www.cherryfieldecology.co.uk

Report prepared for: Smug Oak Lane limited

For the Site of: Smug Oak Lane, Bricket Wood, St Albans, AL2 3PN

Version:	Written by:	Checked by:	Final:
Draft	Elijah Bird 03/02/2023		
Final	Heather Stuckey 06/02/2023	Amy Palmer 14/02/2023	Heather Stuckey 14/02/2023
Amended			Heather Stuckey 30/10/2023

Cherryfield Ecology has prepared this report for the named clients use only.

Ecological reports are limited in shelf life, Natural England usually expect reports for licences to be from the most recent or current season. Therefore, should the project not proceed within 12 months of this report an updated survey should be undertaken in order to check for changes that may have occurred on site. Information is believed to be accurate at the time of survey; recommendations are made without bias based on good practice guidelines within the industry. However, species presence and ecological parameters can change over time.

Heather Stuckey BA (Hons), CIEEM (Qualifying Member)

[redacted]

[redacted]

Contents

Ecological Appraisal (EA)

0.0 Non-Technical Summary

0.1 Background

This report follows national guidelines JNCC (2010) allowing for a day-time inspection and recommends for further surveys, if considered necessary. If a deviation from the guidelines has been made, this will be detailed in the Method Section.

The following report details the findings and recommendations for the site of Smug Oak Lane, Bricket Wood, St Albans, AL2 3PN.

The client commissioned Cherryfield Ecology to undertake an EA as the proposals include for the demolition of the existing building and the construction of 9 residential dwellings. The final proposed plans are not available at this time and a verbal description has been given.

0.2 Results and Findings

The site consists of one detached single-storey building, several industrial containers, bare ground, scrub and trees.
No protected species were found on site at the time of the survey. [redacted]. The site currently provides **low** potential for badger, as whilst there is historical evidence of a badger sett, no further evidence of badgers was found on site. The site provides **low** potential for Great Crested Newt (GCN) as whilst there is some suitable habitat and refugia on site, there are no water bodies within 500m of the site. The site provides **high** potential for reptiles due to suitable habitat and good connectivity to more suitable habitats. The building (B1) provides **low** potential for roosting bats as there were few features observed on the exterior of the building that would be suitable for roosting bats, however, there is open access to the building through the open windows and through a hole in the brickwork

on the eastern elevation. As access to the building was restricted at the time of the survey, the interior of the building could not be fully assessed.
The scrub and tree habitats provide **high** potential for breeding birds.

0.3 Impact Assessment and Recommendations

Badger – No further surveys are necessary; however, due to the historical evidence of badgers on site and how dense the scrub is (which could obscure further evidence), it is recommended that [redacted] prior to development commencing for any signs of recent activity and that an ecologist be on site to supervise the clearance of the surrounding scrub habitat.

Bats – **Presence/Likely Absence surveys** will be required (one survey, followed by two further surveys if bats are found to the present, a minimum of two weeks apart).

A total of three surveyors to cover B1 will be required. This survey must be undertaken within the May to September window (with September considered sub-optimal). Any further surveys will need to be undertaken during the optimal timeframe of mid-May to August.

Breeding Birds - No further surveys are recommended; however, the development should take place outside the nesting season (March to August). If this is not possible, it is recommended that a qualified ecologist is on site to ensure the building/vegetation is not occupied by breeding birds, prior to demolition/clearance. Should an occupied nest be found, a buffer zone would need to be created until the nest is no longer in use.

Great Crested Newt (GCN) – **Unlicensed Method Statement**

No further surveys are necessary, however as there is some suitable habitat and refugia on site it is recommended that works are carried out under an unlicensed method statement.

Reptiles – **Presence/ likely absence surveys** for reptiles are required to establish if any reptile species are using the site. These will be undertaken between the months of March and October. Bitumen tiles will be placed across the site in week one and will then be checked once a week over a seven-week period, in suitable weather (9ºC to 18ºC, no rain, little winds and sunny).

Habitats – All habitats on site are common and widespread, no impacts foreseen. The site is located adjacent to the Moor Mill South LWS on the northern and western boundaries, with further green space along the eastern boundary. Therefore, it is recommended that dust screens be erected around the construction zone on site to prevent the spread of dust and debris into the neighbouring habitats.

The findings outlined in this report are valid for one year, after which updated surveys will be required.

Enhancements and mitigation are recommended (please see Section 4.4 for further details).

1.0 Introduction

1.1 Aim

The aim of this report is to inform of ecological constraints that may affect the development proposals and recommend to the client if further surveys are required for protected species. An impact assessment is undertaken at this stage; however, if further surveys are required, additional and unexpected impacts may result.

1.2 Background Information

The client, Smug Oak Lane limited, has commissioned Cherryfield Ecology to undertake an EA for the site of Smug Oak Lane, Bricket Wood, St Albans, AL2 3PN. Planning permission is being sought for the demolition of the existing building and the construction of 9 residential dwellings.

This survey has checked all habitats, buildings, trees (from ground level only) or structures due to be affected by the proposals on site; it includes checking for protected species, signs of protected species or habitat value e.g. crevices, badger setts, ponds etc. as well as mapping the habitats on site.

The inspection was conducted on the 06/02/2023.

The survey can only ever provide a 'snapshot' of the site at the time of the survey and circumstances may change following this report. Health and Safety restrictions or obstructions may limit the ability to find evidence.

Biological records have been requested to give the report context and allow a study of the surrounds. The information is often sensitive and therefore a synopsis is provided.

The survey can be conducted year-round with the optimal period between mid-March and mid-October (south)/1st April and 30th September (north). However, it can be limited due to bad weather and in the winter, when some species are not as active, thus evidence and species are often not found. During these periods, habitat value (likely presence) becomes more important to the assessment of the site.

Summary of legislation and National Planning Policy that protects wildlife in England:

- The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019.
- Wildlife and Countryside Act 1981 as amended.
- Countrywide and Rights of Way Act 2000.
- Natural Environment and Rural Communities Act 2006.
- National Planning Policy Framework ("NPPF").
- Circular 06/05.

This legislation makes it illegal to:

- Intentionally or deliberately kill, injure or capture a protected species.
- Deliberately disturb a protected species, whether at rest or not.
- Damage, destroy or obstruct access to a resting place.
- Possess or transport a protected species or any part of that species, unless acquired legally.
- Sell, barter or exchange a protected species, or any part of a species.

1.3 Species Specific Information

All UK protected species have the same protection and the detail under Bats also applies to GCN, Dormouse, Otters and the two UK protected reptiles.

1.3.1 Breeding Birds

All nesting birds are protected under the Wildlife and Countryside Act (as amended) 1981, which makes it an offence to intentionally kill, injure or take any wild bird or take, damage or destroy its nest whilst in use or being built, or take or destroy its eggs. Furthermore, a number of birds enjoy further protection under that Act and are listed on Schedule 1 of the Act. These further protected birds are also protected from disturbance and it may be necessary to operate a "no-go" buffer zone around such nests – typically out to 5m.

1.3.2 Bats

All 18 species of bat common in the UK (17 known to be breeding) are fully protected under the Wildlife and Countryside Act (as amended) 1981 through inclusion in Schedule V of the Act. All bat species in the UK are also included in Schedule II of The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019, which transpose Annex II of the Directive 92/43/EEC 1992 on the Conservation of Natural Habitats and of Wild Fauna and Flora ("Habitats Directive") which defines United Kingdom protected species of animals.

Bats species are afforded further protection by the Countryside and Rights of Way Act 2000; and the Natural Environment and Rural Communities Act 2006.

This combined legislation makes it an offence to:

- Intentionally or deliberately kill, injure or capture bats.
- Deliberately disturb bats, whether at roost or not.
- Damage, destroy or obstruct access to bat roosts.
- Possess or transport bats, unless acquired legally.
- Sell, barter or exchange bats.

1.3.3 Reptiles

There are six species of reptiles in Great Britain (Edgar *et al*. 2010) and four of these are commonly found; the Grass Snake *Natrix natrix* and/or the Barred Grass Snake *Natrix helvetica),* Adder *Vipera berus*, Common Lizard *Zootoca vivipara* and Slow Worm *Anguis fragilis*.

All native British species of reptiles are legally protected through their inclusion in Schedule V of the Wildlife and Countryside Act 1981. As such, all species are protected from deliberate killing or injury. Therefore, where development is permitted, and there will be a significant change in land use, a reasonable effort must be undertaken to avoid committing an offence. The same act makes the trading of native reptile species a criminal offence without appropriate licensing.

Two species of reptile; the Smooth Snake *Coronella austriaca* and Sand Lizard *Lacerta agilis* are further protected under The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019, which defines UK protected species of animals ("rare reptiles").

1.3.4 Badgers

Badger *Meles meles* and its habitat are protected under The Protection of Badgers Act 1992, Schedule V of the Wildlife and Countryside Act 1981, and Appendix III of the Bern Convention 1979.

This legislation makes it an offence to:

- Kill, injure, take or possess a badger.
- Interfere with, damage or destroy a badger sett including e.g. obstruct access to a badger sett.
- Cruelly treat or harm a badger.
- Disturb a badger in a sett.

1.3.5 Great Crested Newts

Great Crested Newts (GCN) *Triturus cristatus* are listed in both The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 and in Schedule V of the Wildlife and Countryside Act 1981.

GCN are afforded further protection by the Countryside and Rights of Way Act 2000; and the Natural Environment and Rural Communities Act 2006.

1.3.6 Otter

The Eurasian Otter *Lutra lutra* is the only Otter species native to the UK. The Eurasian Otter is fully protected under Schedule V of the Wildlife and Countryside Act (as amended) 1981 and in Schedule II of The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019, which transpose Annex II of the Directive 92/43/EEC 1992 on the Conservation of Natural Habitats and of Wild Fauna and Flora

("Habitats Directive") which defines United Kingdom protected species of animals. This legislation makes it illegal to:

- capture, kill, disturb or injure otters (on purpose or by not taking enough care).
- damage or destroy a breeding or resting place (deliberately or by not taking enough care).
- obstruct access to their resting or sheltering places (deliberately or by not taking enough care).
- possess, sell, control or transport live or dead otters, or parts of otters.

1.3.7 Water Vole

The Water Vole *Arvicola amphibius* are protected under Schedule V of the Wildlife and Countryside Act 1981 and is a priority conservation species. This legislation makes it illegal to:

- intentionally capture, kill or injure water voles.
- damage, destroy or block access to their places of shelter or protection (on purpose or by not taking enough care).
- disturb them in a place of shelter or protection (on purpose or by not taking enough care).
- possess, sell, control or transport live or dead water voles or parts of them (not water voles bred in captivity).

1.4 Protected Sites and Priority Habitats

Some areas with distinctive plants, animals, habitats, geology or landforms are protected at the international, European, national and local level under statutory and non-statutory sites. Some habitats have been identified as needing priority conservation action; UK BAP Priority Habitats are a range of semi-natural habitat types that are identified as being the most threatened and requiring conservation action.

If a statutory site, non-statutory site or UK priority habitat is to be affected in proposed development, details will be outlined below:

There are no protected sites or priority habitats located within the site boundary.

2.0 Methods

The survey follows the national guidelines JNCC (2010), and the following equipment is available for the inspection:

- Torches (e.g. LED Lensar type).
- Ladders (Standard 4m telescopic surveying ladder).
- Endoscope where holes, cracks and crevices are accessible.
- Mirrors (extendable and movable mirror face).
- Binoculars (Pentax close focus).
- Thermometer/hygrometer.
- Camera.
- Sample bags for collecting dropping and feeding evidence.

Target notes are made when appropriate to highlight, for example, protected species or an 'other feature(s)' of ecological note.

If a deviation from the guidelines has been made the reason and justification will be explained below:

No deviation from the standard guidelines has been made for this survey.

2.1 Limitations

This survey provides a snapshot of the site at the time of the survey only. Species are highly mobile and can turn up from time to time unexpectedly. All care has been taken to ensure the results and recommendations are suitable to the context of the development and the information gathered on surveys.

Table 1: Habitat value (likelihood) of protected species presence assessed against Collins (2016), Edgar *et al* (2010) and Natural England (2007) etc.

Likelihood of species presence (Habitat Value)	Features that species can use, regardless of evidence being present.
Confirmed Presence	Species are found to be present during the survey. Evidence of species is found to be present during the survey.
Higher likelihood of presence	Buildings, trees or other structures with features of particular significance for use by protected species e.g. nesting habitat, roosting opportunities, and ponds. Habitat of high quality for foraging e.g. broadleaved woodland, tree-lined watercourses and grazed parkland. Site is connected with the wider landscape by strong linear features that would be used by commuting species e.g. river and or stream valleys and hedgerows. Site is close to known locations of records for protected species.
Moderate and Lower likelihood of species presence	Several potential habitat opportunities in buildings, trees or other habitats. Habitat could be used for foraging e.g. trees, shrub, grassland or water. Site is connected with the wider landscape by linear features that could be used by commuting species e.g. lines of trees and scrub or linked back gardens. A small number of less significant habitat opportunities. Isolated habitat for foraging e.g. a lone tree or patch of scrub. An isolated site not connected by prominent linear landscape features.
Negligible likelihood of species presence	No features suitable for roosting, minor foraging or commuting.

3.0 Results

The following section details the results of the desk study, inspection and survey; it includes MAGIC information, biological records data and map/aerial photo information. The results detail the building, structure or tree (numbered for reference) description of any evidence found and habitat value if no evidence has been located.

3.1 Desk Study

The desk study is centered on Grid Reference – TL148022 and Postcode – AL2 3PN.

Table 2: Weather Records

Temperature	2°C
Cloud cover	40%
Precipitation	None
Wind	1/12

3.2 MAGIC

The following statutory sites and Natural England Protected Species (NEPS) have been located within the 2km search area (Figure 1).

- There are two statutory sites located within the search area:
  - Bricket Wood Common(SSSI)
  - Moor Mill Quarry, West (SSSI)
- There are seven NEPS licences granted for bats and GCN within the search area:
  - Brown Long-Eared *Plecotus auritus,* Common Pipistrelle *Pipistrellus pipistrellus* and Soprano Pipistrelle *Pipistrellus pygmaeus*, approx. 900m from the site (Licence 2019-39056).
  - Soprano Pipistrelle, approx. 950m from the site (Licence 2019-39750)
  - Common Pipistrelle, approx. 350m from the site (Licence 2010-2620)
  - Common Pipistrelle, approx. 1700m from the site (Licence 2010-1663)
  - Great Crested Newt *Triturus cristatus*, approx. 1700m from the site (Licence 2015-16251)

- Great Crested Newt, approx. 450m from the site (Licence 2009-1313)
- Great Crested Newt, approx. 350m from the site (Licence 2009-690)

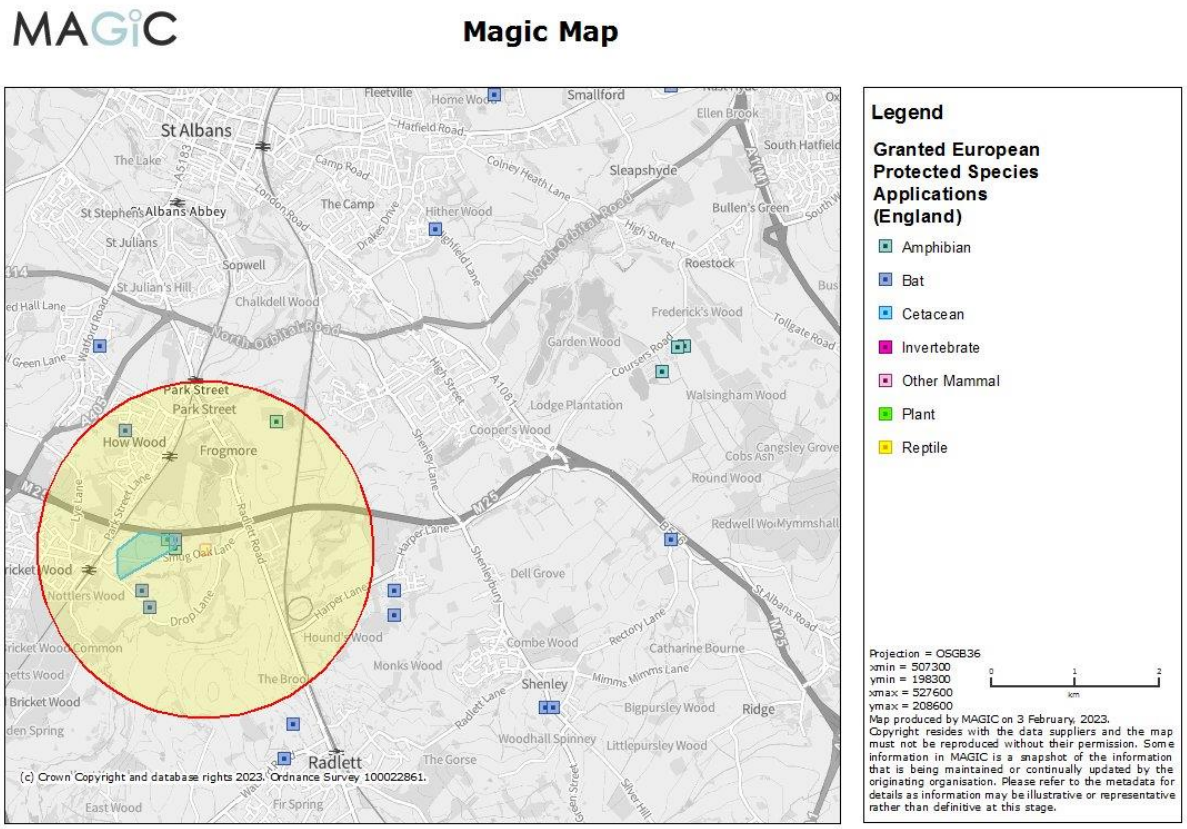


Figure 1: Magic Map Search

3.3 Biological Records Data

A standard 1km data search of existing records for protected species and nature reserves has been commissioned, below details the results and site context.

Biological records were obtained from Herts Environmental Record Centre (2023). The records show that the site is located adjacent (on the northern and western boundaries) to the Local Wildlife Site (LWS) of Moor Mill South. Further information is found in Table 3 below.

Table 3: Biological Records

Species	Number of Records	Closest Record (accuracy)	Most Recent Record (year)
Amphibians			
Common Toad *Bufo bufo*	5	0m (10km)	2016
Great Crest Newt *Triturus cristatus*	23	0m (1km)	2012
Bats			
Barbastelle *Barbastella barbastellus*	1	160m (1km)	2012
Brown Long-Eared *Plecotus auritus*	10	160m (1km)	2018
Common Pipistrelle *Pipistrellus pipistrellus*	43	0m (1km)	2021
Daubenton's *Myotis daubentonii*	9	160m (1km)	2018
Leisler's *Nyctalus leislerii*	1	160m (1km)	2012
Nathusius' Pipistrelle *Pipistrellus nathusii*			
Natterer's *Myotis nattererii*	15	160m (1km)	2018
Noctule *Nyctalus noctula*	19	150m (1km)	2013
Serotine *Eptesicus serotinus*			
Soprano Pipistrelle *Pipistrellus pygmaeus*	29	0m (1km)	2013
Unidentified Bat *Chiroptera sp.*	16	150m (1km)	2020
Unidentified Long-Eared *Plecotus sp.*	4	160m (1km)	2012
Unidentified Myotis *Myotis sp.*	13	160m (1km)	2012
Unidentified Pipistrelle *Pipistrellus sp.*	2	160m (1km)	2012
Unidentified Vesper *Vespertilionidae*			
Whiskered *Myotis mystacinus*			
Mammals (exc. Bats)			
Badger *Meles meles*	21	0m (2km)	2019
Hazel Dormouse *Muscardinus avellanarius*	1	0m (2km)	1985
West European Hedgehog *Erinaceus europaeus*	14	0m (2km)	2020
Otter *Lutra lutra*			
Water Vole *Arvicola amphibius*	12	0m (10km)	2014
Reptiles			
Adder *Vipera berus*			
Common Lizard *Zootoca vivipara*	1	50m (2km)	1985
Grass Snake *Natrix helvetica*	8	0m (10km)	2018
Slow-Worm *Anguis fragilis*	4	50m (2km)	2019
Other			
Birds, Invertebrates, Plants etc.	4359	N/A	N/A

Non-Statutory Sites (See Figure 2). Those in bold are located adjacent to the site.			
Name	**Reference No.**	**Type**	**Description/designated for**
Blackgreen Wood	76/014	Local Wildlife Site (LWS)	Ancient semi-natural acidic Sessile Oak (Quercus petraea)/Hornbeam (Carpinus betulus) woodland dissected by a motorway. Pedunculate Oak (Quercus robur) and the hybrid oak (Q. x rosacea) are also recorded along with Hazel (Corylus avellana) coppice, birch (Betula spp.) and Holly (Ilex aquifolium). A diverse ground flora has been recorded, with Bluebell (Hyacinthoides non-scripta) dominant. Other species noted include Common Cow-wheat (Melampyrum pratense), Pill Sedge (Carex pilulifera), Wood Sorrel (Oxalis acetosella), Yellow Pimpernel (Lysimachia nemorum), Broad Buckler-fern (Dryopteris dilatata), Remote Sedge (Carex remota) and Goldilocks Buttercup (Ranunculus auricomus). Wildlife Site criteria: Ancient Woodland Inventory site; woodland indicators.
Nottlers Wood	76/018	LWS	Ancient semi-natural Pedunculate Oak (Quercus robur)/Hornbeam (Carpinus betulus) woodland with a ground flora dominated by Bluebell (Hyacinthoides non-scripta) and Dog's Mercury (Mercurialis perennis). A Hawthorn (Crataegus monogyna)/Hornbeam hedge is present to the boundary. Wildlife Site criteria: Ancient Woodland Inventory site.

Frogmore Gravel Pit	76/023/02	LWS	Former gravel workings supporting a mosaic of habitats including rough grassland, a reach of the River Ver, flooded gravel pit lakes, permanent and temporary pools and dry to wet secondary broadleaved woodland and scrub. The grassland is moderately diverse in places with a number of uncommon species recorded including Grass Vetchling (Lathyrus nissolia), Pyramidal Orchid (Anacamptis pyramidalis) and Bee Orchid (Ophrys apifera). Additional species recorded include Pepper-saxifrage (Silaum silaus), Common Knapweed (Centaurea nigra), Meadow Vetchling (Lathyrus pratensis) and Bird's-foot Trefoil (Lotus corniculatus). The damp hollows/pools and ditches within the site are of particular interest supporting a varied flora, with records for Grey Club-rush (Schoenoplectus tabernaemontani), Small Sweet-grass (Glyceria declinata), Small Pondweed (Potamogeton berchtoldii), Lesser Spearwort (Ranunculus flammula) and Marsh Speedwell (Veronica scutellata). These ephemeral/permanent areas of water are considered importance for freshwater invertebrates and breeding Great Crested Newt (Triturus cristatus) have been recorded. The lakes and the river banks support a good diversity of

			marginal/aquatic species. The adjacent wet woodland and scrub is dominated by willows (Salix spp.) with additional species, such as Sycamore (Acer pseudoplatanus), Pedunculate Oak (Quercus robur) and birches (Betula spp.), more prominent on the higher, drier ground to the eastern and western edges. Planted Hybrid Black Poplar (Populus x canadensis) is occasional to locally dominant. Hyde Lane with its wooded banks supports relatively ancient vegetation, including a wide diversity of shrubs and trees. Wildlife Site criteria: Mosaic; Grassland indicators.
Moor Mill & Park Street Pits West Grassland	76/023/04	LWS	
Jack William's Wood & New Plantation	76/025	LWS	Old/ancient damp semi-natural species-rich broadleaved woodland with some plantation. The woodland is composed of abundant Pedunculate Oak (Quercus robur) and Ash (Fraxinus excelsior) with frequent Hornbeam (Carpinus betulus), Silver Birch (Betula pendula), Hazel (Corylus avellana), Hawthorn (Crataegus monogyna) and Holly (Ilex aquifolium). There is also the occasional Beech (Fagus sylvatica) and Field Maple (Acer campestre). The ground flora supports woodland indicators with abundant Bluebell (Hyacinthoides non-scripta) and Dog's Mercury (Mercurialis perennis). Addition

			species recorded including Yellow Archangel (Lamiastrum galeobdolon), Broad Buckler-fern (Dryopteris dilatata), Moschatel (Adoxa moschatellina), Wood Melick (Melica uniflora) and Goldilocks Buttercup (Ranunculus auricomus). Wildlife Site criteria: Part old/ancient woodland with a semi-natural canopy and field evidence suggesting an ancient origin; part shown on Bryant's map (1822); woodland indicators.
Moor Mill South	**76/026**	**LWS**	**Infilled gravel pit with a species diverse flora. The main habitat, rough part damp grassland, is moderately species-rich with several uncommon plants recorded such as Grass Vetchling (Lathyrus nissolia), Common Yellow Sedge (Carex viridula spp. oedocarpa), Prickly Sedge (Carex muricata), Oval Sedge (Carex ovalis) and Bee Orchid (Ophrys apifera). Scrub of willow (Salix spp.), including Almond Willow (Salix triandra), Pedunculate Oak (Quercus robur) and Hawthorn (Crataegus monogyna) is present. There is a pond in the south that has developed on an impermeable base of acidic clay, with records for Greater Spearwort (Ranunculus lingua), Common Spike-rush (Eleocharis palustris) and Bulrush (Typha latifolia). A deepened ditch with a stream borders the western**

			edge of the site. By the ditch is an old hedge bank which contains some Short-styled Field Rose (Rosa stylosa), a Herts Rare species. Great Crested Newts (Triturus cristatus) have been recorded from the site. Wildlife Site criteria: Grassland indicators.
Ashdale	76/056	LWS	Remnant of ancient semi-natural broadleaved woodland composed of mainly Pedunculate Oak (Quercus robur) and Ash (Fraxinus excelsior) with some Silver Birch (Betula pendula) plus locally frequent Hazel (Corylus avellana) coppice. Several broadleaved species have been planted including Beech (Fagus sylvatica), Horse-chestnut (Aesculus hippocastanum) and Norway Maple (Acer platanoides). The scrub layer is dense in places and dominated by Elder (Sambucus nigra) and Hawthorn (Crataegus monogyna). The ground flora is reasonably diverse with a number of woodland indicators recorded including Bluebell (Hyacinthoides non-scripta), Wood Sedge (Carex sylvatica), Wood Meadow-grass (Poa nemoralis), Sanicle (Sanicula europaea) and Broad Buckler-fern (Dryopteris dilatata). A ditch and bank with an old laid Hornbeam (Carpinus betulus) and Beech hedge is present along the northern margin. Yellow Pimpernel has been noted along the ditch. Wildlife Site criteria: Ancient

			woodland with a semi-natural canopy and field evidence suggesting an ancient origin; shown on Bryant's map (1822); woodland indicators.
Grassland North of Nottlers Wood West	76/058/01	LWS	Semi-improved rough neutral grassland supporting a moderate diversity of grasses and herbs. The northern part of the site is becoming dominated by scrub, including Ash (Fraxinus excelsior) and Pedunculate Oak (Quercus robur). Species recorded in the sward include Meadow Buttercup (Ranunculus acris), Common Knapweed (Centaurea nigra), Meadow Vetchling (Lathyrus pratensis), Common Sorrel (Rumex acetosa), Hairy Sedge (Carex hirta) and Bugle (Ajuga reptans). The scrubby eastern border supports Silver Birch (Betula pendula) with Blackthorn (Prunus spinosa), Goat Willow (Salix caprea), rose (Rosa agg.), Pedunculate Oak and Bramble (Rubus fruticosus agg.). Wildlife Site criteria: Grassland indicators.
Nottlers House Field	76/059	LWS	Old neutral grassland with a good mix of herb and grass species recorded including Sweet Vernal-grass (Anthoxanthum odoratum), Common Bent (Agrostis capillaris), Agrimony (Agrimonia eupatoria), Bird's-foot Trefoil (Lotus corniculatus), Common Sorrel (Rumex acetosa), Meadow Buttercup (Ranunculus acris), Meadow Vetchling (Lathyrus pratensis) and Common Knapweed

			(Centaurea nigra). Grass Vetchling (Lathyrus nissolia) has also been recorded. An ancient Hornbeam (Carpinus betulus) hedge is present along the south-west facing boundary. Wildlife Site criteria: Grassland indicators.
Grassland S. of Smug Oak Lane	76/073	LWS	Narrow strips of rank semi-improved neutral grassland along the valley of a small stream. The sward becomes more interesting at the southern end. Species recorded include Sweet Vernal-grass (Anthoxanthum odoratum), Common Knapweed (Centaurea nigra), Oxeye Daisy (Leucanthemum vulgare), Meadow Vetchling (Lathyrus pratensis), Lady's Bedstraw (Galium verum) and Burnet-saxifrage (Pimpinella saxifraga). The stream has good aquatic vegetation which includes Water-plantain (Alisma plantago-aquatica), Purple Loosestrife (Lythrum salicaria), Bulrush (Typha latifolia) and Floating Sweet-grass (Glyceria fluitans). Wildlife Site criteria: Grassland indicators.
Bricket Wood, St Lawrence Way Area	76/075	LWS	Building and environs important for protected species. Wildlife Site criteria: Species.
Woods E. Bricket Wood	76/107	LWS	This site has been left as a result of removing SSSIs from Wildlife Sites. It will be reviewed once survey data and a site assessment have been carried out. Wildlife Site criteria: Buffers an SSSI.

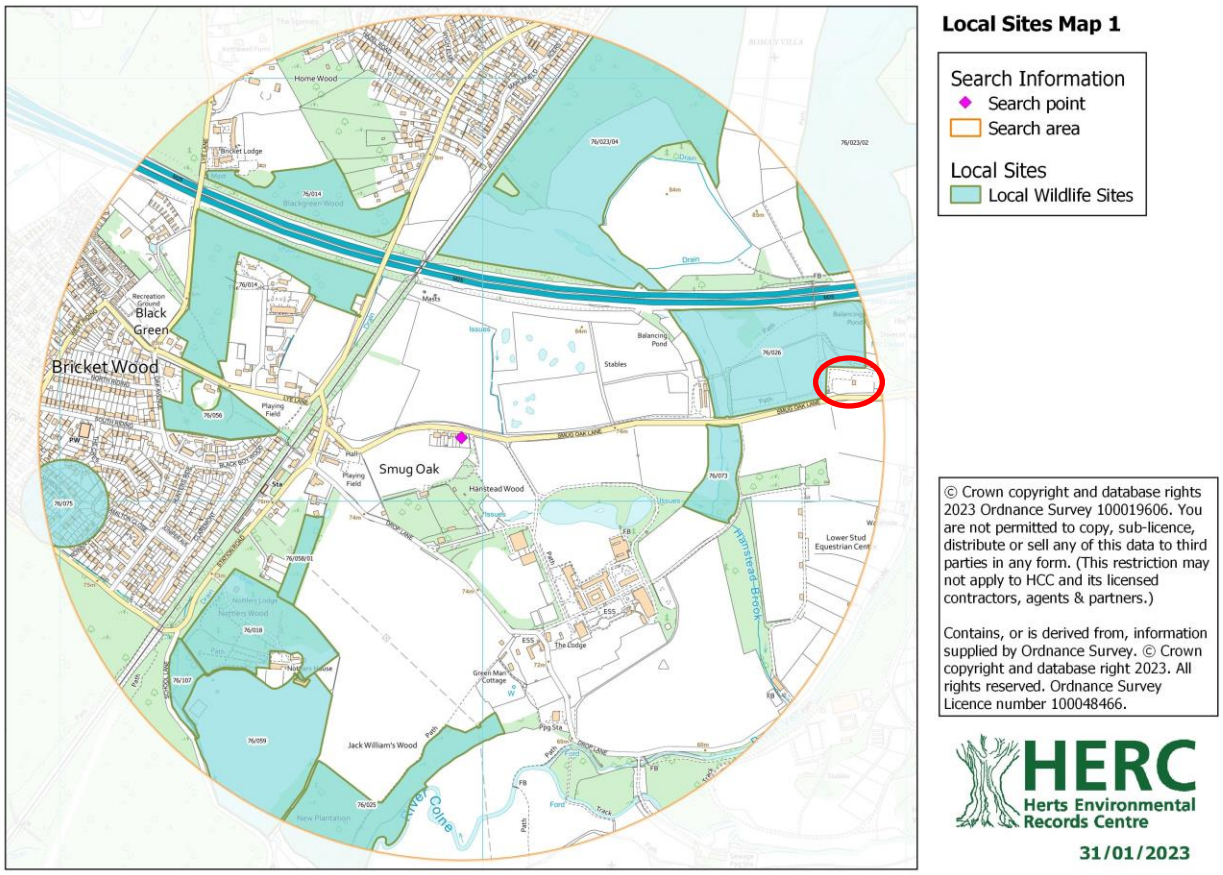


Figure 2: Non-Statutory Sites (HERC, 2023). Site indicated by red circle.

3.4 Site Location and Surrounds

The site is located in St Albans, Hertfordshire and is surrounded by pasture and arable fields in the immediate locale. Table 4 details the commuting, feeding and habitat features in a 1km radius of the site.

Table 4: Habitat features suitable for use by protected species.

Feature	Description
Water course	River Ver is located approx. 58m east at its closest point. River Colne is located approx. 1,000m south at its closest point.
Water bodies	A large water body is located approx. 550m southwest. A group of waterbodies are found approx. 840 to the north, on the other side of the M25. Other small water bodies are found throughout the search area, most connected via tributary to the River Ver, and none within 500m of the site.

Woodland	A small area of woodland is found adjacent to the east of the site. Larger woodlands are located approx. 176m southeast, 200m southwest and 275m north, on the other side of the M25.
Linear e.g. hedgerows	Two train tracks are located approx. 1,000m west and 900m east. The search area is dominated by field margin hedgerows.
Pasture/arable/grassland	The search area is dominated by pasture, with arable fields found to a slightly lesser extent.
Other	N/A

3.5 Habitat, Building, Tree or Other Structure

This section details the structures/habitat reference and descriptions (see Figure 21 for Site Plan).

3.5.1 Habitats

Habitats found on site are mapped using the Phase 1 Habitat (JNCC, 2010) and UK Hab (UK Hab, 2020). When the UK Hab has a subset type, this has been used to match as best as possible to the Phase 1 Habitat.

Table 5: Habitat features found on site, this includes for the Phase 1 Habitat type and the nearest UK Hab type. UK Hab may be broken down to subsets when required and if the habitat meets the criteria.

Habitat Features		
Phase 1 Habitat Type	**UKHab Habitat Type**	**Description**
Buildings	Buildings	There is one derelict building on site (B1), this is single-storey, brick built with a flat roof and no loft void. Access to the building was restricted due to the overgrown brambles, however, the interior of the building was able to be viewed through the large broken windows.

Figure 3: Front elevation of B1

Figure 4: Front and side elevation of B1

Figure 5: Side elevation of B1

Figure 6: View to rear elevation of B1

Figure 7: Example of the interior of B1

There are many other structures on site consisting of industrial skips and containers.

Figure 8: Example of skips and containers on site

		 Figure 9: Example of skips and containers on site
Hardstanding	Hardstanding	The access and center of the site is comprised of hardstanding.  Figure 10: Example of hardstanding on site

Scrub	Bramble Scrub	Much of the site has become overgrown with dense scrub, dominated by bramble and buddleia.  Figure 11: Dense scrub on site  Figure 12: Dense scrub on site

		 Figure 13: Dense scrub on site
Bare Ground	Bare Ground	Areas of bare ground exist between the containers on site, however, these are beginning to be colonised, predominantly by the buddleia and teasel.  Figure 14: Bare ground

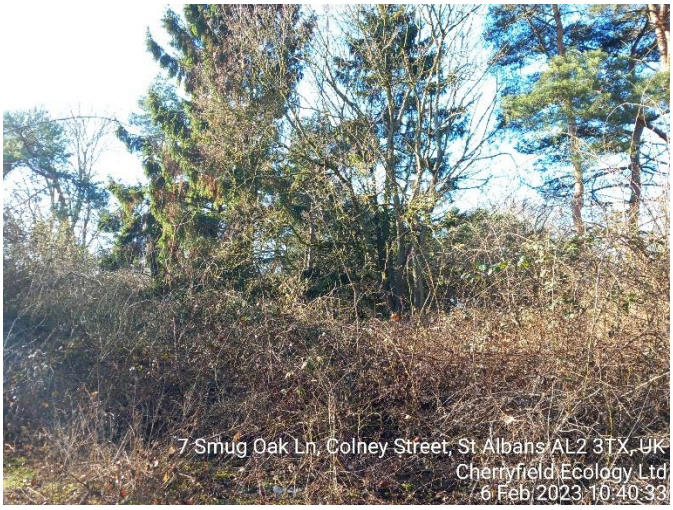
Hedgerow Features		
Phase 1 Habitat Type	**UKHab Type**	Description
Trees	Line of Trees	A line of trees is present along part of the northern boundary of the site.  Figure 15: View towards line of trees on northern boundary
	Line of Trees with Bank or Ditch	A line of conifers is found running through the site and encompassed within dense scrub. These are situated on a slight bank which runs along the southern boundary of the site and slightly in towards the center.  Figure 16: Line of conifer trees within the dense scrub

		 Figure 17: View down from the slight bank that the conifers are on A short line of trees, including sycamore, is found along part of the southern boundary of the site, along the road side, which are also found on the slight bank.

Table 6: Target Notes

Target Note	Description
T1	There are many rubble, log and debris piles found on site, in between the skips and containers and amongst the scrub.  Figure 18: Rubble pile on site

Figure 19: Log and debris pile on site

Figure 20: Debris pile on site

3.6 Species List

Table 7: Species found on site with relevant *DAFOR abundance.

Common Name	Scientific Name	*DAFOR Scale	Habitat Type
Bramble	*Rubus fruticosus agg*	D	Scrub
Bristly Oxtongue	*Picris echioides*	R	Bare Ground
Buddleia	*Buddleja davidii*	D	Bare Ground/ Scrub
Dock	*Rumex* sp.	O	Scrub

Dogwood	*Cornus sanguinea*	O	Scrub
Elder	*Sambucus nigra*	O	Scrub
Foxglove	*Digitalis*	R	Bare Ground
Lesser Burdock	*Arctium minus*	R	Bare Ground
Mullein	*Verbascum sp.*	F	Scrub
Nettle	*Urtica dioica*	F	Scrub
Sycamore	*Acer pseudoplatanus*	O	Line of Trees
Wild Teasel	*Dipsacus fullonum*	O	Bare Ground/ Scrub

*DAFOR – Dominant, Abundant, Frequent, Occasional and Rare

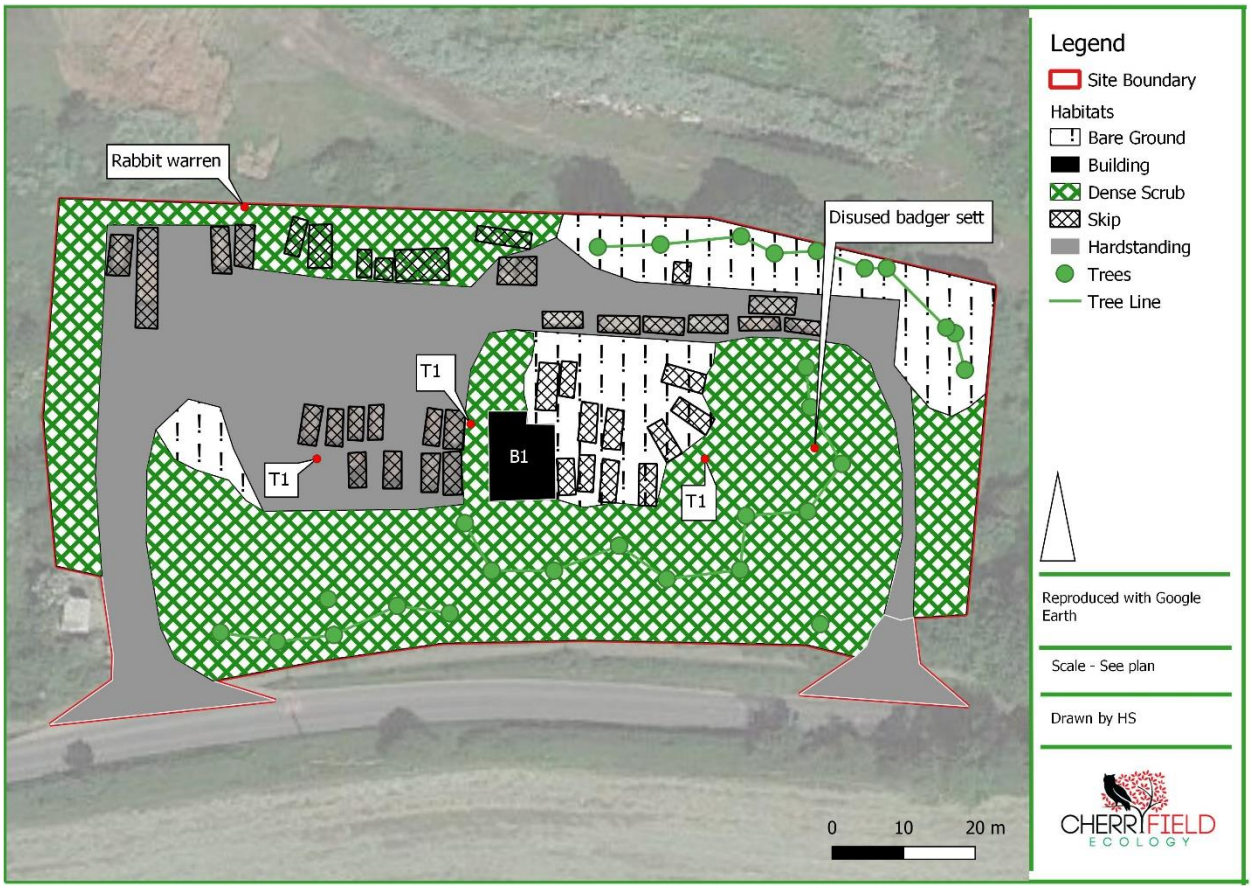


Figure 21: Site Plan

3.7 Evidence or Likelihood of Species Presence

This section details the evidence located and likelihood of species presence.

3.7.1 Bats

Table 8: Bats, evidence or the potential for the species.

Bats found	No bats were found at the time of the survey.
Evidence of bat use	No evidence of bats was found at the time of the survey.
Potential for bat use	Level of likelihood of presence – B1 – Low There were few features observed on the exterior of the building that would be suitable for roosting bats, however, there is open access to the building through the open windows and through a hole in the brickwork on the eastern elevation. As access to the building was restricted at the time of the survey, the interior of the building could not be fully assessed.  Figure 22: Hole in the eastern elevation of B1 The surrounding habitat provides high potential for foraging and commuting purposes.

3.7.2 Badgers

Table 8: Badgers, evidence or the potential for the species

Badgers found	No badgers were found at the time of the survey.
Evidence of badger use	[redacted]
Potential for badger use	Level of likelihood of presence – Currently Low [redacted]

3.7.3 Breeding Birds

Table 9: Breeding birds, evidence or potential for the species

Breeding birds found	No breeding birds were found at the time of the survey.
Evidence of breeding bird use	No evidence of breeding birds was found at the time of the survey.
Potential for breeding bird use	Level of likelihood of presence – High The tree and shrub habitats on site are suitable for breeding birds.

3.7.4 Amphibian

Table 10: Amphibians, evidence or potential for species use.

Amphibians found	No Great Crested Newt (GCN) were found at the time of the survey.
Evidence of amphibian use	No evidence of GCN was found at the time of the survey.
Potential for amphibian use	Level of likelihood of presence – Low The nearest water body is approx. 540m to the southwest of the site, however, there are several records of GCN within 1km of the site. There is suitable terrestrial habitat on site for GCN and numerous refuges found in the debris and log piles.

3.7.5 Reptile

Table 11: Reptiles, evidence or potential for species use.

Reptiles found	No reptiles were found at the time of the survey.
Evidence of reptile use	No evidence of reptiles was found at the time of the survey.
Potential for reptile use	Level of likelihood of presence – High The scrub and numerous refuges found on site provide suitable habitat for reptiles, and there is good connectivity to other more suitable habitats, particularly as the site is located near to the River Nene (approx. 80m to the east).

3.7.6 Other Species e.g. Hazel Dormouse / Otter / Water Vole

Table 12: Other protected species, evidence or potential for species use.

Species found	No other protected species were found at the time of the survey.
Evidence of species use	No evidence of other protected species was found at the time of the survey.
Potential for species use	Level of likelihood of presence – Negligible There is no habitat on site suitable for any other protected species. Evidence of deer, rabbit and suspected tawny owl were present on site in the form of droppings, a rabbit warren on the northern boundary of the site and an old, disintegrated owl pellet situated beneath a conifer.

Figure 24: Old owl pellet on site

3.7.7 Invasive Non-Native

No invasive non-native species were found at the time of the survey.

4.0 Conclusions, Discussion, Impacts and Recommendations

The following section details the conclusions, discussion, impacts and recommendations in the context of the proposed works.

4.1 Conclusion and Discussion

The proposals include for the demolition of the existing building and the construction of 9 residential dwellings.
The site consists of one detached single-storey building, several industrial containers, bare ground, scrub and trees.

4.2 Potential Impacts

Impact assessments must be proportionate to the scale of the development (CIEEM, 2018) and Table 13 details a proportionate impact assessment based on current information.

Table 13: Impact Assessment

Impact	Bats - A bat roost may be lost in the development. Breeding Birds – Active nests may be lost in the development. GCN – Minor loss of habitat. Reptiles – Loss of habitat.
Characterisation of unmitigated impact on the feature	Bats - A low-level loss/impact at a local level. Breeding Birds – A low-level loss/impact at a local level. GCN – A low-level loss/impact at a local level. Reptiles - A low-level loss/impact at a local level.
Effect without mitigation	Without mitigation individual bats, birds, GCN and reptiles could be killed, injured or trapped during the works.
Mitigation and/or potential enhancement	See Table 14 and Table 15
Significance of effects of residual impacts (after mitigation)	Bats - If lost roosts are replaced by bat boxes, the effects would be negligible. Breeding Birds – If lost habitat is replaced by bird boxes and mitigation is followed, the effects would be negligible.

	GCN – If mitigation is followed, the effects would be negligible. Reptiles – If mitigation is followed, the effects would be negligible.

4.3 Recommendations

Badger – No further surveys are necessary; however, due to the historical evidence of badgers on site and how dense the scrub is (which could obscure further evidence), it is recommended that [redacted] prior to development commencing for any signs of recent activity and that an ecologist be on site to supervise the clearance of the surrounding scrub habitat.

Bats – **Presence/Likely Absence surveys** will be required (one survey, followed by two further surveys if bats are found to the present, a minimum of two weeks apart).

A total of three surveyors to cover B1 will be required. This survey must be undertaken within the May to September window (with September considered sub-optimal). Any further surveys will need to be undertaken during the optimal timeframe of mid-May to August.

Breeding Birds - No further surveys are recommended; however, the development should take place outside the nesting season (March to August). If this is not possible, it is recommended that a qualified ecologist is on site to ensure the building/vegetation is not occupied by breeding birds, prior to demolition/clearance. Should an occupied nest be found, a buffer zone would need to be created until the nest is no longer in use.

Great Crested Newt (GCN) – **Unlicensed Method Statement**

No further surveys are necessary, however as there is some suitable habitat and refugia on site it is recommended that works are carried out under an unlicensed method statement.

Reptiles – **Presence/ likely absence surveys** for reptiles are required to establish if any reptile species are using the site. These will be undertaken between the months of March and October. Bitumen tiles will be placed across the site in week one and will then be checked once a week over a seven-week period, in suitable weather (9ºC to 18ºC, no rain, little winds and sunny).

Habitats – All habitats on site are common and widespread, no impacts foreseen. The site is located adjacent to the Moor Mill South LWS on the northern and western boundaries, with further green space along the eastern boundary. Therefore, it is recommended that dust screens be erected around the construction zone on site to prevent the spread of dust and debris into the neighbouring habitats.

4.4 Recommended Enhancements and Mitigation

Table 14: Recommended Mitigation

Work	Specification
General Information	No development will occur until bat surveys consistent with the Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edition) (Collins et al. 2016) have been undertaken in the appropriate survey season, May to September (Mid-May to August optimal). The Three Tests to be answered before planning can be granted (NE, 2017): *Test 1:* Regulation 53(2)(e) states: a licence can be granted for the purposes of "preserving public health or public safety or other imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequences of primary importance for the environment". Test 1 can be achieved via the 'imperative reasons of overriding public interest'. Although not for the ecologist to determine the planning officer will on grant of consent. *Test 2*: Regulation 53(9)(a) states: the appropriate authority shall not grant a licence unless they are satisfied "that there is no satisfactory alternative" Test 2 would be achieved on the grant of consent as no other sites have been considered for the development. *Test 3:* Regulation 53(9) (b) states: the appropriate authority shall not grant a licence unless they are satisfied "that the action authorised will not be

	detrimental to the maintenance of the population of the species concerned at a favourable conservation status in their natural range." Test 3 will be achieved once full emergence/re-entry surveys are conducted and full mitigation appropriate to species and population has been designed and implemented via an NEPS licence issued from the statutory authority (Natural England), if this becomes necessary following a dusk and pre-dawn survey.
Mitigation	Based on Mitchell – Jones, (2004), ***subject to change following surveys.*** Under license demolition of suitable bat roosting features will require the supervision of a bat licensed ecologist. The suitable bat roosting features will be stripped by hand only. All areas across the roof/wall tops/weatherboarding etc. will be checked for bats i.e. endoscope (where possible) and via destructive search. If bats are found, these will be removed by hand (Ecologist only) and placed in bat boxes that will be in place before works begin. Bat boxes will be installed. These will be no less than 3m above ground level and away from any neighbouring ledge to prevent local cats predating on bats using the boxes. A minimum of one Chillon Woodstone bat box(es) or similar boxes (Figure 25) will be hung on the trees at a minimum of 3m from ground level and face south/southwesterly. These boxes are known to be used by crevice and void dwelling species.  Figure 25: Chillon Woodstone bat box (British made)

	Commuting bats may be using the grounds and surrounds – therefore, any tree, hedges or linear feature should be retained were possible.
Roof and Tile Linings	Bitumen Felt - When a bat roost is present and being mitigated/compensated we only recommend this type of linear for the tiles/roof covering. There is no reason that building regulations will not allow a traditional 'cold roof' and, therefore, we recommend this as the best design for bats in any project where bats are able to access the roof/loft or hung tile/weather boarding etc. The reasoning for this is twofold; firstly, bats can damage the Modern Roofing Membrane (MRM) meaning that the MRM will become useless allowing water to pass through from above and, secondly, bats will become trapped in the fibres and die from dehydration and starvation. **However, Natural England will accept an MRM being used in a bat roost under the following circumstances -** **The MRM must have passed the testing regime set out in Essah *et al* (2020) and a certificate must be provided as proof of this. Assuming the certificate is provided with the license application, NE will issue/register the site.** **It is for the client to provide the certificate to the Ecologist applying for the license.**
Lighting	Any lighting near or shining onto any trees will be designed to minimise the impact it has on potential species and commuting. Lighting will be in line with the BCT lighting guidelines (Bats and Lighting in the UK (Bat Conservation Trust, 2018) *https://www.theilp.org.uk/documents/guidance-note-8-bats-and-artificial-lighting/* This lighting, where possible, will be of low level, be on downward deflectors and be on PIR sensors. Using LED directional lighting can also be a way of minimising the light spill affecting the habitat. No up-lighting should be used. Light spill must be minimised too as low as possible. This will ensure that the roosting and commuting resources that the bats are likely to be using is maintained.
Precautions to be undertaken during works.	The following must be undertaken:

	▪ All works must be undertaken within 12 months of this report, thereafter a material change check will be required to check for changes that could affect potential protected species habitat. ▪ If any protected species are found at any point whatsoever during works, works will stop and further advice will be sought. ▪ Trenches and open holes – All trenches and open holes should be covered overnight, or if the hole or trench can't be covered it should be filled in or a rough sawn timber plank installed as an escape route for any species. ▪ Similarly, any open pipework must be covered at the end of each work day to prevent animals from entering/ becoming trapped. ▪ Store all material on hardstanding or in buildings to prevent artificial refuges being created.

Table 15: The local authority has a duty to enhance biodiversity in its day-to-day duties; the following are suggested enhancements that are easily installed into a development and can be cost effective whilst ensuring a gain for local wildlife.

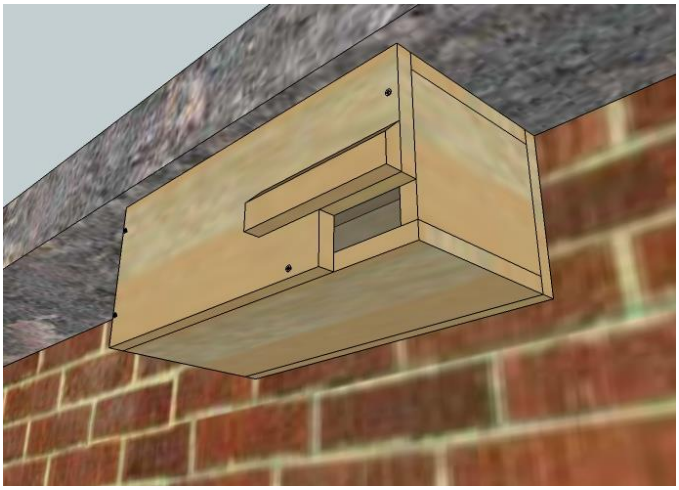
Work	Specification
Bat, bird and insect box enhancement.	Bat tubes can be installed into the new dwellings. A minimum of 6 bat tubes (Figure 26) can be installed into the gable ends of the new dwellings.  Figure 26: Bat tube Bird boxes for a variety of different species can also be installed.

	A selection of open fronted boxes and songbird boxes can be installed (Figure 27 and Figure 28); it is recommended that a minimum of two of each of the boxes are installed.  Figure 27: Robin box  Figure 28: Songbird box A variety of insect boxes can be installed in the area; a minimum of one box is recommended (Figure 29 and Figure 30).

<table>
<tr><td></td><td> 
Figure 29: Urban bee nesting box, used for solitary bees and wasps

 
Figure 30: Bug biome, ideal for ladybirds, lacewings and bees</td></tr>
<tr><td>Hedgehog highways and small mammal connectivity.</td><td>In order to allow hedgehogs and other small mammals a continuous corridor across the site, thus linking the garden and green spaces.
A 13cm-by-13cm is sufficient for any hedgehog to pass through. This will be too small for nearly all pets (Figure 31).
Remove a brick from the bottom of the wall, creating a 13cm-by-13cm hole.
Cut a small hole in your fence if there are no gaps.
Dig a channel underneath your wall, fence or gate.
Ideally, rather than walls or fences, a hedge will provide foraging, shelter and a route along as well as through the site.</td></tr>
</table>

	 Figure 31: Hedgehog Highway, *Source – Wildlife Trust - http://7474fab53f1b6ee92458-8f3ac932bad207a00c83e77eaee8d15c.r12.cf1.rackcdn.com/Hedgehog%20Highway.jpg*
Swifts *Apus apus*	Swift nest boxes are recommended due to the increased lack of nesting opportunities swifts are finding in modern built dwelling homes. Information is adapted from the RSPB https://www.rspb.org.uk/our-work/rspb-news/news/stories/swift-advice-for-ecologists/ and http://actionforswifts.blogspot.com The following will be undertaken: ▪ Wherever possible, swift bricks will be installed into new or restored buildings to increase the overall availability of nest sites for swifts and other species. Birds such as house sparrow can use swift bricks, but swifts cannot use house sparrow nest bricks. ▪ Integral swift bricks are the preferred option on new housing developments. These should be fitted in clusters of 2 to 4 on gable ends and near the roofline where swifts would naturally look for a potential nest site. ▪ Try to ensure swift bricks have a minimum of 5m clearance beneath and in front. Always avoid locating them above doors and windows to help prevent a disturbance issue to both the birds and human owners.

	▪ Alternatively, swift boxes can be placed on the external walls of a building when a restoration or opportunities don't exist to build in the boxes.  Figure 32: Example of swift bricks, that can be built into a dwelling, *Source:* *https://www.birdbrickhouses.co.uk/brick-nesting-boxes/*  Figure 33: Swift box, *source:* *http://actionforswifts.blogspot.com/p/diy-swift-box-designs.html*
Hedgerows	Hedgerows provide excellent corridors for wildlife and are extremely important to many species of wildlife. A hedgerow could be included in development plans to assist a range of species (Figure 34).

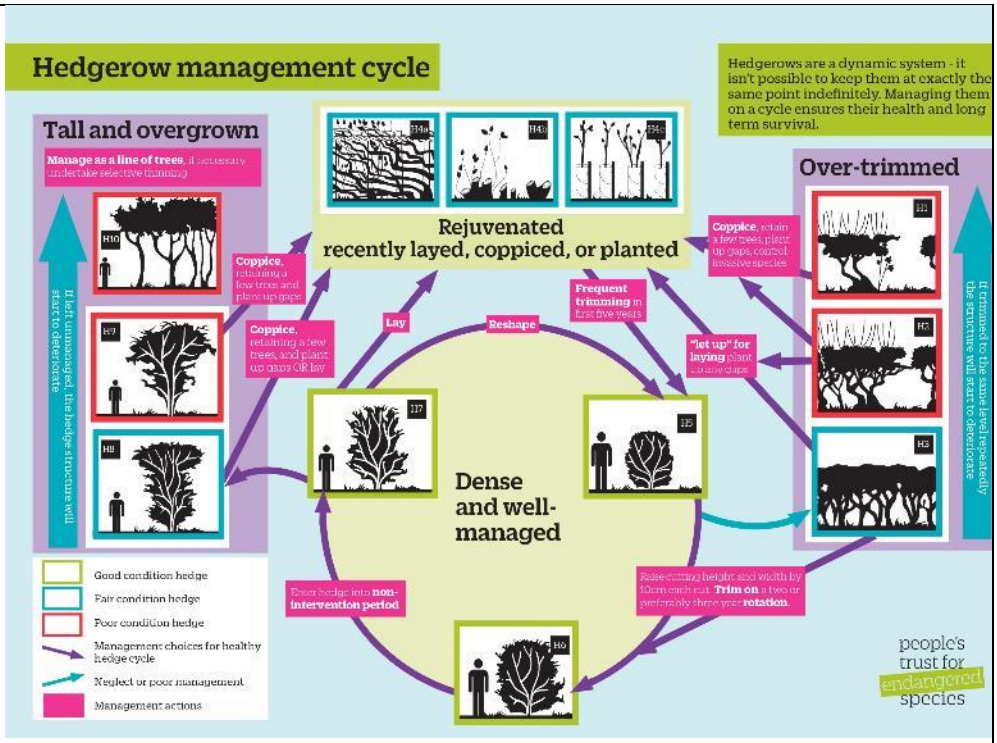


Figure 34: Hedgerow management cycle (https://hedgerowsurvey.ptes.org/)

It is recommended that a diversity of hedgerow species is included in the proposed hedgerows on site. Suitable hedgerow species include:

- Hawthorn (*Crateagus monogyna*)
- Hazel (*Corylus avellana*)
- Holly (*Ilex europaeus*)
- Wild Privet (*Ligustrum vulgare*)
- Field Maple (*Acer campestre*)
- Blackthorn (*Prunus spinosa*)
- Guelder Rose (*Viburnum opulus*)
- Wayfaring Tree (*Viburnum lantana*)
- Dog Rose (*Rosa canina*)
- Spindle (*Euonymus europaea*)
- Holly (*Ilex europaeus*)

The hedgerow should include 5 or more woody species within a 30m length in order to be classified as **species-rich**.

Where possible, no cutting will take place between during peak bird nesting season, which runs from March to September. Where possible, shrubs and

	hedgerows will not be cut back annually, as flower buds often form on second-year growth. Trimming hedges on a two-year or three-year rotation, targeting different sections each year, will make sure there are always flowers for pollinators in spring and berries for birds in autumn. Hedges cut every three years can produce two and a half times as much blossom as those cut annually. Rotational cutting can also save time and money that would be invested in annual cutting.
Reptiles Habitat Enhancement	Log and brash piles can enhance the existing habitat by providing cover for reptiles, as well as enhancing prey availability. Also, including reptile hibernacula and basking banks into development plans will enhance the habitat for reptiles. (Edgar et al., 2010).

5.0 References

CIEEM (2018) Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater and Coastal, September 2018. Chartered Institute of Ecology and Environmental Management, Winchester, online at https://www.cieem.net/data/files/ECIA%20Guidelines.pdf

Collins, J. (ed), (2016), Bat Surveys for Professional Ecologists: Good Practice Guidelines 3rd Edition, BCT, London

Google Earth, (2017), Located on site postcode, online

Joint Nature Conservation Committee (2010). Handbook for Phase 1 habitat survey a technique for environmental audit.

MAGIC, (2017): Magic maps, NEPS licences and designated sites, online http://www.magic.gov.uk/Login.aspx?ReturnUrl=%2fMagicMap.aspx, accessed as report date.

Mitchell-Jones, A.J. (2004), Bat Mitigation Guidelines, English Nature, Peterborough

National Planning Policy Framework, 2023

Natural England (2007). Badgers and Development a Guide to Best Practice and Licensing. Natural England. Bristol.

Paul Edgar, Jim Foster and John Baker (2010). Reptile Habitat Management Handbook. Amphibian and Reptile Conservation, Bournemouth

Records: Herts Environmental Record Centre (2023)

The Great British Hedgerow Survey (2019), People's Trust for Endangered Species, online https://hedgerowsurvey.ptes.org/, accessed report date.

Tom Langton, Catherine Beckett and Jim Foster (2001). Great Crested Newt Conservation Handbook. Froglife.

UKHab (2020), *UK Habitat Classification*, UKHab, [Online] https://ukhab.org/ (Accessed at time of report)

Hedgerow Survey Handbook (2nd Edition), DEFRA, 2007, online at https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/69285/pb11951-hedgerow-survey-handbook-070314.pdf accessed on 20/10/2022