block paving, concrete slabs and gravel.

3.8 R1g46 – ornamental pond.

Two small concrete ornamental ponds are located within the rear garden of the bungalow and comprise of pre-cast ornamental pond bases with a pumped water feature set within a raised rockery. There are no aquatic plants or pond bed for the introduction of aquatic plants. The pumps have not been used for some time and the water is stagnant with a green algae surface. The rockery is planted with herb, shrub and succulent species of leylandii, thyme (*Thymus vulgaris*), Cotoneaster (*Cotoneaster horizontalis*), geranium, agapanthus, ivy (*Hedera helix*) and sempevivium.

3.9 w1h – scattered trees.

Scattered trees within the survey site comprise of a range of native and non-native species of field maple (*Acer campestre*), holly (*Ilex aquifolium*), atlas cedar (*Cedrus atlantica*), eucalyptus (*Eucalyptus spp.*), leylandii and leylandii hedgerow and magnolia (*Magnoliales sp.*). Atlas cedar and field maple trees along the southern boundary are protected by a Tree Protection Order (TPO) 2023. The location of these trees is shown on the habitats plan within Appendix 1 notes TN1 Atlas cedar, TN2 Atlas Cedar and TN3 Field Maple.

Fauna.

3.10 Badger.

Potential Use of Site.

The grassland habitats within the survey site provide optimal habitats for foraging badger however the garden enclosure limit access to the entrance gate. No field signs for badger were found within the site. There are no badger setts with the survey site or within 30m radius of the site. The location site although within an area of dense urban development has relatively good connectivity to the wider ecological beyond where badger are known to be present and it is likely at times a badger may forage into the urban area and residential gardens. There are biological records for badger within 1km of the survey site however, in the interest of the protection of this species these records will not be published within this report.

3.11 **Mammals Generally** – The site provides typical habitats suitable for small mammals for commuting and foraging and specifically for hedgehog and this is supported by biological records as shown in table 4 below:

Table 4: The following species have been recorded within 1km of the study site:

English Name	Scientific Name	No. of Records/Most recent Date
West European hedgehog	Erinaceus europaeus	Latest recorded 2023
Red fox	Vulpes vulpes	Latest recorded 2022

3.12 Birds.

A total of 12 species were recorded during the survey including one red listed species and two amber listed species of conservation concern. The buildings are generally well sealed and there are no signs of access or previous nest building within any of the structures present within the site however, whilst the majority of the site is limited to commuting and foraging the dense shrub and conifer habitats do provide some potential to support breeding birds.

The total list of species recorded relative to the study site are included within table 5 and relevant county records within table 6 below.

Table 5: The following species were recorded within the study site and surrounding area.

English Name	Scientific Name	No.	Details
Blackbird	Turdus merula	4	
Great tit	Parus major	2	
Blue tit	Cyanistes caeruleus	1	
Long-tailed tit	Aegithalos caudatus	3	
Chaffinch	Fringilla coelebs	1	
Carrion crow	Corvus corone	1	
Wood Pigeon	Columba palumbus	6	AMBER LISTED
Starling	Sturnus vulgaris	4	RED LISTED
Magpie	Pica pica	2	
Pied wagtail	Motacilla alba	1	
Goldfinch	Carduelis carduelis	7	
Wren	Troglodytes troglodytes	1	AMBER LISTED

Table 6: The following species were recorded within 1km of the study site and surrounding area.

English Name	Scientific Name	No. of Records/Most recent Date
Wood Pigeon	Columba palumbus	Latest record 2022
Goldfinch	Carduelis carduelis	Latest record 2019
Blue tit	Cyanistes caeruleus	Latest record 2019
Great tit	Parus major	Latest record 2013
Long-tailed tit	Aegithalos caudatus	Latest record 2014
Coal tit	Periparus ater	Latest record 2019
Robin	Erthiacus rubecula	Latest record 2016
Great spotted woodpecker	Dendrocopos major	Latest record 2019
Magpie	Pica pica	Latest record 2014
Greenfinch	Chloris chloris	Latest record 2019
Blackbird	Turdus merula	Latest record 2019
Chaffinch	Fringilla coelebs	Latest record 2019
Dunnock	Prunella modularis	Latest record 2018
Collared dove	Streptopelia decaocto	Latest record 2021
Starling	Sturnus vulgaris	Latest record 2013
House sparrow	Passer domesticus	Latest record 2019
Wren	Troglodytes troglodytes	Latest record 2022
Blackcap	Sylvia atricapilla	Latest record 2019
Song thrush	Turdus philomelos	Latest record 2011

The above records show the presence of a community of species associated with the habitats within the survey site and the surrounding area.

- 3.13 Great Crested Newt (*Triturus cristatus*) The ornamental ponds within the site are sub-optimal as breeding habitats as they lack the vegetation for egg laying and safe passage to and from the pond. The are no ponds within 500m of the site and the site is relatively isolated and secluded by the surrounding urban development therefore limiting the potential for the presence of this species. No biological records for this species were returned within 0.5km of the site.
- 3.14 **Amphibians** Whilst the two ornamental ponds are sub-optimal for breeding the grassland and shrub habitats within the garden provide optimal habitat for the dispersal of amphibians such as common frog and toad. There are no biological records for amphibians within 1km of the survey site. No amphibians were found within the survey site.

Table 7: The following species have been recorded within 1km of the study site:

English Name	Scientific Name	No. of Records/Most recent Date
Common frog	Rana temporaria	Latest recorded 2013

3.15 Reptiles – The grassland and shrub habitats provide optimal habitat for commuting and dispersal of reptiles along with hardstanding for basking. No reptiles were found within the site however, the majority of the site is well sealed along the boundary preventing access between gardens therefore limiting access to the site entrance. There are biological records for the presence of grass snake within 0.5km of the survey site.

Table 8: The following species have been recorded within 1km of the study site:

English Name	Scientific Name	No. of Records/Most recent Date
Grass snake	Natrix natrix	Latest recorded 2018
Slow worm	Anguis fragilis	Latest recorded 2017

3.16 **Invertebrates** – The habitats present within and adjacent to the site offer potential for range of common invertebrates including butterflies, dragonflies and bees. and this is supported by biological records as detailed within the table below;

Table 9: The following species have been recorded within 1km of the study site:

English Name	Scientific Name	No. of Records/Most recent Date
Western honey bee	Apis mellifera	Latest recorded 2023
Gatekeeper	Pyronia tithonus	Latest recorded 2023
Holly blue	Celastrina argiolus	Latest recorded 2023
Comma	Polygonia c-album	Latest recorded 2023

Small copper	Lycaena phlaeas	Latest recorded 2023
Peacock	Aglais io	Latest recorded 2023
Large white	Pieris brassicae	Latest recorded 2023
Small tortoiseshell	Aglis urticae	Latest recorded 2023
Red admiral	Vanessa atalanta	Latest recorded 2023
Humming-bird hawk-moth	Macroglossum stellatarum	Latest recorded 2023
Brown hawker	Aeshna grandis	Latest recorded 2013
Common darter	Sympetrum striolatum	Latest recorded 2023

Up to 300 species of moth have been recorded within 0.5km indicating an active survey for moths within the local area. It is likely that habitats within the survey site support many of these species.

- 3.17 **Invasive species** –There are no invasive non-native species within or adjacent to the survey site however, ragwort and cotoneaster horizontalis are present within the site. Cotoneaster horizontalis is listed on schedule o of the UK Wildlife and Countryside Act (1981) as amended.
- 3.18 Bats The exterior of all buildings were carefully inspected. The existing large bungalow and timber frame swimming pool have been well maintained by the previous owner. All roof coverings, ridge tiles, eaves and exterior brickwork mortar and timber cladding joints are in good state repair and are without features which could support roosting bats. These buildings at this time are categorised as having negligible potential to support roosting bats.
- 3.19 The exterior of the garden sheds were also inspected and again the buildings although are old have been reasonably well maintained for use with the maintenance of the garden and secure storage of tools and materials. These buildings at this time are categorised as having negligible potential to support roosting bats as there are no openings or features within the exterior materials which would allow access for roosting bats.
- 3.20 Existing trees are without maturity, defect or features at this time to support roosting bats and therefore they were classed as negligible potential to support roosting bats.
- 3.21 There is a single biological record for bats within 1km of the survey site.

Table 10: The following species have been recorded within 1km of the study site:

English Name	Scientific Name	No. of Records/Most recent Date
Brown long-eared	Plecotus auritus	Latest recorded 2023

4.0 PLANNING AND NATURE CONSERVATION POLICY

- 4.1 This section provides an overview of National Planning Policy Framework Section 15 (NPPF) adopted by Blaby District Council for policies in relation to nature conservation and biodiversity.
- 4.2 "Ecological issues need to be considered for all planning applications under the following legislation, regulations and guidance:

The conservation of Habitats and Species Regulations (2017) (as amended);

The National Planning Policy Framework – Section 15 (NPPF);

Natural Environment and Rural Communities Act 2006 (as amended);

The Wildlife and Countryside Act 1981 (as amended);

Environment Act 2021."

The National Planning Policy Framework (NPPF 2023) describes the Government's national policies on the protection of biodiversity [and geological] conservation through the planning system. The NPPF 2021 emphasises the need for planning authorities to ensure that the potential effects of planning decisions on biodiversity conservation are fully considered.

The assessment of ecological effects set out within this report is based on the above approach.

Blaby District Council Nature Conservation Strategy 2018.

- 4.3 The District of Blaby contains a range of habitats each supporting its own characteristic species.

 The district also has a number of sites which receive specific protection because of their national or county/ regional importance for nature conservation.
- 4.4 The United Kingdom Biodiversity Action Plan (UKBAP) and Local Biodiversity Action Plan (LBAP), list a series of Priority Habitats of conservation concern that are considered to be priorities for nature conservation. The following UKBAP and LBAP habitats and species of concern are present within or adjacent to the study site;

Native species veteran trees;

Native species hedgerow;

Common and birds of conservation concern i.e., swift (Apus apus)

Biodiversity Net Gain.

- 4.5 "Biodiversity Net Gain requires developments to leave the natural environment in a measurably better condition".
- 4.6 "Biodiversity Net Gain (BNG) is a way of creating and improving natural habitats. BNG makes sure development has a measurably positive impact ('net gain') on biodiversity, compared to what was there before development'.
- 4.7 All development should aim to achieve a minimum of a 10% net gain within the confines of the development through such means as the protection, retention and enhancement of existing habitats along with the provision of new additional habitats. Where this cannot be achieved the proposals may be required to seek an off-site contribution using a recognised credits scheme.

5.0 ASSESSMENT

Constraints on the Survey Information.

- 5.1 Many species, including some which are protected by law, are highly mobile and may colonise or utilise a site at any time. Also, habitats may change over time in terms of their ecological value and the survey results reported here will therefore become less reliable as time progresses.
- 5.2 The site was assessed during the visit to establish the potential presence or absence of protected species. No continual survey monitoring has been undertaken therefore a lack of evidence of a protected species at this time does not necessarily indicate an absence of the species.

Potential impacts.

- 5.3 Designated sites there are no designated sites within the survey site. The non-statutory sites outlined within this report are sufficiently separated from the survey site by distance, arable and grazing pastures fields, residential and commercial development and road network. The proposals will therefore have no direct physical impact upon designated sites.
- 5.4 **Boundary habitats** there are trees and hedgerows on or close to the boundary of the development site. All retained habitats, including tree groups and hedgerows are to be protected in accordance with British Standard B.S. 5837 : 2012.
- 5.5 **Control of dust** all contractors have a duty of care to control dust as part of their health and safety under the Control of Substances Hazardous to Health (COSHH). The localised sandy soils will be of particular concern during the initial site-strip phase of any approved development.

Habitats.

- u1b5 buildings.
- u1d828 vegetated garden with introduced shrub.
- u1d829 non-vegetated garden.
- r1g46 ornamental pond.
- w1h scattered trees.
- 5.6 u1b5 buildings All existing buildings will be demolished and removed and replaced with new dwellings. There are currently no features within the existing buildings and therefore the introduction of new buildings will provide the opportunity for the introduction of permanent features to support roosting bats and breeding birds.
- 5.7 **u1d828 vegetated garden with introduced shrub** This habitat is typically found within traditional gardens to a single large dwelling with they have been formally landscaped and planted but becomes quickly overgrown when the property becomes vacant. Currently this habitat is

considered to be **poor** in value for biodiversity due to its species composition and the overall absence of management. This habitat will be lost to accommodate the proposed development and new gardens will be introduced however, they should be carefully considered and be diverse in the range of native species and structure to maximise their potential towards biodiversity.

- 5.8 **u1d829 non-vegetated garden** Existing paving and hardstanding will be removed and replaced with new paving and hardstanding. These surfaces should be of a permeable structure and where possible roadside raingardens could be introduced in-line with the requirements of a sustainable drainage system 'SuDs' and provide habitats for a range of native grass and herb species.
- 5.9 r1g46 ornamental pond the existing ponds are currently poor in value for biodiversity as they a simple water filled concrete bowel as a water feature. This habitat will be lost to accommodate for the new development however, a new small pond for wildlife could be introduced within any areas of open public space landscaping.
- 5.10 **w1h** scattered trees With the exception of the three large specimens of field maple and atlas cedar, protected by the tree preservation order, all other trees and leylandii hedgerow are to be removed to accommodate the new development and therefore new native tree and hedgerow planting of local provenance will be required to be introduced within the proposed development.

Fauna.

- 5.11 **Badger** There are no setts present within the site or 30m of the survey site and no signs of activity were found within the site. As there is potential for badger to forage within the local urban environment precautions for badgers during the construction works are to be undertaken as outlined in section 6.2 and 6.4 of this report.
- 5.12 **Mammals Generally** The site has the potential for the presence of small mammals such as hedgehog and therefore precautionary works are to be undertaken as outlined within the recommendations section 6.2 and 6.4 of this report.
- 5.13 Birds A community of common bird species were recorded present within the vicinity of the site and these remain in-line with species recorded within the biological records. However, the grassland habitats have potential to support ground nesting birds such as skylark and therefore the sites full potential to support nesting birds cannot at this time be fully assessed. A breeding bird survey is recommended to provide full understanding of breeding birds within the site.

To avoid conflict with the legislation for breeding birds habitat removal must be undertaken outside the bird breeding season (March-September). If habitat clearance is unavoidable during the breeding season then the following action should be undertaken:

Prior to the commencement of works, the area including any affected vegetation, should be thoroughly searched for nesting birds. If a bird's nest is found then it should remain undisturbed and a 5m buffer zone should be created around the nest including above and below it. The zone around the nest site is to remain free of construction activities and disturbance until the young have fledged and left.

The introduction of new dwellings has the potential for the inclusion of new permanent nest features in accordance with BS: 42021: 2022. 'Action for Swifts' Afs nest chambers are recommended for installation within new external walls. A barn owl box will be erected within the trees adjacent to the boundary and facing the open field beyond.

All existing retained habitats are to be managed and enhanced including the formation of new hedgerows. New habitat planting is to be carefully designed to provide a food source for birds.

- 5.14 **Great Crested Newt** the site is considered to be sub-optimal to support great crested newt and no further survey work is required at this time
- 5.15 **Reptiles** have been recorded within 0.5km of the site however, the site is relatively well sealed along the boundaries limiting access. Occasionally grass snake and slow worm are foundin avcres associated with vegetable plots and storage areas and therefore precautionary works are to be undertaken as outlined within the recommendations section 6.2 and 6.4 of this report.
- 5.16 **Amphibians** common amphibians such as frog and toad are likely to be present and disperse between gardens. The proposed development will not impact onto existing habitats with potential to support amphibians however as amphibians may be present within the retained grassland and may forage towards the construction works, precautionary works are to be undertaken as outlined within the recommendations section 6.2 and 6.4 of this report.
- 5.17 Invertebrates Overly underestimated in most mitigation work, invertebrates are vital to the health of habitats and provide a means of food source to a variety of species and for some there has been a decline in their number, most notably bee populations. Based on the survey work carried out so far, and the data records obtained, existing habitats have a capacity to support a range of invertebrate populations. Existing habitats with this potential will be retained are to be enhanced improving the sites potential to support invertebrate populations.
- 5.18 **Invasive species** There are no invasive non-native species within the site and no further survey work is required however, the removal of cotoneaster horizontalis and ragwort is to be removed by
- 5.19 Bats the buildings and trees within the site are currently without features to support roosting bats.
 There are biological records for the presence of bats within the immediate vicinity of the site and therefore the survey site contains potential for foraging and commuting bats.

- 5.20 The introduction of new dwellings will provide the opportunity for the introduction of permanent features for roosting bats with the introduction of bat bricks within the façade of new buildings.
- 5.21 The design of external lighting should be carefully considered to avoid impact on existing trees and potential flight zones and is to be designed in accordance with the Bat Conservation Trust guidelines for external lighting.
- 5.22 DATA RECORDS The information gathered from the various sources available mainly focused on known local wildlife sites. These sites are well visited and are common areas of study. The study site is a private site and not commonly available for study. The absence of data for this site does not preclude the assumption of the absence of species and every effort has been made to provide a thorough understanding of the sites availability for species. The data obtained has therefore been used to provide an indication of species present within the surrounding area, however this has limitations due to date of submission and should therefore be used to guide the direction of the area of study and potential update and reconfirm presence or absence.

Legislation.

- 5.23 Amphibians (Common Species) Common amphibian species (i.e. common frog, common toad, smooth newt and palmate newt) are afforded partial legal protection under UK legislation, i.e. Schedule 5, Section 9 (5) of the Wildlife and Countryside Act 1981 (as amended) and the Countryside Rights of Way (CRoW) Act 2000. This legislation prohibits:
 - Sale;
 - Transportation; and
 - Advertising for sale.
- 5.24 Badger Badger is a widespread and generally common species. However, they are legally protected under The Protection of Badgers Act 1992, which is based primarily on the need to protect badgers from baiting and deliberate harm or injury. Under this legislation to:
 - Willfully kill, injure, take, or cruelly ill-treat a badger, or attempt to do so;
 - Possess any dead badger or any part of, or anything derived from, a dead badger; and
 - Intentionally or recklessly interfere with a sett by disturbing badgers whilst they are
 occupying a sett, damaging or destroying a sett, causing a dog to enter a sett or obstructing
 access to it.

A badger sett is defined in the legislation as "any structure or place, which displays signs indicating the presence of badger"

5.25 Birds – The bird breeding season generally lasts from early March to September for most species.
 All birds are protected under the Wildlife and Countryside Act 1981 (as amended), Countryside

Rights of Way (CRoW) Act 2000. This legislation makes it illegal, both intentionally and recklessly to:

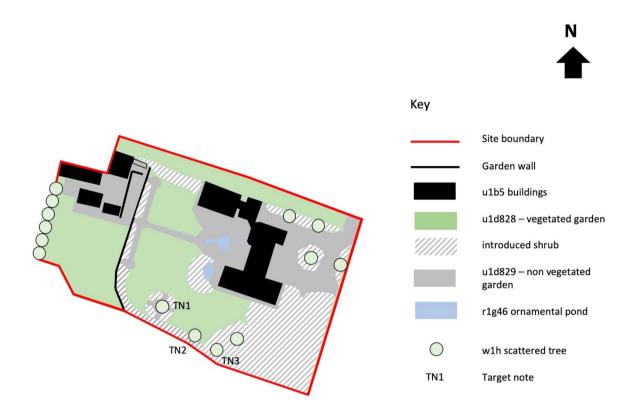
- Kill, injure or take any wild bird.
- Take, damage or destroy the nest of any wild bird while it is being built or in use.
- Take or destroy the eggs of any wild bird; and
- Possess or control and wild bird or egg unless obtained legally.
- 5.26 Birds listed under Schedule 1 of the Wildlife and Countryside Act 1981 (as amended) are afforded additional protection, which makes it an offense to disturb a bird while it is nest building, or at a nest containing eggs or young, or disturb the dependent young of such bird.
- 5.27 Great Crested Newt Great Crested Newt and their habitat are afforded full protection under UK and European legislation, including the Wildlife and Countryside Act 1981 (as amended), Countryside Rights of Way (CRoW) Act 2000 and The Conservation of Habitats and Species Regulations 2010 (as amended). This makes it an offense to kill, injure or disturb great crested newts and destroy any place used for rest or shelter by a newt. The great crested newt is also listed on Annexes II and IV of the EC Habitats Directive and Appendix II of the Bern Convention. If a development activity is likely to result in disturbance or killing of a great crested newt, damage to its habitat etc, then a licence will usually be required from Natural England.
- 5.28 Reptiles There are six native species of reptiles in the UK, including slow-worm, common lizard, grass snake and adder, smooth snake and sand lizard, which are afforded varying degrees of protection under UK and European Legislation. Slow-worm, viviparous/common lizard, adder and grass snake are protected under Schedule 5, Section 9 (1 and 5) of the Wildlife and Countryside Act 1981 (as amended), Countryside Rights of Way (CRoW) Act 2000 against deliberate or reckless killing, injuring and sale.

6.0 CONCLUSIONS AND RECOMMENDATIONS

Habitats and Protected Species.

- 6.1 The development site is not subject to any statutory or non-statutory nature conservation designation. No sites identified within this report will be directly or indirectly impacted by the proposed development.
- 6.2 The survey site contains a large area of vegetated garden with introduced shrub within scattered trees. The habitats within the site have potential to support small mammals such as hedgehog along with breeding birds, amphibians, reptiles and commuting bats and invertebrates therefore, precautionary measures must be in place prior to and throughout the construction phase for their protection. This may be secured by a suitably worded planning condition for the implementation of a Construction Ecological Management Plan (CEMP) and Reasonable Avoidance Measures Statement (RAMs).
- 6.3 All retained trees, hedgerow and grassland habitats are to be protected in accordance with BS 5837; 2012 during the construction period of the development and a subsequent management plan is to be put in place to maintain the health, structure and density of this habitat.
- The following is a guide is also recommended for the protection of mammals, amphibians and reptiles during the construction works.
 - No foundation work should be left uncovered, overnight or for any length of time to avoid mammals becoming trapped in foundation or services trenches. Where this is unavoidable then trenches should be left with a sloping end or ramp to allow any animal that may fall in to escape.
 - Pipes over 150mm in diameter should be capped off at night to prevent animals entering.
 - The site is to be recheck for the presence of hedgehog if the project is delayed at any time.
- 6.5 Where habitats are to be lost the development should seek to include new species rich habitats (including new hedgerow planting), which vary in structure and density and to comprise of native species of local provenance (using recorded habitats and species within this report as a base-line guide). The development should aim to maximise the retention of existing habitats and their enhancement that will aim to achieve a biodiversity net gain (minimum 10%), proven and supported by the DEFRA Statutory Biodiversity Metric Calculation method. The development should also aim to include permanent features for nesting birds, and roosting bats. This may be secured by a planning condition for the implementation of a Landscape Ecological Management Plan (LEMP) detailing the type, quantity and location of each feature and habitat type.
- 6.6 Biodiversity net gain See additional report outlining the results of the statutory biodiversity calculation.

APPENDIX 1 – HABITATS PLAN



APPENDIX 2 - SITE PHOTOGRAPHS

Site record photographs taken during the site survey 21st November 2023.











